



# EXISTING SITUATION ANALYSIS

D.1.1.1 EXISTING SITUATION ANALYSIS (ESA) REPORT



# Interreg



Co-funded by  
the European Union

## Italy – Croatia

---

 **ARCHAEODIGIT**

**ARCHAEOlogical DIGITal paths for an inclusive and sustainable tourism**

INTERREG VI-A Italy–Croatia 2021-2027, Priority Axis 4,  
Project No ITHR0200056

### **EXISTING SITUATION ANALYSIS (ESA) REPORT**

(Activity 1.1 - Deliverable D.1.1.1)

Comune di Macerata / Municipality of Macerata  
Parco archeologico di Sepino / Archaeological Park of Sepino  
Općina Omišalj / Municipality of Omišalj  
Grad Kaštela / City of Kaštela  
ETT S.p.a.  
Università di Macerata / University of Macerata  
Sveučilište Jurja Dobrile u Puli / Juraj Dobrila University of Pula  
Forum delle Camere di Commercio dell'Adriatico e dello Ionio / Forum of Adriatic  
and Ionian Chambers of Commerce



This document has been produced with the financial assistance of the European Union. The content herein is the sole responsibility of the authors and can under no circumstances be regarded as reflecting the position of the European Union and/or the Interreg Italy-Croatia programme authorities.



<b>PROJECT IDENTIFICATION</b>	
Project title	ARCHAEOlogical DIGITal paths for an inclusive and sustainable tourism
Project acronym	ARCHAEODIGIT
Project No	ITHR0200056
Programme	INTERREG ITALY-CROATIA Programme 2021 – 2027
Programme priority	Culture and tourism for sustainable development
Specific objective	4.1: Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation
Start of project	1 February 2024
End of project	31 July 2026
Project duration	30 months
Project budget	2.418.585,20 EUR – ERDF: 1.934.868,16 EUR
Work Package number – name	1 – Methodology for preserving, interpreting, valorising archaeological sites in a touristic ecosystem
Activity number – name	1.1 – Exchange of information, experiences and good practices on archaeological heritage management and its integration in touristic ecosystems
Activity responsible	OMI
Deliverable number – name	D.1.1.1 – Existing Situation Analysis (ESA) report
Deliverable version	1.0
Deliverable date	06/2024
Type	Document
Abstract	<p>The Existing Situation Analysis (ESA) report collects results of the Existing Situation Analysis with regard to each test area: Helvia Ricina (Italy), Sepino (Italy), Fulfinum-Mirine (Croatia) and Trstenik (Croatia).</p> <p>This report is a key document, useful to share information, knowledge and experiences regarding partners' archaeological areas and their surrounding territory (historical, cultural and tourism features, architectural data, natural economic aspects, management plans, methods and practices in use, etc.) and with regards to the 3 thematic project areas that are special interest of analysis.</p>



## CONTENT

Introduction.....	5
Sepino Archaeological park (Italy).....	9
Underwater archaeological site Trstenik-Kaštel Sućurac (Croatia).....	41
Archaeological site of Fulfinum-Mirine, Omišalj (Croatia).....	70
Archaeological area of Helvia Ricina, Macerata (Italy).....	111
General conclusions.....	145



## INTRODUCTION

The Existing Situation Analysis (ESA) report collects results of the Existing Situation Analysis with regard to each test area: Helvia Ricina (Italy), Sepino (Italy), Fulfinum-Mirine (Croatia) and Trstenik (Croatia).



This report is a key document, useful to share information, knowledge and experiences regarding partners' archaeological areas and their surrounding territory (historical, cultural and tourism features, architectural data, natural economic aspects, management plans, methods and practices in use, etc.) and with regards to the 3 thematic project areas that are special interest of analysis:

- Archaeological heritage management models and its integrated approach with touristic ecosystems;



- Identification of uniqueness of each cultural site and defining the cultural identity of the area (together with territorial stakeholders, policy makers, tourism actors and citizens) by combining tangible and intangible heritage (traditions, local products, legends, etc). Include the existing situation of training (programmes) and upskilling of staff working in the cultural- and tourism sector (public/private) for developing archaeological-tourism ecosystems.
- Opportunities offered by digitalization, including the use of interactive and immersive technologies to make Archaeological Sites more appealing and accessible for a wider audience.

ESA report represents an important mean, not only for sharing information, knowledge and experience among partners but it is also an important document for the archaeological area itself, as it identifies the existing condition, problems, needs, challenges and opportunities.

Each individual analysis was organized according the same system. The analysis is carried out on the basis of the evaluation of the STRUCTURING FACTORS - the set of components and relationships which concretely exist in the organization of local systems of each archaeological area (Chapters 1-3). The structuring factors and the results of analysis are summarized in the Conclusion (Chapter 4).

## STRUCTURING FACTORS

### **1. PRESENTATION OF THE ARCHAEOLOGICAL SITE**

Contains description of the relevant legislations in force at national/regional/local level regarding management/preservation/ valorisation of archaeological sites, general presentation of archaeological site, location of the site on the modern map (modern settlements, roads in the distance of 30-60 km), view of the site (1-3 attractive images from distance) and size of the area (in ha).

### **2. ELABORATION OF DOCUMENTS AND KNOWLEDGE FRAMEWORKS**

#### **2.1 ARCHAEOLOGICAL SYSTEM**

Includes archaeological area with the historical structures and modern infrastructure, list of visible historical monuments, descriptions and images of monuments as well as their present conditions.

#### **2.2 ENVIRONMENTAL NATURALISTIC**

Describes geological and geomorphological characteristics, botany and fauna. Classification of environmental problems (water, waste, etc.) and choices made for the conservation and enhancement of the landscape and the environment.



### **2.3 HISTORICAL AND CULTURAL CONTEXT**

Includes short description of the environment or landscape of the archaeological site, historical meaning.

### **2.4 SYSTEM OF FRUITION**

Deals with topics of opening of the area (free; closed with a fence, but always accessible; opening hours; only guided tours), access of the visitors to the entrance, way of moving through the area, available information for visitors on site (e.g. information centre, information panels, reconstructions, ICT and digital tools, tourist info point etc.), online outreach-website, official social media pages (X, Facebook, Instagram, Twitter, YouTube, TikTok) with analytics, museum and/or exhibition place, public facilities, pricing policies, presence of infrastructures for physical and cognitive accessibility and other structures potentially to be used for the visit.

Onwards, Identification of ICT and digital solutions FOR ARCHEODIGIT are elaborated with attention on immersion levels (high, medium, low), describing the ICT technologies/digital tools already used in the archaeological site. For each tool are provided available information about: way of use, accessibility, technical features, possibility of upgrading, way of hosting, fruition effort, accessibility to visitors, need of presence of personnel, maintenance features, target groups and stakeholders to digital activities, staff training, SWOT analysis concerning ICT solutions.

### **2.5 ECONOMIC CONTEXT**

In economic context are covered topics as: catchment area of the possible users/visitor, on-site public, available information on the segmentation of visitors, area of potential interest for the economic consequences of the Park management activity (regional level), accessibility by roads (primary, secondary), public transport, airport.

The system of museums, monuments of cultural interest etc., in the regional level, the system of tourist facilities (hotels, bed & breakfast, restaurants, etc.) and sustainable touristic ecosystem FOR ARCHEODIGIT.

Local/regional heritage policy/priorities, with regards to touristic development and activities, formulated or implemented in the protected archaeological area concerned, existing initiatives/methods/actions/projects currently/already implemented in archaeological site. New/innovative/potential initiative/activity that could have concrete possibilities to be introduced in archaeological site to strengthen touristic ecosystem, target groups and stakeholders that should be involved, opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) of archaeological area in relation to sustainable tourism activities and products (SWOT analysis), staff training projects linked to economic and tourism development.



### **3. MANAGEMENT PLANS**

The general organisational structure was presented regarding planning and management of archaeological park. Different bodies involved in the planning and management were listed and briefly described, including their role, competencies and tasks. The relationship with the national level was briefly specified as well.

In the case of the already existing Management Plan, its priorities were described as well as vision, management objectives, expected results, existing and potential opportunities and problems. In the case of no Management Plan, the management objectives set out in any other specific document (e.g. policy document) were presented as well as the priorities and activities.

### **4. CONCLUSION**

Having taken into account all the above STRUCTURING FACTORS, conclusion summarises the major problems, constraints and threats affecting archaeological sites as well as challenges and opportunities, analysing the following aspects:

- 4.1 Characterizing factors - components and relationships that characterize the system of archaeological site, giving it an identity that distinguishes it from others.
- 4.2 Qualifying factors - elements or conditions that give archaeological site a certain quality, importance or value, without changing its structure or characteristics.
- 4.3 Critical situations, sets of elements or conditions of degradation or de-qualification or alteration of archaeological site.
- 4.4 Challenges and opportunities - indicates challenges and opportunities of test area.



Parco archeologico di Sepino / Sepino Archaeological park  
**ARCHAEOLOGICAL PARK OF SEPINO (ITALY)**

**STRUCTURING FACTORS**

**1. PRESENTATION OF THE ARCHAEOLOGICAL SITE**

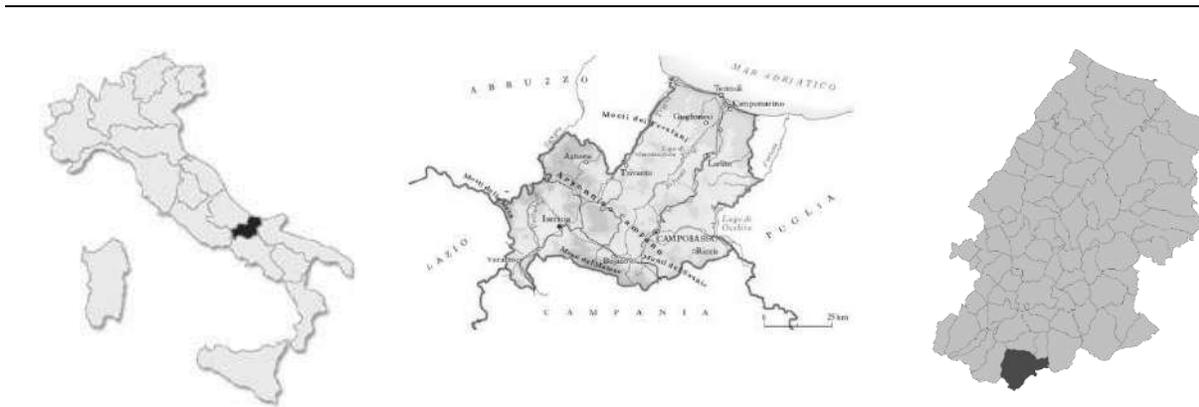
**1.1 Relevant legislations in force at national /regional/local level regarding management/preservation/valorisation of archaeological sites**

