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**ARCHAEODIGIT**



## Common Methodology for preserving, interpreting, valorizing Archaeological areas in touristic ecosystems - D.1.2.1



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<b>Abstract</b>	<p>The Common Methodology (CM) of the ARCHAEODIGIT project establishes a standardized approach for managing archaeological areas integrating them with tourism, and leveraging digitalization. The CM is based on the results of the TRANSFER project and focuses on three core aspects: a) management of archaeological areas and their integration with the touristic ecosystems; b) capturing the uniqueness of each site by combining tangible and intangible heritage; c) utilizing digital tools, including immersive and interactive technologies, to enhance accessibility and engagement.</p> <p>The methodology provides a structured framework to assess the strengths and weaknesses of archaeological sites, identify optimal solutions, and define necessary competencies and training. It outlines key research techniques, data collection strategies, and quality assurance measures while ensuring ethical considerations and stakeholder involvement. By offering detailed guidelines, CM fosters collaboration among partners, enhances heritage valorization, and supports the digital transformation of archaeological research and tourism experiences.</p>



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## Intro: an integrated approach with touristic ecosystems within the Management Plan - the TRANSFER Project model

The paper presented here stems from the awareness that an integrated approach with touristic ecosystems within the Management Plan is only possible by starting from the elaboration of a Park management plan (WG1) from integrating tangible heritage (WG2) and analysing the function of a Archaeologica Park in a digital context (WG3).

The start point is that the management activity must therefore also look outwards in order to be efficient and effective, and the park is therefore not an isolated reality, but 'An Archaeological Park is a territorial area where a predominantly archaeological value of the landscape has been identified, integrated with the presence of historical, cultural, and environmental values, an object of a project for an integrated and sustainable development, in close cooperation with the local community' and the creation of a tourist ecosystem within which to operate must be an objective of the management processes of an effective and efficient Archaeological Park.

This is the definition of an archaeological park as theoretically elaborated within the TRANSFER Project, from which the Archaeodigit Project is theoretically based and of which it represents an articulation of the methodological approach<sup>1</sup>.

This paper is therefore the coherent synthesis of the results of the TRANSFER Project and how much has been elaborated with the Archaeodigit Project regarding the uniqueness of a cultural site (dealt with under WG2), the opportunities offered by digitalisation, including the use of interactive and immersive technologies for the valorisation and promotion of archaeological sites (dealt with under WG3) the planning and management processes of archaeological parks as a whole, and which must find their coherence and operational contribution in the Management Plan, the theme of this WG1.

### Premise

The process of transition from the management of the individual asset to that of the context and landscape has undergone a modern definition of Archaeological Park. **The Archaeological Park is therefore: "a territorial area where a predominantly archaeological value of the landscape has been identified, integrated with the presence of historical, cultural and environmental values,**

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Perna (ed.) *Common Sustainable Governance Model for Archaeological Parks* (= ΠΛΕΩΝ ΕΠΙ ΟΙΝΟΠΙΑ ΠΟΝΤΟΝ, Collana di studi archeologia e storia del Mediterraneo 3), Macerata 2023 (<https://eum.unimc.it/it/catalogo/808-common-sustainable-governance-model-for-archaeological-parks>).





**object of a project for an integrated and sustainable development, in close cooperation with the local community”.**

The Archaeological Park is part of the backbone of a community's cultural identity, where both tangible and intangible heritage must be understood and integrated to provide a holistic representation of the uniqueness of a cultural site.



## PART I- Mission and characteristics of the working group and expertise involved.

The relationship between the tourism industry and the management of archaeological sites is, however, very complicated and controversial, since going in both directions can trigger contradictory processes when the valorisation for tourism purposes is not consistent with the management of the quality of cultural heritage.

In fact, heritage as a non-renewable resource must be managed according to quality principles, ensuring its preservation in the context of sustainable development, objectives that risk conflicting with enhancement and development exigencies. Managing archaeological sites through an integrated approach with tourism ecosystems therefore implies balancing conservation with visitor involvement.

A further risk is that the management processes of the archaeological park do not take into consideration the necessary social, economic and cultural relations with the surrounding area, reducing the park to an island disconnected from the potential tourist ecosystem and an additional open-air 'museum' added in an uncoordinated manner to the area's tourist offer.

It is therefore a question of finding a balance between heritage conservation and the transformation necessary to meet modern needs, an objective that can be achieved by implementing specific actions and processes that are part of the same logic as the Management Plan. In this context, the cultural heritage and its knowledge are one of the elements that can guide towards socio-economic and cultural development only when the Park is considered part of a larger territory within which its management detects feedback, and on whose management depends the success of the Park's development policies.

The management of the Park should be based, therefore, on planning and territorial management policies clearly aimed at valorisation, but within the process of local development of the territory in accordance with the definition of Park given by the TRANSFER Project: 'An Archaeological Park is a territorial area where a predominantly archaeological value of the landscape has been identified, integrated with the presence of historical, cultural, and environmental values, an object of a project for an integrated and sustainable development, in close cooperation with the local community.'

### **Characteristics of the working group and expertise involved**

The local teams: Creating a Park Plan that goes "beyond the constraints" also means having a heterogeneous and multidisciplinary working group at your disposal, able to cooperate and combine the demands of protection with those of governance and changes in the territory and provides diverse perspectives on heritage assessment.



The challenge will be to merge all the contributions that will come from all the subjects, integrating the “bottom-up” approach, typical of local territorial planning, with the “top-down” constraints imposed from the legislation at the national level.

Each Park will have to identify an operational coordinator responsible for the local team. This will have to be a professional with expertise in territorial planning.

The local teams are made up of experts in the following disciplines:

- Archaeology.
- Economics.
- ICT.
- Conservation and restoration.
- Botany.
- Zoology.
- Geology.
- Cultural heritage (villages, architectural heritage, museums, etc.).
- Museology, accessibility and communications.



## PART II - Identification of the territorial context of reference

If the objective is to integrate the Park's management policies with the tourist ecosystem, the Plan must integrate the Park's management activities with the surrounding area, definitively overcoming the concept of an 'open-air museum'. and stimulating development processes by strengthening local systems and providing the basis for an active stabilisation of resources.

The Archaeological Park should not be seen only as an "open-air" Museum, or rather as an en plein air Museum, where the activities take place in the conservation, research, enhancement and exhibition through visits to the archaeological heritage. The new perspective on Parks and the current public interest led to a new strategy where "the Park become places for active production of culture, proposing themselves not only as knowledge-oriented sites but also as places devoted to entertainment, experience, and social activities" linked and oriented to a larger territory.

To this end, it is necessary to identify the reference context of the Park outside the **boundaries of the Park** itself, and in the context of the processes of enhancing planning and management as a function of the development of the tourist ecosystem, the enhancement of the Parks requires the transformation not only of the areas strictly within the Parks, but also of specific local contexts.

### II.1. The local context (the ancient territory)

It is undoubtedly true that the local context must be assessed taking into account the contemporary economic and social context, but it cannot disregard the historical context, in particular the ancient and synchronous context with respect to the definitions of the Archaeological Project within which the Cultural-based Tourism Ecosystem finds its *raison d'être*.

It is therefore necessary to preliminarily identify the 'archaeological-historical' reference area, the assessment of which will be functional both for the definition of the archaeological Project, and for the **assessment of the *ex ante* economic impact and the *ex post* economic impact**.

The ancient territories surrounding the archaeological sites have a significant impact on both local and regional contexts. At the local level, they connect communities to their historical roots, promoting cultural pride and providing educational opportunities, while also attracting tourism, offering economic benefits to the local area.

The ancient territorial context also presents homogeneous cultural characteristics correlated with those of the Park, facilitating the launch of thematic and chronological valorisation networks functional to the development of the tourist ecosystem.



As far as the economic context is concerned, the economic and commercial activities present within a radius of 15/20 km, which can be more directly involved in the management processes, should be considered, also highlighting their viability and connections.

## II.2. The context of the large area

The regional context, taking into account modern administrative limits, should be analysed on a dual scale: regional and provincial.

The regional level is necessary for the integrated promotion of shared heritage on a broad scale, enhancing regional identity and encouraging sustainable tourism practices. Regional development policies tend to have a broader scope and more funding, facilitating the integration of park conservation and enhancement with regional development. At the same time, parks can better contribute to the long-term economic growth of regions, including by strengthening cultural ties between communities.

In particular, it is emphasised the need for geographical and geological analyses, which take into account the main economic and cultural resources of the region, with particular attention to the activities and productions that can be linked to the start-up of tourist ecosystems: agricultural, enogastronomic, artisan, etc..

From the point of view of the economic impact assessment it is therefore essential that the ex-ante analysis is carried out not only on a local scale, but also on a regional scale.