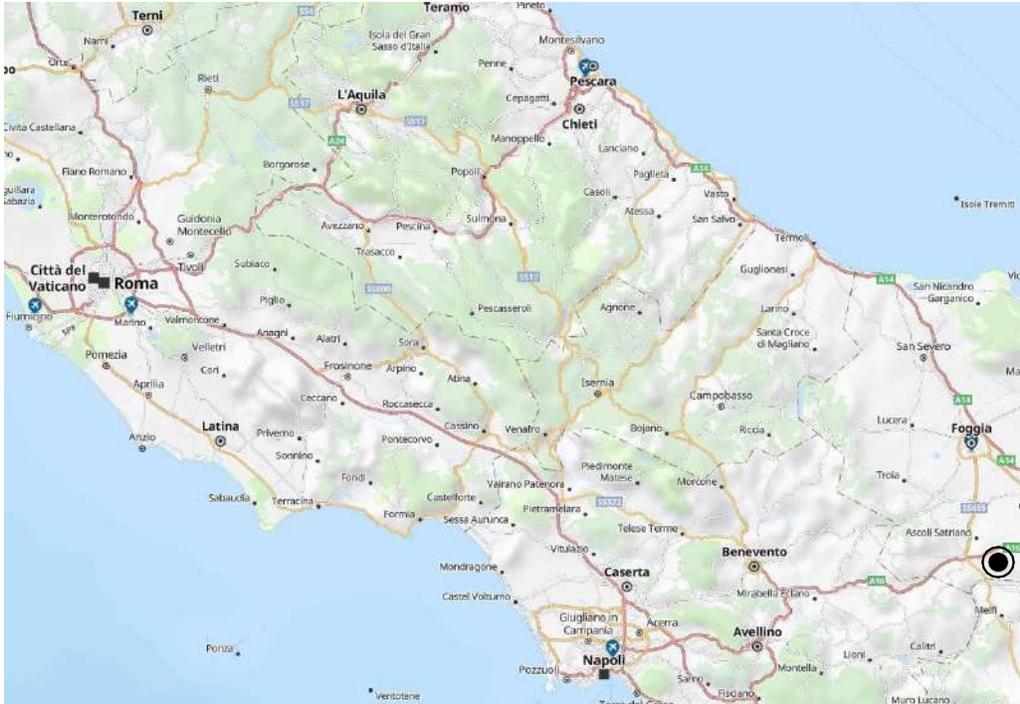
At a national level, the protection and valorisation activities of the Archaeological Park are regulated by the Code of Cultural Heritage and Landscape (Legislative Decree no. 42/2004), by the current Procurement Code (Legislative Decree no. 36/2023) and by the Regulation on public works contracts concerning protected cultural heritage (Ministerial Decree 22 August 2017, n. 154). At a regional level, valorisation policies in the cultural field are related to the regulations for the use of European (e.g. POR) and National (e.g. FSC) funding.

**1.2 General presentation of the archaeological site**

1.2.1 Location of the site on the modern map (modern settlements, roads in the distance of 30-60 km).

The Sepino Archaeological Park administratively falls within the municipality of Sepino, located in the southern sector of the Province of Campobasso, bordering with the territories of Cercemaggiore (CB), Cercepicola (CB), Guardiaregia (CB), San Giuliano del Sannio (CB), Morcone (BN), Pietraroja (BN) and Sassinoro (BN).0





View of the site



1.2.3 Size of the area (in ha).

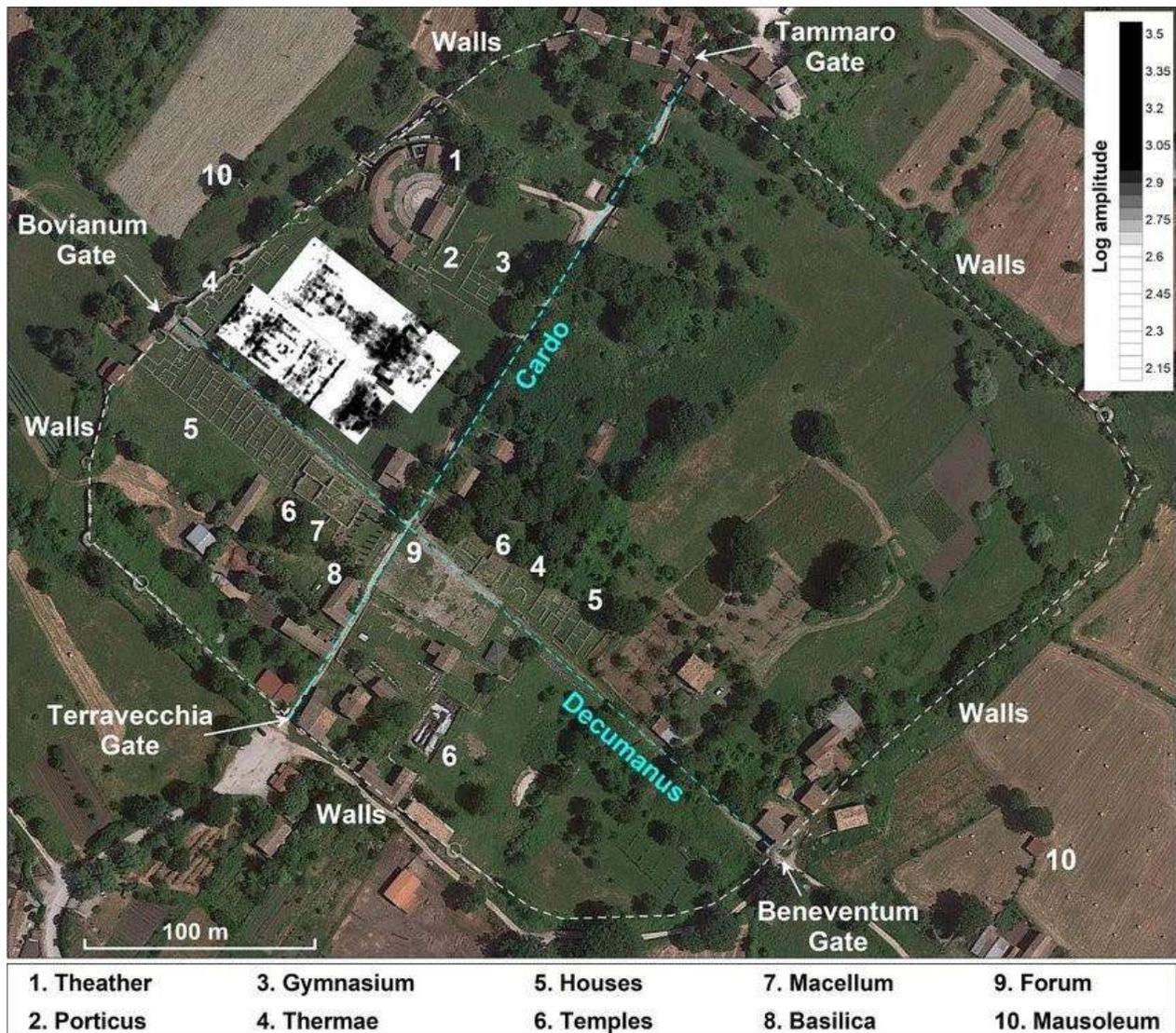
The city walls of Saepinum, which extend for over 1280 m, enclose an area of approximately 12 ha.



## 2. ELABORATION OF DOCUMENTS AND KNOWLEDGE FRAMEWORKS

### 2.1 ARCHAEOLOGICAL SYSTEM

2.1.1 Map/plan of the archaeological area with the historical structures and modern infrastructure.



2.1.2 Here is a list of the most important monuments of the archaeological area:

- walls and gates;
- theatre;
- campus/porticus/piscina complex;



- d) monument of Numisius Ligus;
- e) baths of Porta Bojano;
- f) macellum;
- g) basilica;
- h) h) forum and public buildings;
- i) fountain of the griffin;
- j) Mausoleum of Ennius Marsus.

### 2.1.3 Short descriptions of each monument or group of monuments.

#### *a) Walls and gates*

The walls of Saepinum, made using opus reticulatum, over 1 km long, enclose an area of 12 hectares. They were equipped with 35 towers, positioned in the most exposed points of the fortification. and four monumental single-arched gates at the ends of the two main streets. In addition to their defensive purpose, the walls, dating to the Augustan period and financed by the imperial family, were intended for monumental display, propaganda, and strategic control of the territory.

#### *b) Theatre*

The theatre of ancient Saepinum was built in the first decades of the 1st century AD, close to the walls, in an area away from the urban centre. It could accommodate around 3,000 spectators and the structures reached a height of circa 11 meters from the orchestra floor. The farm buildings constructed on the ancient structures are the result of the transformations that took place starting from the 18th century, whose historical and architectural value was recognised and preserved.

#### *c) Campus/porticus/piscina complex*

The complex (probably first half of the 1st century AD) occupied a vast area located between the theatre and the cardo. It consisted of the campus, a space delimited by a portico with a large pool (piscina) inside. Only partially excavated, it was functional to the activities that took place in the theatre, as has been attested in many other Roman cities.

#### *d) Monument of Numisius Ligus*

The funerary monument of *P. Numisius Ligus*, an illustrious figure who held numerous military and civil positions, was located outside the city along the main road axis, according to Roman custom. The monument (first half of the 1st century AD.), reconstructed in the 20th century, is built according to the so-called "altar-type". On



the façade we can read the dedicatory inscription, which recalls the military career and municipal offices of the deceased who erected the monument for himself, his wife and his son, who died prematurely.

e) *Baths of Porta Bojano*

The baths consist of a series of rooms laid out in an area adjacent to the city walls. The thermal complex is characterised by the presence of apsidal rooms and heating systems that are typical for Roman thermal technology. Hitherto dated to the 2nd century AD, the baths are currently being excavated, which should allow us to more clearly define their chronology, extension and integration in the surrounding urban fabric.

f) *Macellum*

Located along the *decumanus*, the *macellum* was a public building intended for the sale of food, with rooms intended for commerce opening up around an internal courtyard. Financed by *M. Annius Phoebus*, an official in the imperial cult, its location near to the public spaces but in a slightly set back position is significant, so as to be central without disturbing the activities carried out in the immediate vicinity.

g) *Basilica*

A very popular resting and meeting point, the *basilica* accommodated a wide spectrum of activities, but it was mainly the place where justice was administered. The inscriptions allow us to attribute the construction to *L. Naevius Pansa*, one of the most important magistrates of *Saepinum* in the Augustan period. The building, consisting of a single rectangular hall divided internally by columns re-raised at different times, and of a closely connected internal hall (*tribunal columnatum*), was consolidated and restored in the 4th century AD and possibly used as a place of Christian worship in the late Antique period (4th-5th century AD).

h) *Forum* and public buildings

The *forum*, originally surrounded by municipal buildings, headquarters of corporations or cult shrines, is located at the crossroads of the *cardo* and the *decumanus*. The paving preserves the inscription of the magistrates, who constructed it at their own expense, and numerous recesses and imprints testifying to the presence of fountains, statue bases and honorary monuments, such as the arch dedicated to *L. Neratius Priscus*, a famous jurist originally from *Saepinum* and friend of emperor Trajan.



*i) Fountain of the Griffin*

Located on the long side of the forum and restored in the early 1970s, the Fountain of the Griffin is a small monument, financed by one of the most important magistrates of Saepinum from the Augustan period, C. Ennius Marsus and his son L. Ennius Gallus. It is possible that the magistrate had donated part of the funds intended for theatrical or gladiatorial shows to public works: the griffin was in fact connected to the goddess Nemesis, a divinity of fate particularly venerated in the gladiatorial world.

*j) Mausoleum of Ennius Marsus*

The mausoleum of Ennius Marsus belongs to a type of monuments typical of the Augustan period, probably inspired by the tomb of Alexander the Great. On the façade we find the dedicatory inscription containing the *cursus honorum* of the owner, one of the most important magistrates of Saepinum in the Augustan period, together with other symbols of power: the *sella curulis* (the folding seat, a prerogative of the magistrate), two fasces and two funerary lions crushing a warrior's head with one paw.



## 2.1.4 Images of the most important monuments



*Archaeological area of Saepinum. Macellum and Basilica.*



*Archaeological area of Saepinum. Roman theatre and rural buildings hosting the Museum.*





*Archaeological area of Saepinum. Mausoleum of Ennius Marsus outside Porta Benevento.*

#### 2.1.5 Present condition of the monuments (visibility, quality, maintenance).

The monuments of Saepinum were largely excavated and restored by Valerio Cianfarani between 1950 and 1955. Despite the integrative character, the frequent regularization of wall heights, and the use of cement mortars, on the whole the site still appears solid and monumental, legible in its topographical and architectural configuration, and there are few cases in which the uncontested growth of weedy vegetation prevents the visibility of the monuments.

Sepino presents the most frequent causes and mechanisms of deterioration due to the constant degenerative action exerted by the environment on ancient, modern and contemporary building materials rainfall, stagnant water, runoff water, variation of temperature and relative humidity values, wind, vegetation and biological degradation. The lack of decades of systematic maintenance is a worsening element of the current conservation picture. Both masonry and pavement apparatus are subject to continuous biological attack, most evident on surfaces less exposed to sunlight.



Particularly invasive is the presence of lichens, which grow with remarkable speed and vivacity in Sepino, extending to any type of surface, on any material, and even in areas generally little frequented by these microorganisms. It is possible that a significant contribution to the development of these species comes from the cleanliness of the air and the low rate of pollution in a biologically rich and humid environment. Lichens are a potential long-term problem because of the highly damaging effect they exert on the ancient substrate in some cases, as well as rendering some decorative, architectural and epigraphic details almost illegible. Currently, the Sepino Archaeological Park has cleaning services, facility maintenance, and routine maintenance of the green surfaces of both the areas open to the public within the wall circuit and the outdoor areas close to the city walls.

Work is underway to design scheduled maintenance services for the archaeological architecture, decorative features, and rural buildings scattered within the area.

## **2.2 ENVIRONMENTAL NATURALISTIC**

2.2.1 Description of geological and geomorphological characteristics as well as of botany and fauna.

The settlement of Saepinum is strategically located close to the Matese mountains, along the Pescasseroli-Candela tratturo (sheep track), at the crossing point with the Trasmontano itinerary that led from Campania to Sannio.

The territory civilization by the different populations in the Sepino area are, therefore, inevitably related to the peculiar geomorphological, hydrogeological, and hydrological characteristics of the Matese massif. Specifically, the Molise side of the mountain system, centred on the top of Monte Miletto (2050 m above sea level), takes on an arcuate conformation, with a NW-SE alignment, delimited at both ends by the valleys of the Volturno and Tammaro rivers; along this axis, historically shaped and defined by both the road connection between the villages of Aesernia and Beneventum and the course of the herd roads, two important intramountain geomorphological basins are notable: the Sepino plain, characterized by a large alluvial fan shaped by the Saraceno Torrent, and the Boiano basin. Specifically, the Saepinum area belongs to the hydrogeological unit of Monte Moschiatturo, 1471 m above sea level, tectonically overlapping the adjacent Matese unit; the underground water circulation is characterized by the presence of a klippe, i.e. by a complete isolation between the two carbonate aquifers, both due to the different lithological characteristics of the stratigraphic series and the interposition of terrigenous



sediments of a flyschoid nature. The alternation of lithotypes with different permeability divides the infiltration waters into several aquifers, which emerge in large numbers, around sixty, at various levels of the unit. This hydrological peculiarity manifests itself clearly in the Sepino area where, in the upper part of the Saraceno torrent basin, the perennial springs of Pozzo di Miele, at over 1050 m above sea level, of Acqua Fredda, at around 860 m above sea level, are found near the remains of the Samnite fortification in the Terravecchia area, with an average annual flow rate of around 13 l/s, and, slightly lower, at 750 m above sea level, at Fonte San Nicola, with an average flow rate of over 9 l/s, and Fonte Atello, with an average flow rate exceeding 2 l/s. The most important springs in the area are concentrated in the lower part of the mountain complex, at an altitude of around 550 m above sea level, near the Altilia area: the Fota spring, with an average flow rate of 45 l/s, and the Fonte Emma, with an average flow rate of over 20 l/s, promptly reported, confirming their importance, in the cartography of the Kingdom of Naples drawn up in 1789 by Antonio Rizzi Zannoni.

Regarding natural vegetation, the Park is inserted in a complex mosaic, in which all the vegetation bands typical of the hilly and mountainous environments of the Matese can be clearly recognised, characterized by thermophilic deciduous woods in which, depending on the exposure, steepness prevails and of the edaphic factors, the downy oak (*Quercus pubescens*), the black hornbeam (*Ostrya carpinifolia*) and the turkey oak (*Quercus cerris*). At higher altitudes, the forest system is dominated by beech forests, with initially thermophilic characteristics, which then take on a more microthermal character with increasing altitude. In the lower areas, beech (*Fagus sylvatica*) is associated with turkey oak (*Quercus cerris*), maples (*Acer pseudoplatanus*, *A. platanoides*, *A. opalus* subsp. *obtusatum*, etc.) and yew (*Taxus baccata*). The arboreal vegetation that borders the waterways is composed of species of the *Salix* and *Populus* genera as well as some mesoheliophilous species such as *Ulmus* spp., *Fraxinus* spp., *Carpinus*

Regarding wildlife, the Park is an integral part of the habitats frequented by the typical Apennine mammalofauna. The faunal heritage of the area has changed over the centuries and, in the past, it was certainly richer and more varied than today, both in terms of number of species and size of populations. Evidence of this remains the numerous toponyms linked to the spread of some faunal species, such as the zoonyms linked to the bear (*Ursus arctos marsicanus*), now absent in the Matese area for over two hundred years. The Wolf (*Canis lupus italicus*), however, which has always struck the imagination of local populations, represents a constant in the faunal heritage of the Matese area. The avifauna is ennobled by the presence of numerous species of birds of prey (buzzards, kestrels, kites, etc.), easily observable



even from within the archaeological area.

### 2.2.2 Classification of environmental problems (water, waste, etc.).

The main environmental problems for the park area can be traced back to the impact, both on the landscape and in terms of the quality of surface and underground water, generated by the livestock farming, even of an intensive nature, which in recent decades has settled in the territory of the Sepino plain. In the areas located near the park it is possible to find various livestock activities intended for the breeding of cattle, calves, sheep, goats and pigs. In particular, the numerous plants intended for the poultry supply chain are of concern.

### 2.2.3 Choices made for the conservation and enhancement of the landscape and the environment.

Regarding the protection of the territory from environmental pressure factors, the territory of the Sepino park falls entirely within the hydrographic basin of the Volturno river, administered by the Southern Apennines District Basin Authority - Unit of Management Volturno (euUoMCode ITN011), based in Caserta. For the Park area, therefore, the protection rules established by the current Hydrogeological Plan and by the Water Management Plan. Regarding landscape protection, the areas in which the Park falls were affected by the Ministerial Decree of 9 May 1975 "Declaration of notable public interest of an area in the municipality of Sepino". For aspects relating to naturalistic protection, the park area is affected by the establishment of the Matese National Park (Law n.205/2017).

## 2.3 HISTORICAL AND CULTURAL CONTEXT

### 2.3.1 Short description of the environment or landscape of the archaeological site (e.g. mountain, valley, plain, natural landscape, modern urban centre, etc.).

Scattered along the Pescasseroli-Candela trail, as it winds through the fertile Tammaro Valley, are numerous archaeological treasures. Among these, the Roman city of Saepinum stands out as one of the most significant and captivating. Strategically positioned at the foot of the Matese massif, Saepinum's enduring connection to this ancient trail is evident even in its name, which is thought to derive from the Latin verb "saepire" (to enclose), alluding to the fenced-in stockade associated with transhumant grazing practices, a tradition that continued within the



city's forum pecuarium (cattle market). Preceding the Roman city was a fortified Samnite settlement perched atop the nearby mountain known as "Terravecchia." This stronghold, likely the one captured by the Romans in 293 BC during the Third Samnite War, was subsequently abandoned by its inhabitants, who relocated to the valley floor. The site chosen for the new settlement was strategically located at the convergence of two crucial routes: the Pescasseroli-Candela trail and a transversal path descending from the Matese towards the hills of the Tammaro Valley. This advantageous position transformed Saepinum into a bustling centre of commerce and cultural exchange.

2.3.2 Historical meaning (e.g. chronology, historical background, historical development of the site, important historical events connected with the site, etc.).

The Roman city we see today represents the final stage of a series of superimposed interventions. While the road axes follow Roman urban planning principles, they are not perfectly orthogonal, reflecting the influence of the two aforementioned major roads. Not all of the Roman city has been unearthed. The excavated areas, mainly explored around the middle of the last century, constitute the most important and significant parts of the city and, above all, allow for a more than adequate understanding of its urban organization.

#### The Flourishing of Saepinum

The city's first layout dates back to the 2nd century BC, and it reached its peak during the Augustan era when the most important buildings were constructed or restored: the forum stands at the intersection of the cardo and decumanus, surrounded by the basilica, a series of public buildings, the triumphal arch, and the macellum. shops, residences, fountains, a mill, and a dye house lined the streets. Further away were the theatre, the campus/piscina/porticus complex, and the baths. The quadrangular city walls, with their four monumental entrances and necropolis areas located just outside the city gates, are also clearly visible.

#### Decline and Abandonment

The urban layout remained vital at least until the 4th-5th centuries AD, when there was a renewed building boom, probably following the earthquake of 346 AD that struck Samnium and Campania. This was followed by a severe economic and demographic crisis, exacerbated by the devastation of the Gothic War (535-553 AD) and reflected in the abandonment and collapse of the most important buildings in the centre, the shrinking of the inhabited area, the burial of the forum's pavement,



and the sepulchral use of some areas on its margins.