The provincial level is the one that most facilitates, after the local one, the launching of network projects that can be implemented on smaller/medium contexts, taking into account the presence of e.g. other archaeological sites and museums in the territory, in order to develop a wider tourist ecosystem, thanks to the development of thematic and management networks.

It is evident that in the provincial context geographical areas can be identified that exceed or differ from the administrative ones, e.g. by referring to ancient contexts, relating to the ager of Roman cities, or to catchment areas. It therefore seems that the provincial context may be the one that is best suited to the start-up of a tourism ecosystem.

It should be pointed out that, given the project's area of interest, the opportunity could be considered to extend the project of networks also to the programme area (Italy-Croatia), in relation to localities with common characteristics.

The Tourism Ecosystem is therefore realised as a complex system, made up of the relationship between several subsystems linked to the valorisation and fruition on several thematic, chronological and territorial scales.



## PART III - Context analysis and Knowledge framework

### Framework analysis for identifying strategies and implementation projects

Knowledge framework must cover tangible and intangible heritage

Tangible heritage refers to material evidence such as ancient city walls, public buildings, monuments, and landscapes that physically represent cultural traditions.

Intangible heritage encompasses traditions, customs, myths, oral histories, and cultural practices that breathe life into these physical artefacts, imbuing them with cultural significance

#### III.1. Archaeological System

**Archaeological map of the site:** the detailed survey of the ancient remains is the initial and essential prerequisite for the realization of the Plan. It must consider both elements emerging from the ground and those that are underground. It must be digital, in 3d and structured in such a way as to support all the analyzes on the state of conservation and the projects necessary for maintenance and restoration.

**Archaeological map of the territory (map of absolute potential):** by archaeological potential we mean the probability that in a territory there are preserved archaeological remains buried. The map records all the archaeological evidence known in the area. The map must consider the emerging and buried structures known based on bibliographic, archival and survey data. It will have to be geo-referenced and constantly updated.

**Archaeological predictivity map of the site and the territory (map of the estimated potential):** the archaeological potential is configured as a predictive action when it is estimated for the areas in which there is no archaeological evidence. To do this, an in-depth study of the territory is necessary, taking into consideration various parameters (historical and environmental) and analyzing the spatial relationships between the known archaeological sites.

**Map of the archaeological vulnerability of the site and of the territory:** vulnerability is the parameter that must be taken into consideration for the determination of the risk of damage to the archaeological heritage in relation to anthropogenic events (public or private building works that include actions handling the soil) or natural occurrences (landslides, floods, earthquakes).

#### III.2. Environmental naturalistic System

The environmental analysis of archaeological parks is fundamental for their sustainable management as it also aims at cultural development and refunction.



It is to be approached through three approaches:

**The geological analysis** must provide information on the geological, morphological, pedological and hydrographic nature of the Park area and the surrounding area. The aim is also to highlight the major phenomena of optional danger in action (landslides, floods, earthquakes, etc.)

**The analysis of the vegetation-botanical** system provides information on vegetation and agricultural systems, considering the layout of the territory and the relationship between human action and the natural context, from whose dialogue the current landscape arises.

**Faunistic analysis.** With respect to the TRANSFER approach, it is also considered appropriate to add a paragraph on faunistic analysis in the context analysis, indicating which types of animals are present in the area, analysing their habits, relationships with human behaviour.

The analysis is to be carried out with three specific objectives in mind:

The first concerns the need to exploit environmental aspects from a tourism point of view, adding the possibility of an additional Plan document to section **X.5** of the TRANSFER.

Risks related to the environmental context should also be considered in order to assess how the environment can damage cultural resources. In this regard, IoT systems should be used for cultural heritage conservation that aim to monitor and control the environmental and material conditions of heritage in order to optimally preserve it.

The potential effect of infrastructural interventions and anthropogenic pressure related to the implementation of the management plan on the environmental context should also be assessed.

The elements of the cultural and natural landscape, which address the characteristics of archaeological sites, can be integrated using GIS as a processing tool, as a management platform for previously collected information, and as an analysis tool.

### III.3. Settlement system

It is necessary to identify the characteristics of the settlement system useful for the purposes of developing a touristic enhancement project of the territory based on the centrality of our archaeological park.

An in-depth analysis of the settlement context will also be fundamental for the elaboration of the Archaeological Project, allowing for a better contextualisation of the motivations leading to the creation of the Park.

In such locations other than the Archaeological Park, the aspects also related to receptiveness mentioned in the next point should be analysed in particular.



### III.4. The system of fruition and visit

#### A. Receptivity (hotels, restaurant, etc.)

In order to prepare the Management Plan particularly related to the tourist ecosystem, it is necessary to provide for a reconnaissance study of the accommodation activities present both in the Archaeological Park and immediately around it (reachable on foot) and in the local context in order to develop a complete tourist offer with the territory and integrated. The plan must contain the data of all the accommodation and non-hotel facilities to determine the actual availability of beds in the reference area at least at a provincial level.

The term non-hotel accommodation includes bed and breakfasts (B&B), room rentals, residences, flats for tourist use, inns, hostels, farmhouses, country houses, study centres, lodges and mountain refuges.

It is also important to consider all the facilities on the temporary rental market that can be found online via tourist brokerage sites and, for example, the Airbnb platform. In addition, accommodation facilities may also include restaurants, so the plan should include a catalogue of all facilities in the area in question.

With regard to catering in addition to restaurants, other types of catering should be considered: bars, fast-food outlets (including pizzerias), bakeries and even supermarkets.

It is important that among services, the presence of primary personal services, such as pharmacies, sports facilities, post offices, banks, ATMs, and places of worship are also taken into account.

When analysing accommodation, it is important to take into account the opening hours of these facilities, even if they are subject to change.

Seasonality/year-round should be specified, especially since many of the accommodation facilities, e.g. on the island of Krk, work seasonally and in winter most facilities are closed, so it should be specified which entities are open throughout the year.

#### B. Viability and connection (airport, road, stations, etc.)

It is necessary to collect information on existing infrastructures outside the Park, with reference to accessibility, both in relation to the main regional communication routes (railways, ports and motorways) and in relation to the provincial and local context (roads, car parks, public transport).

In particular, the following should be taken into account: motorway roads distances from major cities, public transport, airports, car rental possibilities, shuttle buses, availability of green means of transport (e-bike sharing), charging stations for e-bikes and e-cars; organised tours and (local) operators.

We will also have to consider alternative communication routes, in particular bicycle paths and cultural and religious routes with which to establish fruitful relations.



### C. Evaluation of the type of visitors, actual or potential

In order to develop an effective management plan, it is necessary to evaluate the touristic context—tourists' movement (arrivals and overnight stays) for the city area and the territory in which the Archaeological Park is located, as well as the data on the share of culturally motivated tourists.

Understanding the movement of tourists, including arrivals and overnight stays, also reveals those cultural interests that can be taken into account in pianification processes for the purpose of increasing visitors in the tourist ecosystem. It is indeed important to evaluate the type of actual and potential visitors, in order to develop an effective communication plan, which is also necessary for the purposes of preparing the future communication plan.

The analyses of type of visitors should take into consideration:

- Age.
- Type of tourism: religious, sport, fair related, school related, silver one etc.
- Ffamily units: families, couples, single.
- The presence of tourist with disabilities.

The analysis must consider the local, provincial and regional level.

These analyses will have to consider the local communities (with particular attention to schools and cultural institutions in the area), and the tourist potential, in order to focus on suitable strategies to meet the needs of the different audiences and promote the widest participation possible.

In this context, the collaboration between the institutions involved is crucial to provide data about tourism in the territory and in the specific cultural sector. This way, it will be possible to identify targets and strategies to attract new audiences or enhance those already existing.

## III.5. Historical and cultural context

Assessing the historical and cultural context in detail is crucial for the effective management of archaeological parks.

- Historical roadmap:** must take into account direct and indirect archaeological data and sources. A historical roadmap that includes both direct and indirect archaeological data helps to highlight the significance of each site.
- Cultural landmarks:** cultural landmarks that are not archaeological, but which in any case refer to the cultural context of the area must also be considered. Particular attention will be paid to the built heritage and in particular to museums and buildings of architectural interest, such as rural heritage buildings and places of worship.



An understanding of the history of castles and nearby cultural sites in fact links and binds visitors to the rich local, provincial and regional heritage.

These elements should be analyzed from a historical and architectural point of view, thus taking into particular account the possibility of incorporating them into enhancement itineraries of both a chronological and thematic nature. For example, the Sepino Archaeological Park and the Helvia Ricina Archaeological Area already highlight the importance of ancient settlements in their tourism initiatives.

Considering cultural attractions beyond archaeology can improve the overall cultural landscape.