### The Rise of the Medieval Settlement

In 667 AD, the entire plain was ceded to a colony of Bulgarians by the Lombard dukes of Benevento, and agriculture was revived by the Benedictines of the monastery of S. Sofia di Benevento. The recovery lasted until the middle of the 9th century AD when the territory was threatened by Saracen raids and the population moved to the surrounding hills in search of safer places, leading to the subsequent birth of the castles. The population of Roman Sepino thus moved to the Castellum Sepini, the present-day Sepino, located halfway up the mountainside, in a safer and more defensible location. The situation remained unchanged until the arrival of the Normans in the first half of the 11th century AD, when the territory of Sepino, together with that of Campobasso, became one of the baronies of the County of Molise.

### A Modern Renaissance

In the modern era, the agricultural vocation of the territory became increasingly evident, so much so that, starting in the 19th century, new rural buildings were constructed to house the peasant landowners of the estates and for their farming and livestock activities. These buildings, built continuously until very recent times, were developed directly on the remains of the ancient Roman structures, particularly the walls of the city and the theatre, but also of other less monumental buildings, recovering and reusing the immense quantity of building material present on the site, especially the stonework. The ancient city thus resurfaced in the new buildings, in which large inscriptions, reliefs, blocks of squared stone, column drums, decorated entablatures, etc., were incorporated, so much so that it has been appropriately said of Altilia that it is the place of archaeology in the continuity of time, precisely with reference to this rare coexistence of ancient and modern, as well as to the admirable fusion of monument and landscape context, all factors that make the site of extraordinary interest in its uniqueness.

## 2.4 SYSTEM OF FRUITION

2.4.1 Opening of the area (free; closed with a fence, but always accessible; opening hours; only guided tours).

Saepinum Archaeological Park, which includes not only archaeological remains but also exhibition spaces, is open due to the impossibility of closing its access points at



the present time.

The public opening service is guaranteed every day, from Monday to Sunday, from 8:15 am to 7:15 pm. Extraordinary evening openings, of 3 or 4 hours, are planned for national events promoted by the Ministry of Culture (European Night of Museums, European Days of Archaeology, European Heritage Days) or cultural events promoted by the Park, usually included in the Enhancement Plan.

The Park does not have an internal guided tour service; for the organization of tours, visitors are always recommended to contact qualified professionals who have the necessary requirements.

#### 2.4.2 Access of the visitors to the entrance (pathway, cycling way, by car, parking place - capacity, public transport, access for disabled persons, etc.).

Accessibility to the Park is currently quite problematic.

The easiest way to reach the archaeological area is by car, as the Park is not well served by public transportation, either by road or rail.

There are currently two main car parks, located at two of the main entrances (Porta Tamaro and Porta Terravecchia). These areas, however, are not owned by the Park and are not equipped as proper car parks, with appropriate horizontal and vertical signage and reserved spaces, for example, for people with disabilities and pregnant women.

In addition, there are sheep tracks used for trekking and cycle paths in the area of interest, but these should be integrated into an organic and interconnected system. A systematic study has been underway since 2023 to identify a series of solutions that can lead to the structuring of a set of integrated actions to improve the external accessibility of the Park.

Finally, as regards access to the area for people with disabilities, the Park is the beneficiary of at least two interventions financed with PNRR funds which will provide for actions to eliminate architectural and cognitive-sensory barriers, for which the relative designs are in the process of being awarded.

#### 2.4.3 Moving through the area (walking, cycling, possibilities for disabled persons, etc.).

The Park area is accessible on foot internally. There are some critical points, as the paving of the ancient structures is uneven in some places, with a risk of tripping and falling.

The existing cycle paths are outside the area.



As regards the accessibility of people with disabilities, as already highlighted in the previous point 2.4.2, with the PNRR interventions, improvement actions will be carried out aimed at eliminating architectural and cognitive-sensory barriers.

2.4.4 Information for visitors on site (e.g. information centre, information panels, reconstructions, ICT and digital tools, tourist info point etc.).

Within the area, at the two ticket offices, the staff provides a first welcome to visitors, giving them directions on how to get around the area and information on the places of historical and archaeological interest.

Some orientation panels have recently been installed, with a map and indication of the points of interest (ticket office, offices, Museum, toilets), positioned at the four main gates and the central part of the archaeological area.

A new brochure has also been designed and created, together with the Park's logo and brand image, containing a brief account of the cultural heritage it preserves, a map with the indication of the places of historical and archaeological interest and a QR code that links to the digital tour accessible from the Park's website. For each place on the map, a dedicated page has been created with a significant picture, an explanatory text and an audio contribution, in Italian and English.

2.4.5 Online outreach. Do you have your own website? Provide analytics. Do you have official social media pages (X, Facebook, Instagram, Twitter, YouTube, TikTok)? Provide analytics. Is your site featured in regional, local and national touristic websites? Provide analytics.

The Park's official website has been online since 2023 and features pages dedicated to basic information (organization, contacts, opening hours, tickets), the story of the cultural heritage and transparent administration.

Only in recent weeks, however, have social media channels (Facebook, Instagram, YouTube) been opened.

The Park's online tools are relatively new and an internal structure dedicated exclusively to communication and promotion aspects is being created; the possibility of extracting and analyzing statistical data, therefore, has not yet been implemented and will certainly be developed in the near future.

2.4.6 Museum and/or exhibition place.

The rich architectural heritage of the archaeological Park represents the ideal space



to welcome, exhibit and narrate the material and immaterial history of the town and its territory. The farm houses and rural domestic spaces have been transformed into exhibition rooms of the open-air museum of the Park, maintaining the characteristic elements of peasant homes, such as the sink, the fireplace, the oven and the niches. The buildings built on the cavea of the theatre since the 18th century now house the Museum of the town and territory of Sepino, where artefacts covering a broad chronological arc, ranging from early Prehistory to the Middle Ages are exhibited. Part of the Roman town's stonecutting heritage is on display in the Lapidarium, including inscriptions, steles and funerary statues. Other evocative spaces in which archaeology meets peasant life, used for temporary and thematic exhibitions, are the Long House, the House of the Kitchens and the House of the Columns. In the coming years, further exhibition spaces will be created within the farm buildings, which will be used to tell the story of the daily life of Samnite and Roman Saepinum and of the many subsequent lives: from late Antique and early Medieval periods, to the peasant community that inhabited these places from the 1600s up to the rediscovery of the city which began in the 19th century, was resumed in the 1950s and still continues today.

2.4.7 Public facilities (e.g. toilets, bar/restaurant, thematic/non-thematic children playground, place for special events, etc.).

There are toilets in the archaeological area, which are also accessible to people with disabilities.

There are no restaurants, cafes, bookshops or play areas for children.

The cultural events included in the Park's program have so far been hosted in the evocative setting of the Roman theatre of ancient Saepinum, which can hold up to a maximum of 200 spectators.

2.4.8 Pricing policies:

Here is a description of the different types of tickets:

- a) free admission: in all cases provided for by ministerial decree;
- b) regular ticket: €10;
- c) reduced ticket: €2, for citizens of the European Union between the ages of 18 and 25. The same concessions apply to citizens of non-EU countries, on condition of reciprocity;
- d) fidelity card: €20, valid for one year, free entry on normal visits. This is a tool designed primarily for local communities to encourage visits to the Park and



provide them with a further concession;

e) combined ticket: €12 Parco archeologico di Sepino + Museo Sannitico di Campobasso.

Currently, there are no guided tours, immersive experiences, or additional services (cafeteria, bookshop).

#### 2.4.9 Presence of infrastructures for physical and cognitive accessibility.

As regards the accessibility of people with disabilities, as already highlighted in the previous point 2.4.2, with the PNRR interventions, improvement actions will be carried out aimed at eliminating architectural and cognitive-sensory barriers.

#### 2.4.10 Presence of other structures potentially to be used for the visit.

Currently, there are no additional structures beyond those already described in the body of the report.

#### 2.4.11 Identification of ICT and digital solutions FOR ARCHEODIGIT

*For each topic pay attention to the following immersion levels:*

- *High immersion;*
- *Medium immersion;*
- *Low immersion.*

The new archaeological park is not currently equipped with digital tools capable of offering a highly or medium immersive visit. However, via the park's website (<https://www.parcosepino.it>), an interactive map is available that allows a short digital tour. The digital tour of the park offers visitors the opportunity to learn about and learn more about the points of interest of the archaeological area through a journey made up of images, texts and audio. From home it is possible to preview the most interesting places in the area and learn about its history. In the Park it is possible to build a personalized itinerary and listen to audio guides, walking between history and nature.

##### 2.4.11.1 Describe the ICT technologies/digital tools already used in the archaeological site with the aim:

- *to improve/enlarge presentation/interpretation of the archaeological heritage, to enhance the territorial/cultural identity, to promote the protection of archaeological*



*heritage;*

As part of the project called FORMA SAEPINI, the park is developing an integrated set of actions aimed at protecting and enhancing cultural heritage. Specifically, an integrated survey campaign was carried out (Topographic, Terrestrial Photogrammetric, Aerial Photogrammetric and Laser Scanner Surveys) which allowed the three-dimensional modelling of the archaeological park.

Specifically, the integrated high-resolution survey of the archaeological objects and the following software processing phases (structure-from-motion, dense point cloud generation, mesh reconstruction, texture mapping, optimization and reduction of the number of polygons) led to a metrically correct and chromatically precise 3D digital modelling of archaeological finds. In particular, from the terrestrial laser scanner survey it is possible to extract, in the form of point clouds, the individual architectural elements present on the site, such as drums or column bases. The individual extracted elements were modelled (mesh) and integrated with the terrestrial photogrammetric survey, to also have very high-definition detailed colorimetric information. The DSM (Digital Surface Model) and the DTM (Digital Terrain Model) of the park territory were released as secondary products.

- *to enlarge audiences (also from target audiences usually not used to cultural tourism experiences);*

The park, through the FORMA SAEPINI project, has undertaken the development of a specific digital project based on gamification, i.e. the application of game design elements for the enhancement of cultural heritage. The aim is to tell and promote local cultural heritage through the appeal of video games, developing a graphic adventure set in the territory of the Archaeological Park capable of emotionally involving the player in a virtual universe full of specific references to places and stories of the site. The game will feature multiple preference emotional dialogues that will give the player the ability to make their own choices.

- *to better analyse features and needs of archaeological area' visitors:*

There are no ongoing projects in this area.

- *to define needed competences of operators demonstrating use of ICT/digital tools:*

There are no ongoing projects in this area.



*For each listed tool please provide the following information:*

- *Is it designed for remote use, or is it site specific? Or both?*

The digital tour can be used in both modes.