Other potential tourist attractions close to the archaeological area should be considered both in the form of valorization projects and systems involving tangible assets (e.g. town museum networks, food and wine routes, etc.) and intangible heritage (**WG2**), also considering the major annual cultural events in the area, especially out of season.

### III.6. Legislative system

Identify and describe the regulatory system that determines the establishment of Archaeological Parks, considering the different legislative framework of Croatia and Italy, also indicating the Body/Administration that has the power to establish archaeological parks and/or archaeological zones and to manage them.

### III.7. Higher level constraints

Make a survey of higher level constraints within the area or surrounding it.

Such constraints could be of different nature, such as: environmental, naturalistic, building, historical-artistic, etc.

### III.8 Accessibility

In line with the statute, the medium-long term planning of the park must include, among its priority objectives, the correct and progressive removal of all the barriers, not only as physical barriers but also as psycho-sensorial obstacles, so that the park becomes truly open to all, without distinction of age, origin or psycho-physical conditions.



This is a topic that involves a large part of the individual implementation projects and therefore requires a precise framework analysis and the plan must therefore include a preliminary analysis aimed at recognizing the current situation and the main criticalities, for example the presence of dedicated parking lots, accessible routes for people with physical disabilities, exclusive toilet facilities, seats and rest areas, aids to the visit (e.g. communication devices represented by audio guides downloadable with QR-code, and route cards with texts in Braille, visits with interpretation/language facilitation, with sign language, tactile tours or website with LIS/ASL/IS window) we have to consider this different categories:

- Preparation methods for the visit, which includes the characteristics of the website with useful information.
- Reception services.
- Spatial and temporal orientation.
- Aids to the visit.
- Improvement of routes: practicability, information devices, rest areas, accessibility to monuments.

## III.9 Framework analysis for context and feasibility problems

### III.9.1. Economic context

The collection of relevant economic data can pose several challenges. These challenges should be addressed in order to develop evidence-based and results-oriented monitoring, reporting and evaluation.

The evaluation and estimation of impact may inadvertently lean towards those variables that are easier to quantify, e.g. visitor numbers. However, there is no obvious solution for identifying indicators related to more intangible social benefits, such as well-being or quality of life, or even sustainability in the enjoyment of parks and archaeological sites.

Furthermore, sometimes the available official data are too coarse for a detailed spatial analysis and thus useless to properly assess progress towards the Common Sustainable Plan goals (e.g. number of visitors). In these cases, it is important to supplement official data with other well-designed primary sources, such as questionnaires and surveys that can capture qualitative information about sites and visitors. Furthermore, in order to assess changes over time, it is important that these qualitative tools are designed in a continuous and systematic manner. Furthermore, relevant information should be collected continuously. ICT tools (**WG3**) are of great importance for the quantitative and qualitative monitoring of the activities promoted by the Park.



The increasing availability of Big Data and the greater granularity with which these data are available represent both a great opportunity and, at the same time, a challenge. In particular, the potential in the use of Big Data requires further investigation. Indeed, some of the available information is open source, free to use, but usually of general use. It is important to consider the specific needs of each site when using Big Data. The general proposal is limited to those indicators that may be easily available in different locations. It should be considered as a flexible provision as it can also be integrated and adapted in relation to the specific objectives and challenges of each site. Therefore, the archaeological site may decide to add some additional quantitative and qualitative outcome indicators closer to the desired results not included in the proposed common set. In this way, a more specific indicator system can be designed.

Moreover, after careful collection of locally available relevant information, the specific indicators identified, both qualitative and quantitative, can be refined based on the locally available knowledge base. This type of analysis must be preceded by a careful study of the local context from a multifocal perspective: economic, social and demographic.

The development of a Tourism Ecosystem is also closely linked to the possibility of forging fruitful relationships with local organisations that help collect data on tourism trends, but above all with organised tours and operators with whom the elaboration of the plan must be shared and the identification of the processes and activities whose sum leads to the development of the Tourism Ecosystem.

### **III.9.2. Use of ICT**

The management plan of each archaeological park must include the different technological possibilities available to achieve its strategic objectives. We live in the digital age. Digital content, apps and software are a huge part of our daily life. As such, they must be integrated into the strategy of the museum/archaeological park at every level, from conservation to research and dissemination.

In the information acquisition phase it is therefore essential to know the level of computerization and digitalization of the processes in place in order to implement a consequent transversal line. The goal is to have all the functional information in the Project phase to ensure coherence between the various ICT tools that will have to be designed, select the right ones and allow effective communication between them.

In this phase it is possible to organize the information according to an organization or model listed below:

- High immersion
  - VR viewers.
  - Architectural projections / Light design.



## Italy – Croatia

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- Medium immersion
  - AR/MR apps.
- Low immersion
  - Podcasts and apps for smart devices.
  - QR codes.
  - Videos on screens.
  - Website.
  - Social media.
  - Personal devices.
  - On-site equipment.



## PART IV –The Project: How to organize a Plan

### IV.1. Training methods and Modalities for the co-planning

Cooperation and public consultation in the management of resources and in the governance of the territory is a theme that involves not only the institutions but also the plurality of social actors and stakeholders in various capacities affected by management decisions. This process must be able to bring together all the contributions that will derive from a multitude of subjects who operate in the Archaeological Park and in the surrounding area in various capacities.

The centrality of the relationship between the Park and the socio-economic and territorial context is therefore evident as well as the complexity of the intertwining of interests and problems that must be faced; for this reason here, more than elsewhere, the perspective of inter-institutional co-planning seems to impose itself, with the aim of comparing and promoting the dialogue between the obligations of protection and enhancement with the life of the territory, linked to the needs imposed by agricultural management and building development. This perspective makes indeed a division between the “Museum” area and the territory completely unrealistic.

The engagement of cultural stakeholders, including policy-makers, economic actors, and local communities, is essential also in defining the cultural identity and uniqueness of archaeological sites. Historical research forms the backbone of this engagement, providing context and depth to the material and non-material aspects of heritage.

Involving local communities in the research process ensures that assessments reflect local values and cultural narratives. Engaging community members in documenting traditions, oral histories, and their connections to archaeological sites enriches the understanding of cultural identity (Wall & Nuryanti, 1996).

Integrated Cultural Heritage Management: Combining archaeological findings with local cultural practices creates cohesive narratives that reflect both tangible and intangible heritage.

It will be necessary to establish co-planning with the higher levels of government in the archaeology sector: for example, in Italy it will be necessary to dialogue with the Ministry of Culture and with the local Superintendencies of Archaeology, Fine Arts and Landscape, also to verify the progress of the project of the Management Plan of an Archaeological Park.

The Tourism Sector: The tourism sector, including local businesses and hospitality providers, contributes to the economic sustainability of archaeological sites. By collaborating with tourism stakeholders, heritage management can leverage joint marketing initiatives and receive feedback on visitor experiences, tailoring site offerings to enhance cultural tourism. This approach promotes a



comprehensive management framework that integrates cultural heritage with tourism, driving economic growth while ensuring responsible site usage.

To achieve the goals, it is useful to use an external facilitator: a neutral outsider, who is trained in managing conflicts and bringing people with diverse interests together. The facilitator can also be helpful in negotiating particularly difficult relationships and sharing the economic analysis: determining the site's potential economic benefit to the local community or ways to ensure that profits from tourism stay in the community.

## IV.2. Elaboration of the Project: Scientific Archaeological Project

Archaeological Park is therefore a territorial area where a predominantly archaeological value of the landscape has been identified, an area characterized by important archaeological evidence and by the presence of historical, cultural and environmental landscape values, an object of enhancement. Since the most relevant requirement for the construction of an Archaeological Park is constituted by the archaeological evidence that justifies specific management, the archaeological interest must be the pivot of the definition of the Common Model and the Guidelines for Planning and Management.

For this reason, the basis of the management project must be the **Scientific project**, capable of identifying the contents of the Park and the themes to be exploited (diachrony, monuments, relationship with the landscape) and determining subsequent choices.

The Scientific archaeological project constitutes the basis and the backbone of the entire plan project. The reasons underlying the constitution of the Park will be illustrated in the archaeological project as well as the elements that have led to the identification of a pre-eminently archaeological value of the landscape. This data will be objectified through the preliminary illustration of the consistency, type, characteristics and state of conservation of the archaeological remains. The archaeological project will therefore be the basis of the perimeter definition of the Park and the setting of different rules for different areas.

From the Scientific Archaeological Project emerge also the **Storytelling**.

### The Storytelling

From the Archaeological Project derive the Storytelling. The Storytelling is an essential component of cultural heritage management, offering a powerful means to convey interpretative narratives that resonate with diverse audiences. In the context of archaeological and cultural heritage, effective storytelling can preserve and valorize heritage while promoting inclusion among various communities. This chapter explores how storytelling can be harnessed in heritage interpretation, the



role of digital visualization techniques, and the potential benefits and challenges that arise from these practices.

Crafting interpretative narratives involves the creation of stories that convey the significance and context of cultural and archaeological sites. These narratives can be used to engage audiences and enhance their understanding of heritage.

**Cultural Significance:** Interpretative narratives are vital for highlighting the cultural importance of heritage sites.

**Engagement through Emotion:** Effective storytelling evokes emotional responses, helping audiences connect with the heritage being presented.

**Inclusive Narratives:** To effectively reflect the diversity of communities, narratives must incorporate multiple perspectives.

### IV.3. Summary interpretation of knowledge

The decomposition and the re-composition of different profiles of estimative analysis in a vision that is deliberately holistic of the area analyzed are oriented to the localization of the territorial structural reading targeted to support alternative strategical options according to different reference backgrounds. The synthetical interpretation of the territory analyzed represents the natural landing place of the analysis and the interpretations of the sectors briefly mentioned in the previous paragraph. It represents a fundamental moment of the Archaeological Park Plan as it is the base of its regulation function in respect to other plans and programs and a reference framework for the strategical orientation it must express. The outcome of this analysis will be the identification of the strategies and projects aimed at their implementation, and contents of the regulatory text.

The data analysis process for the project proposal is based on a synthesis organized on the basis of 2 methodological moments linked together:

#### a. (Synthetic interpretation and summary interpretation of knowledge in function of an integrated approach with touristic ecosystems

- Structuring factors.
- Characterizing factors.
- Qualifying factors or situations.
- Critical factors or situations.

An integrated approach to tourism development in archaeological parks also involves understanding several key factors. Structuring factors include existing infrastructure and organisational frameworks that support visitor engagement. The characteristic factors highlight the unique aspects of each site,



such as the historical significance of the Sepino Archaeological Park or the maritime heritage of the underwater archaeological site of Trstenik-Kaštel Sućurac. The qualifying factors are related to social and cultural contexts that enhance visitor experiences, while critical factors address challenges such as resource constraints.

#### **b. SWOT analysis**

A SWOT analysis can assess strengths, weaknesses, opportunities and threats in tourism. Economic sustainability should be a key theme in management and interpretative plans, ensuring that parks involve visitors while preserving the local cultural identity.

### **IV.4. Reference scenarios and indication for the realization and management of Projects**

Compared to the TRANSFER project, further guidance can be given for the development of strategies for the management of the Park.

#### **a. Archaeological park a key element in the development of a multi thematic and multi-scale tourism ecosystem**

The first is that of the need to make the archaeological park a key element in the development of a multi thematic and multi-scale tourism ecosystem, on a local, provincial and regional scale.

Strategies for implementing the Projects should include re-use of heritage spaces for modern purposes, such as hosting cultural events related to the territory, and the use of technology, such as virtual tours, to engage visitors by extending the offer to areas not linked to the Park, but within the tourist ecosystem. Community involvement and education help to keep the heritage alive while supporting sustainable tourism growth.

It is necessary to strengthen strategic lines that develop infrastructures for environmentally friendly visitors whose project evaluates the environmental impacts of climate change impacts in the management of the archaeological area, and which can be functionally integrated with Local tourism supply; provincial and regional

Strategies should be envisaged for the development of contingency plans that protect both archaeological integrity and tourist experiences.

In the context of communication, it is necessary to guide both local communities and visitors to understand the value and conservation of the heritage spread in the territory through communication and services. To succeed in this means having a powerful ally, the visitor, who supports the efforts of specialists in preserving the common heritage. Responsible tourism can help greatly in this process.



New integrated policies and approaches to cultural heritage management should be developed in this sense for the integration of tourists and local communities. Quality also refers to the ability to stimulate dialogue (and intercultural dialogue) between residents and tourists, based on the promotion of cultural heritage.

Combining these strategies in the design process, sites can attract tourism in a way that benefits both the economy and cultural preservation.

### **b. Assessing Cultural Identity and Uniqueness**

The second is the necessity to Assessing Cultural Identity and Uniqueness. Historical Significance: Evaluates the importance of a site in terms of its historical context, such as connections to ancient civilizations or significant events.

Social Relevance: Considers the site's role in current community practices and its impact on local cultural identity.

Tangible and Intangible Heritage Integration: Assesses how well a site represents a combination of material elements (monuments, artefacts) and immaterial cultural practices (oral histories, traditions).

These criteria provide a foundation for assessing a site's contribution to the collective memory and cultural identity of the communities to which it belongs

### **c. Tools and Techniques for Evaluation**

Evaluating the uniqueness of archaeological heritage involves using a combination of qualitative and quantitative tools to document, analyze, and present findings. Some key tools and techniques include:

Heritage Impact Assessments (HIAs): HIAs evaluate the potential effects of changes or developments on cultural heritage.

Participatory Action Research (PAR): Engaging community members in research helps gather qualitative data about local cultural identity.

Geographic Information Systems (GIS) for Spatial Analysis: GIS is used to analyze spatial relationships between archaeological sites and contemporary cultural practices.

## **IV.5. Elaboration of the Project: Archaeological Project and contents for the regulatory text**

The various actions, relating to the various strategic lines, should converge in the planning documents that the local government bodies are planning to launch ("implicit plan") or are already in place. The coordination of strategies is crucial in the coordination of each government body.



#### IV.5.1. Archaeological Project

The Archaeological Project will have to argue some of the main activities envisaged in the Park including those relating to the critical elements in relation to the conservation of the heritage, its relations with the territory, the need to increase the number of visible archaeological assets to enrich the quantity of offer and increase historical-archaeological knowledge about the city and the territory.

It must be remembered that archaeological sites are critical places to understand the cultural identity of a region. These sites not only show the material aspects of past civilizations, but also bear witness to the intangible aspects that shaped daily life, governance and social structure.

The objective will also be to contribute to the general organization of the territory aimed firstly at the articulation in areas or parts characterized by different forms of use, enjoyment and protection, but above all after the elaboration of the design frameworks included in the Plan itself.

Another objective will be to elaborate a research and excavation plan linked to the overall needs for the enhancement and use of the archaeological site, organized over a multi-year time horizon.

The Scientific Archaeological Project will also have to provide

- The definition of the areas to be excavated.
- The scientific research plan.
- The cataloguing program connected with the digitalization plan.
- The archaeological map realization and the territorial surveys.
- The project for the archaeological Antiquarian or Museum.
- The remote sensing surveys.
- Other specific archaeological problems analyzed case-by-case.

#### IV.5.2. Contents for the regulatory text

The regulatory text, to overcome the classification in zones, is organized by Mosaic of urban and territorial planning, Rules for areas, and Strategies which are the basis of the Plan Documents.

##### IV.5.2.1. Mosaic of urban and territorial planning: comparison with planning

The project for the archaeological area must deal with current planning and programming, regarding which common perspectives and potential synergies can be recorded, but also inconsistencies and negative interferences. In both cases, a dialogue with the bodies responsible for planning and programming on the area under study must be sought, not for a simple adaptation to current planning, but for a reciprocal contamination.

Relations with existing planning must be structured based on a common interpretative grid.

- **structural aspects** which, through interdisciplinary readings and interpretations, produce a systematic vision of the area under study: structures, characters, values and fragility.



A structured relationship with planning should be based on a shared interpretative framework. Structural aspects create a comprehensive view of the area through interdisciplinary interpretations, focusing on its unique characteristics and vulnerabilities.

- **strategic aspects** that outline project hypotheses not yet sufficiently defined to be supported by technical normative contents, but sufficiently sketched to initiate and configure forms of co-planning and shared participation.

The strategic aspects should outline preliminary project ideas that promote co-planning and community participation.

- **operational aspects** strictly connected to the administrative milieu in which they are located and therefore to the greater or lesser efficiency of the systems.

Operational aspects must consider the efficiency of local administrative systems.

- **technical-administrative** aspects that translate into norms. Gli aspetti tecnico-amministrativi dovrebbero tradurre le intuizioni in norme attuabili.

In this case, the possibility of certain competences (protection, enhancement, etc.) overlapping or overlapping must be taken into account, with obvious negative feedback in the event of non-alignment and non-sharing of objectives and methods between the different actors.

#### IV.5.2.2. Rules for areas

The areas must be identified through a series of “recognition measures”: perimeter and representation on a cartographic and cadastral basis; drafting of the updated map of constraints; filing and evaluation of individual monuments. In this way we can speak of protecting the archaeological landscape, which protects not only the emerging or underground asset and does not end in the individual areas in which there are direct archaeological constraints, but also includes and protects the surrounding areas that make up the environmental context in to which the areas are inserted, connoting the relative landscape. These areas must be equipped with rules for use intended to ensure the conservation of distinctive features and their enhancement.