- *Which devices can it be accessed from? PC / mobile / touchscreen / VR gear / other (specify)/ more than one:*

PC / mobile

- *Can it be implemented? How? i.e. does it have a CMS or other systems allowing curators or designated officials to implement new content?*

An IT technician oversaw the implementation of the tool based on the contents provided by the park staff.

- *Where is it hosted (cloud / Physical server)?*

Cloud.

- *And by whom (the public body managing the site or the company providing the service)?*

The archaeological park registered its domain and purchased the hosting space from providers on the market (MEPA).

- *Fruition effort (mostly relevant for site specific exhibits): how often is it available to the public? Does it require the presence of dedicated personnel to be used?*

The presence of dedicated staff is not required to use the digital tour. In any case, the park reception staff will explain to visitors how to use the tour via QR code present on the park brochure.

- *Maintenance: is there an active maintenance contract? For how long? How often does it need maintenance work?*

A specific maintenance contract is not active.



2.4.11.2 List the public/private authorities and bodies involved in ICT/digital activities and briefly explain their respective role, competencies and tasks.

The Molise Region is involved in the development of digital activities, as public financier of the FORMA SAEPINI project.

2.4.11.3 List the target groups (cfr. 3.2 and 3.7) and stakeholders to which ICT/digital activities are targeted and explain why they are the ones addressed. Also describe the methods and strategies used in the framework of ICT/digital activities and types of activities implemented for each target group. Finally describe the tools and instruments used in ICT/digital activities.

#### Target Groups and Stakeholders

The Public: Engaging the public fosters appreciation for archaeological heritage.  
Researchers and Students: ICT facilitates remote access to archaeological data, fostering collaboration and knowledge exchange within the academic community.

Government Agencies: Cultural authorities at national, regional (Molise), and local levels play a crucial role in managing and protecting archaeological sites. ICT can enhance data sharing, site monitoring, and regulatory processes.

#### Methods and Strategies

Digital recording systems for archaeological data, Geographic Information Systems (GIS) for spatial analysis and databases for storing and managing archaeological information. Remote and proximal sensing techniques, drone surveys and lidar measurements for monitoring of archaeological sites. These resources facilitate remote access to information, enabling collaboration among researchers and students regardless of location. Furthermore, these resources improve long-term preservation. Interactive website (digital tour) for disseminating information about archaeological site. The tool makes archaeological knowledge accessible and engaging for a broader audience, promoting cultural tourism and fostering a sense of ownership among the public.

#### ICT Tools and Instruments

Hardware: Tablets, laptops, drones, sensors.

Software: Data recording and management software, GIS software, 3D modeling sw.

Online Platforms: website of the archaeological park.



2.4.11.4 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints and threats) concerning ICT (SWOT analysis).

### **STRENGTHS**

By employing these methods and tools, ICT/digital activities can significantly enhance archaeological site planning and management.

### **OPPORTUNITIES**

ICT tools like digital tour and 3D modeling can enhance visitor experience, education, and research capabilities.

### **WEAKNESSES**

Lack of Awareness: The public may not be fully aware of the significance of archaeological sites, hindering appreciation and support.

### **THREATS**

Excessive production of similar tools and difficulty for the public in recognizing scientifically coherent products.

2.4.12 Are there staff training projects on the use of ICT?

No.

## **2.5 ECONOMIC CONTEXT**

2.5.1 Catchment area of the possible users/visitors (e.g. the proximity to urban centres or tourist locations).

Sepino is located 20 km from the city of Campobasso, the capital of the Molise region, a city with low tourist numbers. It is also located 100 km from the Adriatic coast (Termoli), 100 km from Naples and 220 km from Rome.

2.5.2 Describe your on-site public. Provide any available information on the segmentation of your visitors. How many of them are local? How many come from a different region or country? How old are they? Are they frequent consumers of cultural products (books, theatres, exhibitions, museums, etc.)? What's their degree of education?



The Sepino Archaeological Park is not currently in possession of such information.

### 2.5.3 Area of potential interest for the economic consequences of the Park management activity (regional level).

The area of potential interest for the economic impacts deriving from the Park management activities is certainly the entire regional territory, with a likely extension to the neighboring areas of Campania, interested in the presence of the Matese massif, and the Lazio and Abruzzo districts falling within the territory of the National Park.

### 2.5.4 Accessibility by roads (primary, secondary), public transport, airport.

The site can be reached:

- from Campobasso, 23.2 km far, with the SS 17 and the SS 87;
- from Isernia, 41.4 km far, with the SS 17 and the SS 87;
- from Benevento, 42.3 km far, with the SS 87 and the SS 372.

The A1 highway is accessible from San Vittore toll booth, towards Rome, and Caianello, towards Naples. The A14 highway is accessible from the Vasto-San Salvo and Termoli toll booths. The A16 highway is accessible via the Benevento highway junction 9 (RA 9). The site is:

- 138 km from Naples.
- 220 km from Rome.
- 180 km from Pescara
- 99 km from Foggia.

The site is not directly served by the railway network; the reference stations are those of Campobasso, on the Termoli – Campobasso line, of Boiano, on the Isernia – Campobasso line, of Carpinone, on the Sulmona – Carpinone line, and of Benevento, on the Naples – Foggia line. The reference airports are the "Leonardo da Vinci" of Rome/Fiumicino, the "Capodichino" of Naples and the "Pasquale Liberi" of Pescara. Local public road transport includes the CB030 regional line with the route: SEPINO S. GIULIANO DEL SANNIO CERCEPICCOLA CAMPOBASSO

### 2.5.5 The system of museums, monuments of cultural interest etc., in the regional level.

The system of cultural sites entrusted to the Ministry of Culture for the Molise Region is quite rich and complex. As many as five archaeological museums safeguard and



narrate the very long history of these territories, from the exceptional testimonies of the National Museum of Paleolithic in Isernia to the significant Roman-era artifacts of the Archaeological Museum of Venafro, passing through the rich documentation of the Samnite phase characterizing the collections of the Samnite Museum of Campobasso, the Museum of the City and Territory of Sepino and the Archaeological Museum of Santa Maria delle Monache in Isernia, whose recent re-installation has exposed - among others - significant finds from Pietrabbondante, an archaeological area of great suggestion and crucial importance for understanding the social dynamics and religiosity of the Samnites. The Middle Ages are well represented by the castles of Venafro, Gambatesa and Civitacampomarano, medieval fortresses transformed into noble palaces, with authentic treasures of fresco painting inside them, and by the monumental complex of San Vincenzo al Volturno, a Benedictine abbey meeting point between cultures and a true center for the elaboration and construction of a European identity in the true sense of the term. Finally, the 18th-century Palazzo Pistilli in Campobasso offers a taste of the evolution of painting, between the 16th and 20th centuries, with the Praitano and Eliseo collections.

#### 2.5.6 The system of tourist facilities (hotels, bed & breakfast, restaurants, etc.).

Out of a total of 508 facilities in Molise, approximately 80% are non-hotel establishments and 20% are hotel establishments. Similar percentages are found when analyzing data at the provincial level. In the province of Campobasso, non-hotel establishments account for 79% of the accommodation offer, compared to 21% for hotels. In the province of Isernia, the percentage of non-hotel establishments rises to 81%, compared to 19% for hotels.

#### 2.5.7 Sustainable touristic ecosystem FOR ARCHEODIGIT

2.5.7.1 Describe the local/regional heritage policy/priorities, with regards to touristic development and activities, formulated or implemented in the protected archaeological area concerned, incl. any interrelation with other policies when related (sustainable development, protection of archaeological sites, tourism development, employment policy, etc.).

#### Strategic Guidelines for the Development of Tourism in the Molise Region

##### Primary goals

- to innovate, specialize, and integrate the regional tourism offer;
- to enhance the competitiveness of the regional tourism system;
- to develop effective and innovative marketing strategies;



- to establish efficient and participatory governance in the process of developing and defining the regional strategic tourism plan and tourism policies;

#### Complementary goals

- to provide a systematic framework of reference, strategic and informative, for the development of the tourism sector;
- to highlight the vocation, perceived image, and current and potential positioning of the Molise destination;
- to identify training needs and skills gaps in the sector;
- to implement a series of interventions in the tourism sector and complementary sectors, in line with European, national, and regional programming documents, which will increase competitiveness and the level of innovation;
- to implement communication activities that strategically and operationally support the relaunch of the sector and in line with the identified targets;
- to promote a collaborative approach among the various stakeholders involved, in order to effectively integrate the different production areas and current and potential tourism services;
- to ensure unitary governance and effective monitoring of initiatives.

2.5.7.2 Describe the existing initiatives/methods/actions/projects currently/already implemented in your archaeological site aimed at valorizing and promoting heritage as well as to strengthen touristic ecosystem (capturing the uniqueness of the cultural site and methods that defines the cultural identity of the location, combining tangible and intangible heritage).

Among the ongoing activities, one that deserves special mention is FORMA SAEPINI, already quoted inside the previous section. The project encompasses several areas of interest, which are summarized below:

- integrated survey campaign:
  - objectives:
    - a) to establish a local geodetic network;
    - b) to provide an analytical framework on the location and consistency of each artifact located in the area;
    - c) to provide an updated graphic view of the Park;
    - d) to model the monumental structures, both metrically and chromatically correct
- geophysical surveys:
  - technologies:
    - a) differential magnetometric survey: measuring the gradient values of the



Earth's magnetic field;

b) continuous profile georadar survey: using multi-channel instrumentation based on the reflection of electromagnetic waves at different frequencies (typically in the 200-600 MHz range);

- archaeological excavation:

objective: to excavate a portion of the sector located near the baths against the city walls, both to make this space usable, adding this sector to the already established visitor areas (forum basilica, Porta Bojano, theatre, etc.), and to increase knowledge of an urban area that was only partially investigated in the past, verifying, at the same time, the hypotheses and interpretations derived from previous research campaigns;

- digital accessibility:

objective: to develop a specific digital accessibility project based on gamification, or the application of game design elements to contexts related to the enhancement of cultural heritage;

- production of gadgets:

objective: to produce gadgets, personalized with the printing of the logo and name of the entity, aimed at promoting the brand image of the Park.

2.5.7.3 Describe any new/innovative/potential initiative/activity that could have concrete possibilities to be introduced in your archaeological site to strengthen touristic ecosystem. Also indicate the main conditions and requirements for the concrete realisation of such new initiative(s), e.g. touristic resources, etc.

It would be premature at this stage to attempt to develop any further thoughts on this point. It seems preferable to wait for the developments of the project mentioned in the previous point 2.5.7.2, as well as the results of the comparison and constructive interaction with the other project partners.

2.5.7.4 List the target groups and stakeholders that should be involved in the framework of new policies and approaches for sustainable tourism activities and products in connection with archaeological site. Also explain why they are the ones to be involved.