Therefore, for each zone destination, two descriptive levels must be summarized (description of the zone; description of the existing forecasts affecting that specific zone) and a third propositional level, in which supplementary rules are introduced with respect to those already in place.

It will be useful to consider the higher level constraints (in addition to those related to archaeological protection) as opportunities for valorization and not as impediments, and therefore develop them with ad hoc projects to support the different Strategies chosen by each Park.

For example, the system of botanical-vegetation constraints could be used as 'ecological corridors' to connect the Archaeological Park with the surrounding natural areas, through a path of walks, stops and excursions in nature; or the geological-geomorphological constraints could generate interest in the history of the earth and its materials in a territory; or the constraints of historical construction could create thematic itineraries on the history of communities and traditional construction techniques, etc.



### IV.5.2.3. Strategies

If the decomposition and recomposition of the different evaluation analysis profiles are aimed at identifying a structural reading of the territory, the Plan must act simultaneously on different strategic lines.

Among the essential strategic lines, we highlight:

- The protection, study, restoration and static consolidation of the archaeological heritage.
- The preservation of both tangible and intangible elements is necessary to maintain the integrity of cultural identity.
- The management of the natural heritage and existing infrastructures.
- The organization of forms of didactic-recreational use.
- Development and management.
- Cultural identity.
- .....
- .....

For the purpose of creating a tourist ecosystem, a fundamental role is played by the strategy related to the preservation of the cultural identity, also in relation to the surrounding territory. Cultural identity, as manifested through archaeological heritage, plays a pivotal role in establishing a sense of belonging and continuity within a community. Archaeological sites are not only markers of historical civilizations but serve as touchstones for the collective memory and identity of modern communities. Both material (tangible) and non-material (intangible) aspects of heritage are integral in forming the cultural identity of a place, offering a rich and holistic understanding of a community's historical roots, values, and evolution. Assessing the cultural identity and uniqueness of archaeological sites is crucial for understanding their historical significance and continued relevance to contemporary communities.

The integration of the archaeological park in the local touristic ecosystem requires also active cooperation among multiple stakeholders from various sectors, including hospitality, gastronomy, transportation, and tourism. The success of these efforts hinges on the willingness of all parties to engage and collaborate in creating a seamless experience for visitors.

#### INPUT FROM CO-CREATION WORKSHOP: ACTIONS FOR THE ARCHAEOLOGICAL PARK

- Increase awareness of the presence of the archaeological site (for the population and for visitors).
- Promote the connection between the underwater site and the terrestrial part (e.g. Kastela Museum).
- Link history with local events (interest for scholars and tourists).
- Avoid trivializing history with too commercial events.



- Stimulate local pride and identity through training, education and inclusion of the population.
- Consider the park not as an isolated entity, but as a cultural and economic engine.
- Plan the involvement of local communities, companies and institutions (integration of tangible and intangible heritage / stimulation of local companies for park services / balancing conservation and enjoyment / inter-institutional collaboration / technological improvement for visitors).

### ***Preservation of tangible and intangible elements***

The preservation of both tangible and intangible elements is necessary to maintain the integrity of cultural identity.

The rationale for integrating both forms of heritage lies in their complementary nature in defining the identity of a place. Tangible heritage provides the physical framework, while intangible heritage breathes life into these structures. Identity is an amalgamation of historical continuity, physicality, and evolving narratives. Without the intangible aspects, tangible heritage often lacks context, and without tangible structures, the traditions and histories may lose their rootedness partnership between tangible heritage management and the preservation of intangible practices in their work on cultural tourism.

To assess cultural identity within an archaeological framework, certain criteria must be considered. These include historical significance, social relevance, and the role of both tangible and intangible aspects in community identity. The methods for such an assessment are multidisciplinary, drawing from history, archaeology, anthropology, and cultural studies.

Other strategic guidelines, referring to the specific objectives and the territorial context of each Park, can evidently be evaluated on a case-by-case basis and included in the planning.

The different actions identified in the strategic lines will converge in different projects, activities and initiatives (Plan Documents) which, together, will contribute to the enhancement and proactive conservation of the Archaeological Area.

#### **INPUT FROM CO-CREATION WORKSHOP: ACTIONS FOR IDENTITY (tangible / immaterial)**

- Categorize the objectives, material and immaterial, each for the specificities of each site (to make it popular and recognizable).
- Use the search for experiences that can emotionally connect visitors to the past.
- Create a holistic narrative that attracts visitors looking for authentic experiences.
- Maintain the historical authenticity of the site.



- Make the suggested approaches effective with practical actions.
- Interpreting tangible and intangible heritage in a multidisciplinary way.
- Ensuring communities have an active role.
- Improving guided use of technologies.
- Being careful not to commodify intangible heritage.
- Reflecting on the conservation of intangible heritage.
- Cooperating with different professionals (archaeologists, historians, anthropologists and operators).

As highlighted in each of the strategies, there are three transversal lines that affect all the strategic guidelines and which become indispensable especially in the processes of analysis, monitoring and enhancement of the individual archaeological assets and, more generally, of the Archaeological Area. The many transversal lines are:

## IV.6. Cross-cutting strategies

### IV.6.1. Connections with the information system

In the digital age, archaeological parks face the same challenges as many companies and institutions. One of these, probably the most significant, is the "digital divide". Archaeological parks must use new technologies to address the challenges of this new era, but at the same time they must be careful not to exclude part of the public and part of their staff.

Each archaeological site and cultural institution can have different goals for interacting with the public, depending on their specific characteristics and strategic objectives. For small cultural institutions in areas with low population, the primary goal is often to convert digital visitors into physical visitors, while fostering a strong local community. This can help the archaeological park become a destination that people visit multiple times a year. Digital content also offers a way to reach audiences with special needs who may not be able to visit the site due to its specific characteristics.

### IV.6.2. Accessibility

As already mentioned, the theme of accessibility concerns not only the removal of architectural barriers but also extends to the removal of all those barriers that hinder full and complete fruition. To this end, the accessibility plan is not aimed specifically at individual categories of users, but must be designed as a means of implementing truly inclusive strategies.



### IV.6.3. Research and innovation

In this sense, the Park management must set itself the objective that all projects that decline the plan are carried out taking into account the most recent acquisitions of scientific research: from restoration to digitalization, from communication to hospitality.

The development of research and the launch of methods that allow the dissemination of the most recent acquisitions of scientific research in the local community and among professionals active in the territory on which the Park is located is in fact one of the main objectives and strategies linked to the establishment of the Park. The Management Plan must set as a priority this responsibility closely linked to the use of ICT, but not only.

By developing research and innovation, the Park becomes a driving force for the economic development of the surrounding territory.

### Technologies for the green deal

The environmental impact of various technologies and of different activities for the management of the Park must be weighed carefully. Many technologies, particularly AI, are known to consume significant amounts of energy and may contribute to environmental degradation. However, green technologies have emerged as a viable alternative. These include technologies that are designed to minimize environmental harm, such as clean energy production, alternative fuels, and energy-efficient solutions that replace more harmful fossil fuels. As awareness grows around climate change and resource depletion, green technology offers a way to repair past environmental damage and preserve natural resources for the future.

Archaeological parks, with their connection to nature, present opportunities to incorporate renewable energy solutions that can reduce dependence on traditional energy sources. Solar panels, wind energy, and other forms of renewable power can be used to meet the energy demands of these sites. For instance, solar-powered lights or interactive stations activated by a dynamo can provide an eco-friendly way to engage visitors while conserving energy.

To complement these efforts, parks can consider alternative transport options, such as e-bikes, and install charging stations for electric vehicles, further enhancing the sustainability of the site while offering visitors a green alternative to conventional transportation.

Monitoring technologies, including smart sensors and demotics, can significantly improve the efficiency of resource use in archaeological parks. These systems can monitor water and energy usage, optimizing the operation of lighting, sprinklers, and other infrastructure. This can help reduce waste and minimize the need for physical intervention by park staff, ultimately contributing to more sustainable park management. For example, smart meters and IoT sensors can provide real-time data on energy consumption and water usage, enabling park managers to identify inefficiencies and address them quickly. This data-driven approach not only conserves resources but also supports the broader environmental goals of reducing pollution, promoting sustainable practices, and protecting local ecosystems.



## IV.7. Organization Chart and meaning

The Park should be endowed with scientific, legal and organisational autonomy. The establishment of the park will be accompanied by a Statute and a Regulation, which will define, in addition to the goals and objectives, the legally responsible subjects and the executive management bodies with their respective competences.

The establishment of regulations and the adoption of the Plan will clarify the park's objectives and the responsibilities of the management bodies, ensuring alignment with the local cultural identity and promoting sustainable tourism. Regulation and plan will have to take into account the park's insertion in the territory and thus within a tourist ecosystem.

Bodies and stakeholders within the framework of the Recreational Tourism Ecosystem will have to be represented in the management bodies.

The Rules and Regulations will also define the organisational structure, professional profiles, criteria for recruiting staff or granting qualified appointments, etc.

The management of the Park requires adequate personnel from a quantitative and a qualitative point of view. This is a must requirement for any organization, especially for a cultural organization.

According to the various scenarios, i.e. the characteristics and constraints specific to any management model (public/ private, direct/indirect, etc.) safeguarding the management autonomy, hiring of qualified and professional personnel must be guaranteed from the site's constitutional act onward.

A scientific director should essentially have archaeological skills to which transversal skills in ancient architecture/restoration/management should be added.

Those responsible for the enhancement of the park should select a person with an appropriate cultural background, whose role could be shared by other archaeological parks in the neighbouring community in order to make the tourist ecosystem coherent. Collaboration with neighbouring parks can indeed enrich resources.

It is also desirable that, according to size, the importance of the archaeological and environmental heritage, the catchment area and the financial investment, additional roles are taken on.

In fact, the park should have an organisational chart possibly divided into areas organised for the following five structural functions of the archaeological park:

- Economic sustainability.
- Recreation.
- Conservation.
- Innovation and R&D.
- External relations and networking.



In all the different areas the role of ICT can be fundamental, supporting the daily management activities and supporting the implementation of the Projects defined by the Management Plan. In smaller archaeological parks and museums with limited personnel, time is often a significant constraint, and staff may feel they lack the capacity to engage in training activities. This highlights the importance of integrating technological initiatives into the institution's strategic plan. By doing so, clear priorities can be established, and personnel time can be allocated accordingly. If there is insufficient time for training, it may indicate that the ICT tool is not critical enough to warrant implementation. However, if the tool aligns with the park's strategic objectives, time should be carved out from other activities to ensure its successful adoption.

Effective maintenance of technology in archaeological parks is essential for their smooth operation, and it requires careful planning. There are two primary options for ensuring maintenance: training staff or hiring external experts. In most cases, a combination of both is needed. Staff should be trained to use the technology on a day-to-day basis, while a dedicated maintenance budget should be allocated for extraordinary issues or technical support.



## PART V - Plan documents

Given the analysis of context, mission and strategies the Plan Documents already proposed by the Transfer and in addition to the Archaeological Project should integrate and take into account.

### **V.1. The Plan for: Management and implementation of the main infrastructure**

It is essential that the Plan of the archaeological park contributes to the valorisation of the territory considering or providing new nodes of interconnection between different types of infrastructure, both internal and external. This will include the planning of a fluid passage from a "fast external" systems, that connects with more distant territories, with the slow pathways/systems within the park. This cannot be separated from the study of "green infrastructures", understood as a multifunctional "network system" of interconnected parts, such as the ecological network, the network of accessibility and use, the historical-cultural network, the network of the agricultural fabric, the network of infrastructures and human settlements, the social network.

The plan must make the archaeological area a key component of the cultural-historical network, thus improving the entire green infrastructure, helping to create an equipped network that performs multiple connective functions. The strategic plan is implemented through actions related to the renovation of service facilities and the construction of new buildings and infrastructure for use functional to the operation of the Park and interconnected with the territorial system.

### **V.2. The Plan for: Restoration and static consolidation of the archaeological heritage: activities that need to be implemented to maintain physical preservation of the Archaeological Park**

This strategic plan is implemented through actions that concern, in particular, the encouragement of interventions to recover the archaeological heritage after:

- Analysis and monitoring of the main monumental components of an archaeological nature, their maintenance, restoration and enhancement.
- Archaeological investigations of the legibility of the main morphological and historical ancient components of the city and the territory. In this phase, the perspectives regarding possible research developments will also be explained, so that, starting from the knowledge gained, a program can be developed aimed at developing the still unexpressed potential of the area with the prefiguration of times, forms and actors of their promotion.



- interventions for the restoration and consolidation of the artefacts present, even if in a state of ruin.

### **V.3.The Plan for: Systems of equipment and services for the management of the social function of the Park**

The project will clearly define the choices to make the different components of the Park usable, give meaning to the visible remains and contextualize them in the historical landscape and integrate them into the tourist ecosystem. The project of valorisation foresees the use of the system of infrastructures and services of various nature that contribute to realize the general aims of the archaeological park, promoting the general settlement quality of the places in social and cultural sense.

The project must include the inclusion of the archaeological site within experiential cultural itineraries with a territorial character. Integrating different elements, management plans can strengthen the link between local and regional identity and cultural heritage, encouraging sustainable tourism and extra-local level and community involvement.

The Plan must include the construction of various infrastructures:

- a. Welcome, orientation and aids to the visit**
  - Reception and orientation point: illustrative brochures.
  - Signage outside and inside the Park.
  - Paths, including paths for the blind and disadvantaged categories of people.
  - Didactic panels (also with QR Code), with plans and captions.
  - Guided tours and / or audio guides, PDAs, etc.
  - Educational workshops, conference rooms and audiovisual projections.
  - Antiquarium/Museum.
- b. Comfort, ease of movement within the areas**
  - Sanitary facilities, including facilities for the disabled.
  - Resting points: refreshment points, including in case of rain.
- c. Further opportunities for study or entertainment**
  - Shop-bookstore.
  - Cafeteria-restaurant.
  - Guest quarters.
  - Entertainment areas for children.



**d. Services**

- Library, Documentation Center / Photo Library.

**e. Logistic facilities for research**

- Offices.
- Warehouses and archaeological deposits with alarm system.
- Archives.
- Laboratories.
- Restoration laboratory.

## V.4. The Plan for: integrated valorization of environmental heritage

The management plan should also include a specific plan for the protection and enhancement of the environment.

The plan should first assess how to integrate the exploitation of natural heritage into that of archaeological heritage.

The potential impact of infrastructure interventions and human pressure linked to the implementation of the Management Plan on the environmental context must also be evaluated. By the way, precisely to avoid negative effects of relationships with other nodes of the Ecosystem and the potential/ possible movement of visitors must be taken into account.

As an example, at the archaeological site of Fulfinum-Mirine in Omišalj, analysis of local vegetation can highlight the connection between agriculture and historical practices. Meanwhile, Helvia Ricina can take advantage of plant life studies to create educational programs on the local ecosystem. The possible dangers of visiting environmental contexts should be taken into account.

In the Sepino archaeological park in Italy, understanding the geological landscape helps manage risks such as landslides. The underwater archaeological site of Trstenik-Kaštel Sućurac must monitor marine conditions to protect its underwater finds. Overall, these assessments not only help safety but also link the parks to the surrounding community and their heritage.

## V.5. The Plan: to Preserving Cultural Identity

Preserving archaeological sites is critical not only for protecting history but also for maintaining the cultural identity of the communities connected to these sites.

Taking into account the data mentioned above, the elements that connect the Park to the tourism ecosystem, at local and regional level, must be constantly considered.



All presentations and information tools developed for the Park must reflect this approach to valorization and at the same time be consistent with the archaeological project, the communication plan and the storytelling prepared by the Park.

This Plan must be structured at different levels:

**Sustainability Practices:** Implementing eco-friendly preservation techniques ensures that archaeological sites can be enjoyed by future generations

**Community Involvement:** Active participation of local communities in preservation efforts can enhance cultural identity. When residents are involved in stewardship, they bring their local knowledge and narratives, enriching the preservation process. This community-centric approach aligns with the ideas of Dragojevic (1999) on multicultural and intercultural identity, where diverse local perspectives contribute to a richer cultural tapestry.

**Education and Training:** Offering training programs for local residents in conservation techniques empowers communities to take an active role in managing their heritage. This not only fosters a deeper connection to the sites but also promotes sustainable tourism practices that benefit both the economy and cultural preservation.

By doing so, the site can attract a wide range of tourists and foster a deeper appreciation for the region's cultural identity. Additionally, adventure and nature lovers of the area can potentially be included as visitors to the park, as they are interested in outdoor activities because of the park's natural beauty along with its historical significance.

#### **INPUT FROM CO-CREATION WORKSHOP: ACTIONS FOR IDENTITY**

- Engage local community to protect, present and support cultural heritage.
- Engage companies in partnership to have economic incentives (for the park) and generate financial return (for the company).
- Plan actions of narrative engagement of local communities to overcome resistance to long-term collaborative actions.
- Work on a quality approach to local population engagement activities, with professional staff, appropriate promotional activities and a more personal approach (to strengthen the response).
- Ensure equitable investment in long-term conservation (beyond immediate economic benefit for some stakeholders).
- Engage the community also with innovative financial incentives.
- Train and educate local communities to participate effectively in conservation efforts.
- Ensure cultural representation for the population (not only for tourism).
- Exploit digital platforms for participatory governance.