The following is a list of some of the potential project stakeholders, divided by sector. The selection involved all subjects involved in the main cultural processes underway within the reference regional territory, for some activities already in direct relation



with the Park:

- a) Ministry of Culture;
- b) Ministry of Tourism;
- c) Tourism and Cultural Department Molise Region;
- d) University of Molise;
- e) Fondazione Molise Cultura;
- f) GAL Molise Verso il 2000;
- g) Just' Mo – cultural and creative enterprise.

2.5.7.5 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) of archaeological area in relation to sustainable tourism activities and products (SWOT analysis).

SWOT Analysis for the Development of Tourism in the Molise Region

### **STRENGTHS**

- Untouched natural and environmental heritage
- Low crime rates
- Significant and widespread cultural heritage
- Genuine hospitality
- Strong foundations for transforming hospitality into a distinctive characteristic
- Availability of disused real estate
- Quality of food and wine products
- Artisan tradition
- Ease of understanding economic and social phenomena
- Good responsiveness of the economic and social fabric to participatory stimuli
- Capillarity of the local associative network

### **WEAKNESSES**

- Low tourist flows and high seasonality
- Weak image
- Age distribution of the population
- Lack of product differentiation
- Low propensity for entrepreneurship and innovation
- Low culture of collaboration among regional operators and adherence to external networks
- Lack of coordination of intra-regional transport services
- Lack of coordination of communication policies



- Low awareness of their own identity on the part of operators and residents
- Low level of usability of tourist resources
- Insufficient quantity and quality of professional services to support the tourism sector
- Weak and non-integrated basic hospitality services
- High water dispersion and low quality of the water supply service in some municipalities
- Insufficient level of accommodation facilities in terms of quality and professionalism of services provided
- Low level of maintenance of road infrastructure
- Shortages in social and health services
- Poor provision of transport infrastructure other than roads
- Digital divide
- Fragmented collection and management of tourism data
- Non-organic and incomplete regulatory framework

### **THREATS**

- Progressive demographic decline
- Strong competition from neighboring tourist regions
- High rate of emigration of young and qualified human resources
- Exogenous decline in tourism demand
- Seismic events

### **OPPORTUNITIES**

- New and growing segments of demand
- Proximity to potential tourist catchment areas
- Possible access to financial resources
- Network of Molise people abroad
- Presence of tourist areas with high perceived development potential
- Expansion of the culture of collaboration among regional operators and adherence to external networks
- Existence of conditions to intercept new segments of demand (sustainable, accessible, experiential, fandom tourism, etc.).

2.5.8 Are there staff training projects linked to economic and tourism development?

There are no ongoing projects of this nature at the present moment



### 3. MANAGEMENT PLANS

#### 3.1 Is there an "archaeological project" that underlines the reasons underlying the creation of the Site?

There is not.

#### 3.2 Make a general presentation of the organisational structure regarding planning and management of archaeological site. Also list and briefly describe the different bodies involved in the planning and management, including their role, competencies and tasks. Briefly also describe the relationship with the national level. Pay attention to the following professional figures:

- A. Management;
- B. Promotion and communication;
- C. Architecture and construction;
- D. Hosting and catering services.

Currently, the Sepino Archaeological Park has an undersized organizational structure compared to the staffing plan (only 30% of the staffing plant). Specifically, there are 3 administrative area officers, 1 administrative assistant, 2 computer assistants and 19 reception and supervision assistants. In addition to these tenured staff, there are 5 technical support resources (archaeologist, architect, legal, accountant, tender and procurement expert) and 4 external collaborators (archaeologist, architect, engineer, social media manager).

- A. Management activities are managed by the Director, his officers and support staff, and consist of management activities, human and financial resources, and planning of protection and enhancement projects.
- B. Promotion and communication activities are coordinated by an administrative officer and a social media manager, with whom some of the reception and supervision staff collaborate.
- C. Sepino's archaeological and architectural heritage is currently the subject of feasibility studies and maintenance, restoration and enhancement projects. Studies and projects that will make it possible to improve the state of conservation of the archaeological remains and historic buildings, identifying new uses for them.
- D. The Park has a guesthouse equipped with a kitchen and 14 beds with services, to be used for scholars or researchers. Part of the historic buildings in the Park will be earmarked for further hospitality projects.



**3.3a Do you have a Management Plan for your archaeological site? In such case describe the Management Plan (priorities, vision, management objectives, expected results, existing and potential opportunities and problems).**

The Management Plan is under construction and not yet fully implemented. The Plan will aim to identify the strategies that need to be implemented for the protection, preservation and enhancement of Sepino's tangible and intangible heritage in order to make it usable for current and future generations, to promote cultural and economic-social development.

**3.3b In case there is no Management Plan, are management objectives/priorities/activities set out in any other specific document (e.g. policy document). If yes describe them.**

Objectives/priorities/activities of the Management Plan are provided for within the Park Statute. They can be summarized as:

- a) Knowledge: systematization of existing knowledge (territorial context, analysis of tangible and intangible cultural heritage, analysis of risks and constraints, etc.);
- b) Strategic lines: objectives, analysis of strengths and weaknesses, cultural development model, vertical and horizontal coherence of the planned conservation and enhancement strategies, etc.);
- c) Planning: program of interventions according to financial needs and availability, organized according to projects and activities.

**3.3c If there is no Management Plan, what do you think are the main objectives of the current activity?**

**X Preserving systems with a specific archaeological interest**

**X Promoting scientific research**

**X Promoting public fruition and public service through access policies and raising awareness of the value of Cultural Heritage**

**X Promoting enhancement and educational-recreational activities with the use of ICT tools**

o Planning and structuring of governance models

**X Modelling a sustainable economic development**



**3.4 Level and extension of cooperation/coordination among local actors both in the setting up of the Management Plan/policy and in the management. Who are involved, how and to what degree (process/type/method of involvement, activities).**

At this moment there are no active projects of cooperation/coordination among local actors both in the setting up of the Management Plan/policy and in the management.

**3.5 Level and extension of involvement of the public in the setting up the Management Plan/policy and in the management of sensitive and protected areas (who, how and to what degree is the public involved). Describe the participatory framework (process of involvement, activities).**

At this moment there are no active projects of involvement of the public in the setting up the Management Plan/policy and in the management of sensitive and protected areas

**3.6 A GIS is normally used for management activities. If so, how?**

In daily operations, the open-source QGIS platform was used to map, for example, excavation activities, property maintenance actions, and the positioning of existing utilities.

**3.7 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) in relation to coordination and coordinated management policies and plans (SWOT analysis).**

**3.8 How do you evaluate the economic and financial sustainability of the site.**

**3.9 Methods and strategies are applied to monitor economic impact results and evaluate and review them**

**For the methodology and for more detailed information see: <https://eum.unimc.it/it/catalogo/808-common-sustainable-governance-model-for-archaeological-parks>**

Regarding points 3.7, 3.8, and 3.9, the recent establishment of the Park does not allow at present to provide specific answers.



## **4. CONCLUSION**

Having taken into account all the above STRUCTURING FACTORS, summarize the major problems, constraints and threats affecting your archaeological site as well as challenges and opportunities, analyzing the following aspects:

### **4.1 Characterizing factors**

Describe the components and relationships that characterize the system of your archaeological site, giving it an identity that distinguishes it from others.

The uniqueness of Sepino lies primarily in the excellent state of preservation of the archaeological and monumental evidence present within the area. The layout of the Augustan and imperial city, enclosed within the 12 hectares of the city walls, is remarkably legible, providing us with knowledge of all the main components of the urban structure, from the residential, public and religious points of view.

### **4.2 Qualifying factors**

Describe the elements or conditions that can give your archaeological site a certain quality, importance or value today without changing its structure or characteristics.

Among the elements that characterize the Archaeological Park is certainly the integration with the landscape, which unfolds with the harmonious fusion of monumental evidence from the past, modern construction, and flourishing and uncontaminated nature.

### **4.3 Critical situations**

Describe the more or less acute set of elements or conditions of degradation or de-qualification or alteration of your archaeological site.

The most critical situations the newly established Park must face are the lack of a dedicated road access, parking areas, and intermodal and sustainable mobility options. Dealing with the accessibility of the area, the two interventions financed with PNRR funds which will provide for actions to eliminate architectural and cognitive-sensory barriers.



#### **4.4 Challenges and opportunities**

The main challenge for the Park, especially at the local level, is to assume the role of a true gateway to the system of cultural sites present in Molise, overturning a paradigm that sees inland areas in a marginal position compared to not only the major established tourist attractions, but also coastal centers, which often prove to be more attractive and easier to reach.



## UNDERWATER ARCHAEOLOGICAL SITE TRSTENIK (CROATIA)

### STRUCTURING FACTORS

#### 1. PRESENTATION OF THE ARCHAEOLOGICAL SITE

##### 1.1 Relevant legislations in force at national/regional/local level regarding management/preservation/ valorisation of archaeological sites.

Croatia is a signatory of the UNESCO Convention on the Protection of the Underwater Cultural Heritage from 2001, representing the first multilateral international treaty that systematically and comprehensively addresses the protection of underwater cultural heritage. Signatories of this convention are obliged to cooperation with other signatory states, in order to strengthen the protection and preservation of underwater cultural heritage.

Underwater archaeological research with the goal of achieving further scientific knowledge and similar is practiced by specialized public administration bodies and specialized private companies with prior permit obtainment issued by the relevant conservatory department of The Ministry of Culture and Media. The permit for work on underwater cultural heritage is issued separately for each site at request of the research leader, when all conditions, prescribed by the Act on the Protection and Preservation of Cultural Goods (Official Gazette 69/99, 151/03, 157/03, 100/04, 87/09, 88/10, 61/11, 25/12, 136/12, 157/13, 152/14, 98/15, 44/17, 90/18, 32/20, 62/20, 117/21, 114/22) effective from the 1st of January 2023 are met and also accordingly to Regulations on the Archaeological Research (Official Gazette 102/10, 01/20).

The Ministry of Defence of the Republic of Croatia is a co-signatory of the permit for work on the underwater cultural heritage. In the area of Split-Dalmatia County, with the legal status of protection, the total of 58 underwater archaeological sites are covered (53 are registered, 5 are protected preventively). Trstenik area in Kaštel Sućurac is classified as an underwater archaeological zone/site and is listed on The List of Cultural Goods, under the number Z-732. The site is also protected in the Spatial Plan of the City of Kaštela.

##### 1.2 General presentation of the archaeological site.

Trstenik area in Kaštel Sućurac, has been known as an archaeological site since the beginning of the 20th century, when the pediment of a small temple dedicated to



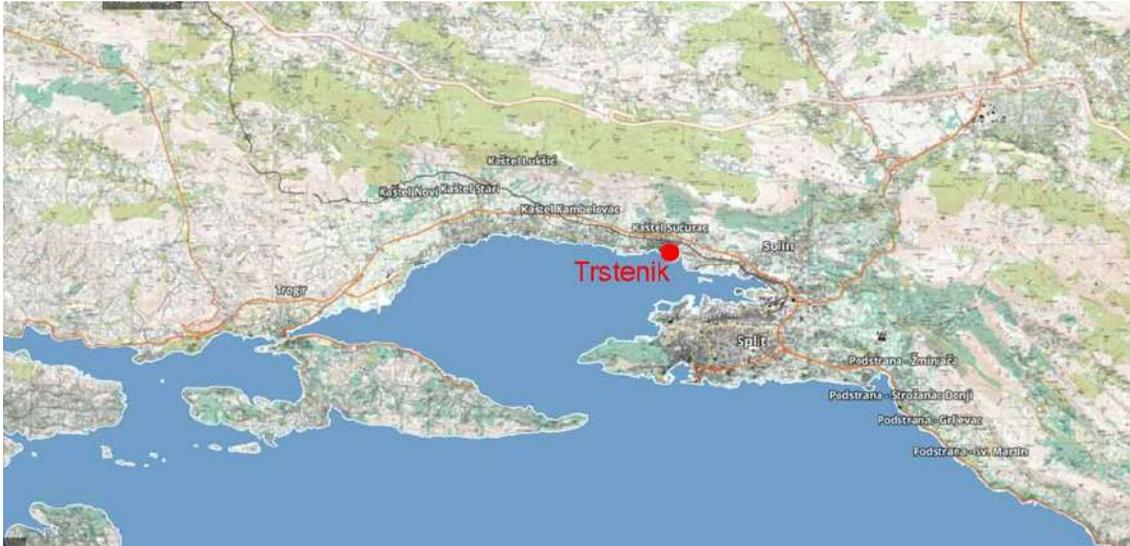
Silvanus was found. This temple was built by Lucius Pomponius Rest, and the pediment is preserved in the Archaeological Museum in Split, where it's exhibited in the lapidarium.

Numerous finds from the Roman period have been discovered during the construction of houses, for example, in 1925, a burial urn and human bones were found. Dragan Delić managed to collect part of the material found during the construction of family houses and bring it to the Archbishop's Castle in Kaštel Sućurac. The Museum of the Town of Kaštela has conducted terrestrial research on several occasions. A part of a necropolis and architectural remains were found and explored. Find of a lead pipe is interesting as it points out to the existence of water supply installations, i.e. high level of communal equipment. Based on the research and data from the previous finds, the entire site extends on the surface of approximately 4 hectares ranking it among the larger ones in the Salona ager.

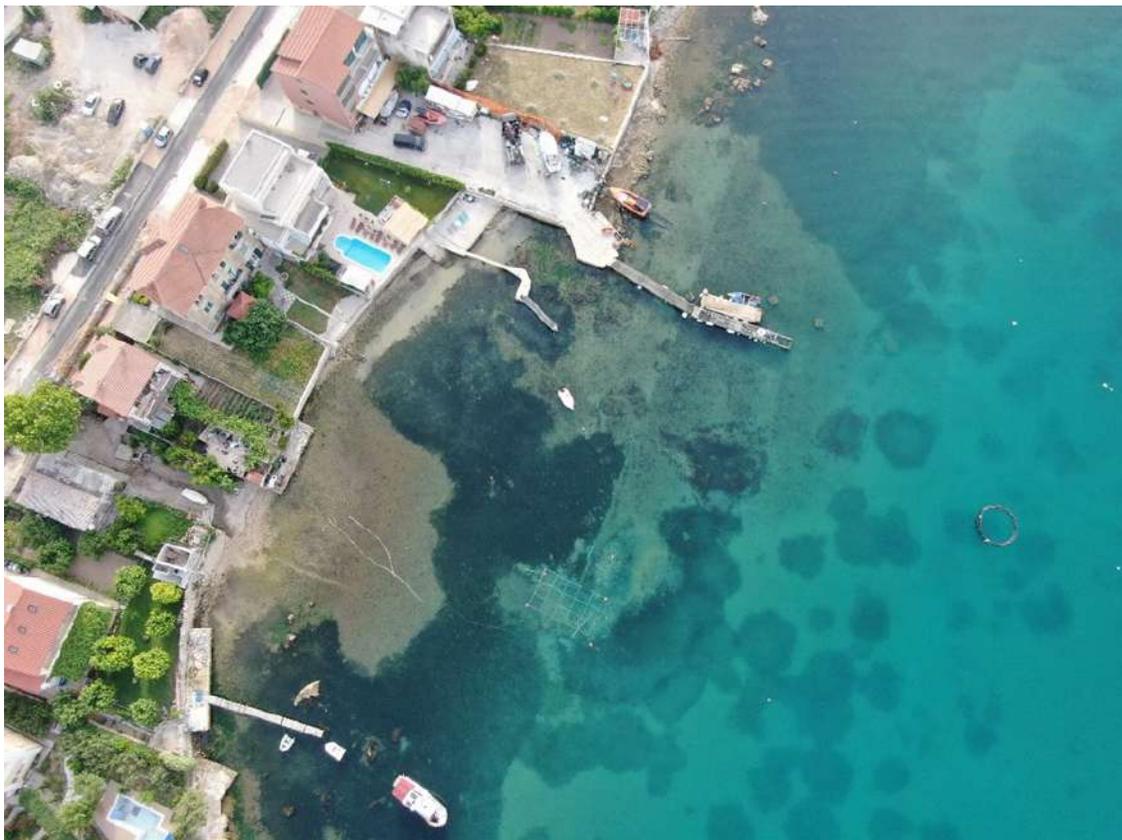
Roman road Salona – Tragurium passes through the site, it's used even today and known as the Roman path. The cardo line of the Salona ager intersects the site in the eastern part. Direction of this cardo have been preserved in the parts of Zrinsko-Frankopanska street and Suvača street, further to the north. Underwater part of the site is much more known to the public, primarily due to discovery of a series of very interesting archaeological finds. Large perforated dolium, excavated in 2003, is stored in the Croatian Maritime Museum in Split. In addition to dolium, numerous Hispanic amphorae for olive oil - Dressell 20 type and remains of three wooden Roman ships are still on the site. On aerial view footage, remains of the entire submerged ancient pier are still visible. All collected data about this site indicate that it was probably an economic-residential complex of villa rustica type, with developed trading port in the immediate vicinity to Salona.



1.2.1. Location of the site on the modern map (modern settlements, roads in the distance of 30-60 km).



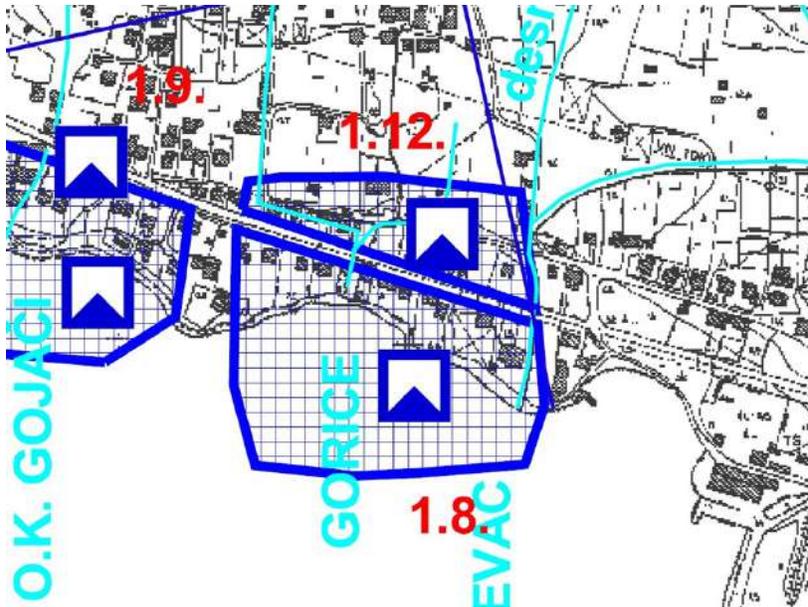
1.2.2. View of the site.





### 1.2.3 Size of the area (in ha).

Surface of the land area is approximately 4 hectares and the surface of the underwater area is approximately 3 hectares.



*The protected zone of Trstenik archaeological site in Kaštel Sućurac*



## 2. ELABORATION OF DOCUMENTS AND KNOWLEDGE FRAMEWORKS

### 2.1 ARCHAEOLOGICAL SYSTEM

2.1.1 Map/plan of the archaeological area with the historical structures and modern infrastructure.

The land part of the site is mostly not visible, due to the fact that it's partially an urbanized area. Except for the roads, Trstenik creek bed and the coastal area which is maritime property, the entire area of the archaeological site is privately owned. In the underwater, faint remains of the pier construction are visible. The edges of the pier structure are made of wooden planks and pylons, and from the external side of the structure, there are deliberately sunken constructions of three wooden ships.

Filling of the pier is made of amorphous rocks, and in one part, the filling made of amphorae was found. In addition to amphorae, in the underwater there are several massive ceramic containers - dolia.

One dolium was extracted about 20 years ago and is currently exhibited in the Croatian Maritime Museum in Split.

2.1.2 List of visible historical monuments.

Considering the specific underwater conditions, which are not favourable for the preservation of organic material, „in situ “presentation of the remains of wooden pier and ships is not possible. The shallow underwater area and wave dynamics would destroy organic material in a short period of time; therefore, the possibility of physical sightseeing is impossible.

Previously mentioned amphorae filling of the pier, has been protected by a metal cage twenty years ago, but due to the passage of time a significant amount of seaweed and algae was formed, aggravating the visit additionally.

2.1.3 Short descriptions of each monument or group of monuments.

The remains of the wooden pier cover the surface of approximately 2,500 m<sup>2</sup>. On aerial view footage, two directions that intersect at a right angle are noticed. The longer direction is parallel with the coast and can be traced in the length of approximately 70 meters, and the other direction, perpendicular to the coast, is about 40 meters long.

The ship Trstenik 1 was discovered in 2006. during definition of the western end of linear structure by which the operational coast was bounded, at the depth of approximately 1,6 meters. It's about 12 meters long.



According to the obtained results of radiocarbon analyses, the ship was probably built at the beginning of the 1st century AD, and its sinking could have occurred around the middle of the same century. Flat bottom and dense ribbing indicate that it was a cargo ship, designed for transport of heavy cargo and manoeuvring in the shallow coastal area of the Kaštela Bay.

The ship Trstenik 2 is significantly smaller ship, with the length of approximately 6 meters and the width of approximately 2 meters. Just like the ship Trstenik 1, this ship has also been deliberately sunken and filled with rocks along the operational coast. It's an extremely interesting Horeia-type vessel, with flat bow and pointed stern. Considering the dimensions and the shape of this ship, the usage was local, probably as a service ship in the port itself and in the nearby surroundings.

The ship Trstenik 3 is the last discovered ship on the site. It is positioned approximately in the east-west direction, along the former operational coast, eastward from the ship Trstenik 1. The edges of the wooden ship remains are fully defined and the total length is approximately 9 meters. The frames are better preserved in the northern part, next to the wooden construction of the operational coast.