## V.6. The Plan for: Interpreting Local Narratives and Oral Histories

Interpreting local narratives and oral histories is vital for conveying the significance of archaeological sites to visitors and ensuring the preservation of cultural identity.

**Cultural Narratives:** Incorporating local stories and legends associated with archaeological sites provides context and depth to material remains. This enriches visitor experiences, allowing them to connect more profoundly with the heritage of the site. Eagleton (2002) emphasizes the importance of narratives in constructing cultural identities, underscoring how these stories link communities to their history.

**Educational Programs:** Developing educational programs focused on local narratives enables visitors to appreciate the richness of the community's history. This could include guided tours led by community members, workshops, or multimedia presentations that highlight local voices and perspectives.

**Sustainability in Interpretation:** Interpretation strategies should emphasize the interconnectedness of cultural heritage and environmental sustainability. Promoting local narratives that highlight ecological and cultural relationships encourages visitors to engage respectfully with the heritage, aligning with the sustainable tourism goals

## V.7. The Plan for: Public Engagement, Education and Recreational Functions

Public engagement is essential for fostering appreciation and understanding of cultural heritage. Organizing events such as heritage festivals, workshops, and open days draws attention to archaeological sites, promoting local traditions and narratives. These events create opportunities for stakeholders to interact with the public, share their knowledge, and foster a vibrant cultural dialogue

Activities consistent with the characteristics of the Archaeological Park must be planned. They will help the fruitful and lasting dialogue between specialists, scholars and users involving, local communities and cultural institutions of the territory and in particular schools. Public illustration activities can be carried out on aspects relating to the excavation, classification, documentation and restoration of archaeological finds. It is particularly useful to take a cue perhaps from ongoing research. Archaeology courses or stages, environmental education seminars, natural science laboratories, conferences relating to disciplines or issues related to the history of the site or the peculiar characteristics of the Park can be carried out periodically, also based on specific collaborations. As part of the fruition project, temporary events may also be planned and scheduled, such as shows within the preserved structures aimed at recreating the ancient environment, or courses dedicated to the illustration of technical or artisanal aspects of the production of objects



through methods of experimental archaeology. The Park will be able to organize exhibitions, parties, traditional and folkloric events.

Developing tailored educational materials and programs enhances public understanding of archaeological heritage. Collaborating with schools, universities, and community organizations helps create curricula that highlight the significance of local heritage. This not only educates the younger generation but also encourages sustainable tourism practices by instilling a sense of responsibility for preserving cultural identity.

The strategy should create prerequisites for the time spent by visitors in the Park to be extended by creating the infrastructure to formulate an integrated offer for archaeological visits and accommodation near the area to facilitate functional relations and strong interdependence (based on mutual and complementary interests, primarily in terms of services for tourists) between the Park and other places of interest.

#### **INPUT FROM CO-CREATION WORKSHOP: ACTIONS FOR THE MANAGEMENT OF THE PARK**

- Generate 'value' for all participants (economic value, educational value, local value, archaeological value).
- Create a vibrant economy linked to the local community (trade and work) and tourism.
- Coordinate the strategic vision with individual expectations (businesses and earnings / cultural institutions and conservation).
- Use shared governance models between conservation and modernity.
- Share knowledge and experiences.
- Design clear governance, binding agreements and transparent communication.
- Promote co-management by avoiding: divergences of interests / conflict with constraints and rules / not maintaining participatory involvement over time / total dependence on public funding / contradictions in operational coordination between different actors).

## **V.8. The Plan for Communication**

Particular attention must be paid to the communication plan which must contemplate the specific ways in which the Park decides to “explain” itself to its visitors. The communication must provide an in-depth analysis of relations with the territorial context and with the whole tourist ecosystem. This relationship should be bi-directional.

The communication plan must be integrated with a marketing plan dedicated to the site. All interventions foreseen by the plans, starting from the use of ICT, must be directed towards the realization of one or more stages of the marketing funnel. When developing the Management Plan for archaeological parks, it is crucial to identify the stages of the funnel most in need of attention and prioritize technological enhancements accordingly.



## Context and feasibility issues

### **a. Connections with the information system: research, documentation, maintenance and protection of the archaeological resources through digital supply chain**

We live in the digital age. Digital content, apps and software are an important part of our daily lives. Therefore, they need to be integrated into the strategy of the museum/archaeological park at all levels, from conservation to research and dissemination.

Planning the enhancement and integration of ICT systems in a Park should consider what is more suitable for each Park depending on the possibilities the technologies offer and the characteristics of the Park itself.

The main challenge we face today is to ensure coherence between the various ICT tools, to select the right ones and to enable effective communication between them. It is therefore a question of developing a digital chain in which all the steps, from data acquisition, to their conservation, to their use for management, to their analysis and use for valorization are designed in a coordinated way.

#### **INPUT FROM CO-CREATION WORKSHOP: ACTIONS FOR TECHNOLOGY**

##### Risks:

- gap between initial investment costs and low tourist flows.
- limited availability of qualified staff and high costs for technological applications / obscuring historical narratives with overly commercialized digital content.
- integration with existing systems and processes / usability and accessibility.
- training staff in the use of technology more than once a year, so that they can present solutions and give instructions to visitors / maintain equipment to ensure rapid reaction.
- Financial sustainability / Technological obsolescence / Digital divide of some visitors and staff / Over-dependence on technology / Cyber security of data.

##### Suggestions:

- Introduce the figure of the Digital Curator
- Connect promotion with the network of stakeholders involved in the project
- Organize workshops for children that could be carried out outside the park
- To mitigate risks, parks should adopt scalable and flexible technological solutions that complement rather than replace traditional visitor experiences.



Depending on the level of digitization owned and the one to be planned but also on the specific needs of each Park, it is important to envisage a use of ICTs that takes into consideration the role they can have in a Park:

- 1. Digital tools for the everyday life of an archaeological park**
- 2. Preservation of archaeological heritage**
- 3. Research**
- 4. Participation**
- 5. Technologies for visitors**
- 6. Promotion**
- 7. Cultural Identity**
- 8. Technologies for the green deal**

### **1. Digital tools for the everyday life of an archaeological park**

Digital tools have become essential for the everyday life of organizations and institutions worldwide. This includes archaeological parks. However, the freedom to choose these tools can vary depending on the organizational structure.

- 1.1. Management software
- 1.2. Facilities: digital tools for maintenance and security
- 1.3. Utilities and connectivity
- 1.4. Cybersecurity

### **2. Preservation of archaeological heritage**

In many countries the management and preservation of cultural heritage are often handled by separate organizations or departments. This division of responsibilities can complicate the implementation of cohesive and efficient preservation strategies. To address this, it is crucial to develop a comprehensive Management Plan that outlines shared strategic objectives and action plans, considering different possibilities:

- 2.1. Documentation of archaeological heritage
- 2.2. Digital cataloging of the archaeological findings
- 2.3. Monitoring of archaeological remains
- 2.4. Technologies for conservation and restoration

### **3. Research**

Investing in the specialization and professional development of its research staff can be a strategically advantageous decision for an archaeological park. Expertise in highly specialized fields often requires the acquisition of advanced tools and technologies to enhance the staff's skills and reputation. By making thoughtful investments in staff development and establishing permanent collaborations with universities and research centres, archaeological parks can position themselves



as prominent research hubs, attracting a dedicated community of scholars and experts to their premises.

With this approach it is possible to develop different operational lines:

- 3.1. Geophysics
- 3.2. Landscape research
- 3.3. Archaeometry
- 3.4. Image recognition and AI

#### **4. Participation**

Public archaeology focuses on engaging the public in the study, preservation, and interpretation of cultural heritage. Its main tenets include fostering community involvement, promoting education and outreach, ensuring transparency in archaeological practices, and emphasizing the ethical responsibility of preserving cultural resources for future generations. In the management plan of an archaeological site, these principles can be integrated through public outreach programs, educational workshops, and participatory activities that involve local communities in decision-making processes. Information and Communication Technologies (ICTs) can play a significant role in these efforts, in different directions:

- 4.1. Digital tools for promoting patronage and sponsorships
- 4.2. Digital tools for (continuing) education
- 4.3. Sharing platforms
- 4.4. Digital tools favoring bottom-up suggestions
- 4.5. Citizen science & crowdsourcing

#### **5. Technologies for visitors**

Technology can play a crucial role in enhancing the visitor experience in archaeological parks by aligning with the key stages of the marketing funnel. A potential visitor goes through several stages from first becoming aware of the archaeological park's cultural offerings to planning a visit and finally becoming a loyal supporter: awareness, interest, desire, action, relationship, loyalty, advocacy.

ICT can contribute by intervening on:

- 5.1. Services
- 5.2. Monitoring visitors' activities and tastes
- 5.3. On site technologies for visitors
- 5.4. Off site technologies for the park's community
- 5.5. Technologies for an inclusive visitors' experience
- 5.6. Technologies for multilingual experiences
- 5.7. Engaging children: schools and families



## 6. Promotion

Online content distributed by Archaeological Parks plays a key role in every phase of the promotion processes. Depending on the institutional strategy, digital initiatives can serve various purposes, from increasing visibility and attracting new visitors to retaining existing audiences and making heritage available to those who may never visit in person. The prioritization of these objectives depends on the strategic objectives of the Park.

Promotion in order to retain visitors and attract others can be achieved through:

- 6.1. The Website
- 6.2. The app
- 6.3. Social Media
- 6.4. Traditional media
- 6.5. Videogames

## 7. Cultural Identity

Technology can surely help in the integration of the archaeological park in the local touristic ecosystem

It is important for local tourism boards to adopt strategies that support alternative tourism approaches, such as slow tourism, across the region. This includes coordinating efforts in gastronomy, accommodation, transportation, and events to ensure a cohesive and sustainable experience for visitors. The archaeological park can sometimes become a catalyst for this approach in different ways:

- 7.1. Analysis of tourist flows
- 7.2. Platforms for DMC Operators

### a.1 Management of information through GIS

The formation of the Plan is a process of inter-sectoral and interdisciplinary synthesis, aimed at offering a systemic understanding of the reality of the Park and at defining a management strategy that is as “integrated” as possible. The analytical and strategic contributions of various specialists cannot simply be combined, but must be compared to interact throughout the entire process.

The development of the Plan is also a co-planning process in which knowledge, analysis and design, first, and then the management are dynamically intertwined.

Different phases of the planned activities, starting from the construction of knowledge frameworks, should not be conceived sequentially but as a process of mutual interaction. This being considered, the development of the Territorial Information System, managed through the GIS, plays a fundamental role.



Additionally, GIS offers significant potential for research and for all other activities related to the ordinary and extraordinary management of the site. In fact, GIS allows first of all to organize the information related to all management processes, both alphanumeric and cartographic.

Thanks to simple query it is in fact possible to access different types of information

Thanks to the possibility of superimposing geometric data and of carrying out both alphanumeric and spatial analyses, it also allows the production of new information documents.

## b. Accessibility

Once the critical points have been identified, the plan can be structured through long-term planning aimed at remedying the existing problems and pursuing a series of objectives aimed at improving the conditions of accessibility, with particular reference to disadvantaged categories.

- Preparation methods for the visit, which includes the characteristics of the website with useful information.
- Reception services.
- Spatial and temporal orientation.
- Aids to the visit.
- Improvement of routes: practicability, information devices, rest areas, accessibility to monuments.

**Preparation for the visit. Website: Information, story telling, involvement.** Of fundamental importance for visitors is the possibility of preparing for the visit, not only by acquiring all the basic information on the place you are going to visit (opening hours, parking possibilities nearby, presence of barriers, presence of personnel with specific training, presence of aids to the visit, type of routes) but also being able to have specific material to aid the visit. This is particularly important where there are physical and/or psycho-physical limitations, but not only. To this end, the creation of a website will have the aim of directing the public towards the Museum, making all the basic information available and prefiguring the visit experience to make it attractive and engaging. The material, which can be downloaded from the site, will allow everyone, without distinction, to prepare the type of visit desired with the appropriate support (videos in LIS language for the deaf, vocal indications for the blind, texts in Easy to read language for the disabled by psychic type, narrated and playful texts and videos for children, in-depth videos on themes dealt with within the Museum or on specific territorial contexts).

The ultimate aim will be to create involvement by a varied category of users, including the most demanding groups of visitors represented by young people, children, the disabled and the elderly.

**Hospitality and** Reception services. The reception reflects another relevant aspect, and it is therefore essential that, in addition to simple and easy orientation materials to be made available



upon the visitor's arrival and to the aids to the visit (see infra pathway information devices), visitors can be welcomed and followed by trained personnel. It is equally important, also in order to promote social cohesion and a sense of belonging and participation, that the Museum itself proposes and organizes courses on the theme of inclusiveness aimed at teachers, tourist guides and operators in the sector. It is advisable to provide training courses on the dynamics of inclusiveness for internal personnel.

**Spatial and temporal orientation.** Regarding the design of spaces and their management, there are currently no precise regulatory references. The theme is also very important for an easy way around the site by anyone, not referring only to people with visual impairment. Not knowing the best direction to move in, or the time necessary to visit a site, may cause an increase in physical and mental fatigue in anyone. To facilitate easy orientation, the environment must provide as much information as is useful for determining one's position with reasonable accuracy in relation to the environment itself and for identifying the most effective route for reaching the desired destination. Within an archaeological park, in addition to the spatial orientation, the temporal orientation also gains fundamental importance to allow the visitor to contextualize their position within a time frame and be aware of the times of visit

and the duration of the visit. The design of adequate signage and the use of maps that effectively represent the environment in which we find ourselves can be helpful. For this reason, the recommended interventions include the creation of tactile maps showing the route; the identification of natural signposts and the design and installation of physical "rest points"; orientation signs.

**Aids to visit, improvement of the tour, information devices, rest areas.** The objective of improving and extending the site use to all possible categories of visitors is crucially supported by the type of content that is made available and which must place the visitor at the center of the visit, allowing them to estimate the time it will take them to see the location, to choose the path based on the time available and the different degree of detail about the site. Fundamental to the achievement of this objective will be the website, which will make available to all users (the able-bodied, the sensory and cognitively disabled, and children) the information material suited to their needs. Furthermore, the staff providing the information and orientation signs, and simple and easy information material at the entrance, prepare the visitor for the visit and thus raise the perceived site quality. Finally, another important element contributing to the improvement of the overall experience is the setting up of resting places which enable, in particular, the elderly and children to rest between sections.

### c. Economic sustainability

A business plan should be drawn up, which should take into account the quality of the different types of visits offered to tourists (for example guided tours, tours with the aid of ICT tools and/or QR codes



etc.). Such plan should take into account the effects of the start-up of fruitful relationships with the territory related to the activation of a tourist ecosystem by evaluating in particular way evaluating the positive cash flows (benefits) produced by the project net of the value to date of the negative cash flows (costs) justified by the dynamics of the investments.

The park should be financially and accountancy independent. The current (ordinary) or capital (investment) income of the Park may come from: transfers from the State, local authorities and other public bodies; sales of goods and provision of services (ticket sales, event and promotional activities); capital income (real estate rentals, bank and postal interest, asset concessions); other revenue (private contributions, sponsorships, contributions from EU and international bodies).

The Park Plan must identify the main factors influencing the sustainability of the archaeological site, starting with economic activities on site: excavations, research, events, existence of private commercial entities, communication activities, education, etc.

In relation to tourism sustainability, it is evident that archaeological sites, like other cultural resources, were not created for the purpose of being tourist products. Therefore, an assessment of the tourist functionality of archaeological sites would allow the Park's management to develop tasks more accurately. This implies that specific marketing strategies could be developed based on the public functions of the archaeological site and the target market.

Regarding hardware and software, both need maintenance and updating. Is it better to spend more money at the start of the project or for maintenance? We would advise to spend more money at the beginning to make maintenance easier, but also add a little sum for maintenance in the original procurement when the institution "buys" the exhibit. Also, depending on the specifics of the project, it may be very important to allow for some budget to adapt utilities / existing tools to integrate new ones.

#### **d. Monitoring system**

A robust monitoring system is essential to effectively manage archaeological parks. Helps to assess visitor engagement, environmental impact and cultural heritage conservation.

The Monitoring and Evaluation Strategy includes:

- Collection, analysis and comparison of indicators that systematically monitor the success of implementation.
- Reporting.



While visitor statistics are easy to quantify, understanding the social impact is more complex. Combining official data with qualitative sources, such as surveys, can provide a more complete picture of the economic and cultural dynamics of each site. The use of ICT tools **(WG3)** can help to monitor park activities and visitor engagement. The development of a flexible set of common indicators would allow each site, such as Sepino, Trstenik-Kaštel Sućurac, Fulfinum-Mirine and Helvia Ricina, to adapt the framework to local conditions. This approach promotes sustainable tourism while strengthening local cultural identity.

For example, monitoring the number of visitors to the Sepino Archaeological Park can drive marketing efforts, while monitoring conservation at the Trstenik-Kaštel Sućurac underwater archaeological site ensures the protection of the finds. Incorporating cultural identity into the monitoring framework is essential. This includes collecting data on local traditions and community involvement. Both the Fulfinum-Mirine archaeological site and the Helvia Ricina archaeological area can benefit from continuous assessments, promoting sustainable tourism.