Structure with Hispanic amphorae is located eastern from the ship Trstenik 3.

They were found in the first research campaigns and the significant number of samples has been entirely preserved. Dating back to 1st – 2nd century AD, their usage was olive oil transportation.

Due to the fact that they were quite inconvenient for land transportation, they were probably discarded after pouring the oil in the more suitable packaging. Considering their volume, they were used subsequently for embankment of the operational coast, along with the wooden pylons.

In addition to the above-mentioned finds, it's also necessary to mention the find of a large ceramic container – dolium. This dolium was found in the underwater of the site, but in 2003, it was excavated and stored in the Croatian Maritime Museum in Split. This large ceramic container was perforated and it was probably used for the conservation of live fish. According to the fragments that were found in the research in the immediate vicinity, the existence of several more examples can be expected.



## 2.1.4 Images of the most important monuments

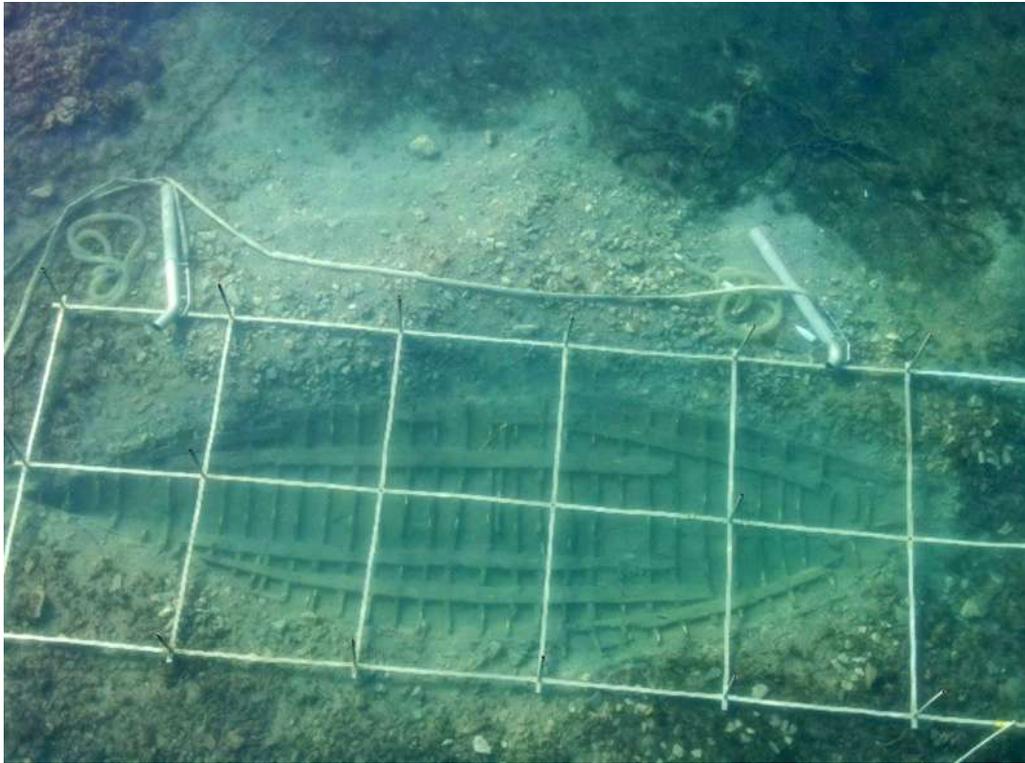


The ship Trstenik 1



The ship Trstenik 2





The ship Trstenik 3



Hispanic amphorae



### 2.1.5 Present condition of the monuments (visibility, quality, maintenance).

All three discovered ships are in a good condition, but due to the fact that their exposure on the site would result with their destruction within the short period of time, they were covered with geotextile, sandbags and rocks after the research. The contours of the ship can be glimpsed while diving, but only after the excavation and conservation, their presentation could be complete and of quality.

The situation with Hispanic amphorae is partially satisfying because they are covered with grid cage.

## 2.2 ENVIRONMENTAL NATURALISTIC

### 2.2.1 Description of geological and geomorphological characteristics as well as of botany and fauna.

The Kaštela Bay area is protected from the maritime side by the peninsula of Split on the eastern side and the island of Čiovo on the western side. The mountain of Kozjak protects this area from the northern winds and continental climate.

The flysch soil enables the presence of surface waters, mainly seasonal streams that spring up on the border of flysch and karstic terrain on the slopes of Kozjak. Streamlet Jadro in Solin and Pantan in Trogir are significant watercourses.

The mild climate enables the cultivation of Mediterranean crops, primarily olives and grapevines. On the site itself, it's interesting to point out the presence of a spring which is captured today.

During construction work, a Roman sarcophagus lid that was used as a watering hole for the livestock, was found near the spring.

Due to favourable natural conditions, the Kaštela Bay was abundant with fish and particularly with shellfish. It's also confirmed by the discovery of a sarcophagus in Kaštel Sućurac, from the late ancient period, mentioning a magister conquiliarius, service related to shell fishing.

### 2.2.2 Classification of environmental problems (water, waste, etc.).

Like the entire area of the Kaštela Bay, Trstenik was exposed to pollution due to intensive industrialization during the 20th century. The nearest operating factory is the Cemex cement plant.

The presence of a large cement plant in the nearby vicinity of the site significantly spoils the environment visually and aggravates development of tourist activities. Another problem is the devastation of the coastal zone and the site itself by the construction of illegal piers.

About 10 years ago, on the site itself, an illegal pier was built and unfortunately, it hasn't been removed since. The possibility of continuation of the research and tourist



valorisation of the site has been considerably inhibited by the presence of an illegal pontoon pier on the site itself.

### 2.2.3 Choices made for the conservation and enhancement of the landscape and the environment.

Considering the specific character of the site, partly located in the shallow underwater, and high sensitivity of the finds, it is necessary to develop models to enable quality presentation and valorisation in relation to the natural environment. The wider area of the Kaštela Bay is marked by significantly dense population. Intensive urbanization and industrialization have resulted with devastation of numerous cultural heritage sites. The closest example of devastation is the port of the Roman colony Salona, where fuel tanks and product pipeline were built on the location of the port in Vranjičko Blato. Only a few small coastal areas have not been devastated by construction and embankment.

Primary protection through research and raising the awareness of local public about the need of cultural and natural heritage preservation and involvement of various stakeholders in the future valorisation and research projects is one of the ways to contribute to the preservation of the valuable cultural and natural heritage for the future generations. Another way of contribution to the preservation of the underwater cultural heritage is the establishment of stricter protection regimes that would also include less complicated legal instruments of implementation.

Accordingly, intensification of activities of the Ministry of Culture and the relevant Department for Conservation is necessary as well as the establishment of better cooperation with other state, regional and local authorities.

## 2.3 HISTORICAL AND CULTURAL CONTEXT

### 2.3.1 Short description of the environment or landscape of the archaeological site (e.g. mountain, valley, plain, natural landscape, modern urban centre, etc.).

Observed in wider spatial context, Trstenik today is the eastern part of Kaštel Sućurac, which is largely urbanized. Kozjak hill lies behind the site and on the entire area of today's Kaštela.

Although the altitude of the highest peak Debelić (778 meters) is relatively low comparing to other mountains in Central Dalmatian coastline, it dominates the landscape visually mainly because of its elongated steep cliff.

The position of the site along the seashore is defined by the coastline stretching in the approximate east-west direction. The eastern boundary of the site is defined by the Vrila creek and in the terrestrial part, distinct boundary towards the west is still not defined. Here, the terrain rises gently towards the Gojača area, where the coast is steeper compared to the area of Trstenik itself.



A small peninsula is formed by the coastline in the area of the site and on the coast eastern from the creek, rocks that were carved back in the Roman period are visible. A thick layer of washed-up mud is formed in the underwater in front of the creek mouth and most of the underwater area is covered by Posidonia seagrass.

2.3.2 Historical meaning (e.g. chronology, historical background, historical development of the site, important historical events connected with the site, etc.).

In the period of the Roman ruling of this area, the entire territory of the Kaštela Bay surroundings was an integral part of the ager of the Colony of Salona. This Roman metropolis and the largest ancient city on the eastern Adriatic coast was inhabited by approximately 60,000 inhabitants in the period of its biggest peak. Considering the great needs for the maritime supply of the city and the hinterland of the Roman province of Dalmatia, it's quite clear that the necessity for construction of numerous port facilities in the city and the immediate surroundings existed. The connection of Trstenik with Salona is unquestionable - the western entrance to the city is only 3 kilometres away. A Roman road Salona – Tragurium passed through the site and in the immediate vicinity the Salona necropolis existed. Due to the roman road's position and the abundant source of water, formation of a Roman economic-residential complex (villa rustica) on this position was a logical choice.

The pediment of a smaller Roman temple dedicated to god Silvanus is preserved in the Archaeological Museum in Split, indicating not only the evident economic importance of the site but also the sacral component.

## **2.4 SYSTEM OF FRUITION**

We don't have archaeological park at the moment. We have a lot of experience with digital VR technology used in our other projects. In this project we are planning to implement innovative approach using mobile ICT presentation set.

2.4.1 Opening of the area (free; closed with a fence, but always accessible; opening hours; only guided tours).

2.4.2 Access of the visitors to the entrance (pathway, cycling way, by car, parking place - capacity, public transport, access for disabled persons, etc.).

2.4.3 Moving through the area (walking, cycling, possibilities for disabled persons, etc.).

2.4.4 Information for visitors on site (e.g. information centre, information panels, reconstructions, ICT and digital tools, tourist info point etc.).



2.4.5 Describe your online outreach. Do you have your own website? Provide analytics. Do you have official social media pages (X, Facebook, Instagram, Twitter, YouTube, TikTok)? Provide analytics. Is your site featured in regional, local and national touristic websites? Provide analytics.

2.4.6 Museum and/or exhibition place.

2.4.7 Public facilities (e.g. toilets, bar/restaurant, thematic/non-thematic children playground, place for special events, etc.).

2.4.8 Pricing policies:

- description of different tickets (free admission, reduced tickets, regular tickets, combined tickets with other attractions in the nearby areas);
- special services (guided tours, laboratories) or experiences (VR, immersive rooms);
- bookshop / cafeteria and other services.

2.4.9 Presence of infrastructures for physical and cognitive accessibility.

2.4.10 Presence of other structures potentially to be used for the visit.

2.4.11 Identification of ICT and digital solutions FOR ARCHEODIGIT.

*For each topic pay attention to the following immersion levels:*

- *High immersion;*
- *Medium immersion;*
- *Low immersion.*

2.4.11.1 Describe the ICT technologies/digital tools? already used in the archaeological site with the aim:

- to improve/enlarge presentation/interpretation of the archaeological heritage, to enhance the territorial/cultural identity, to promote the protection of archaeological heritage;
- to enlarge audiences (also from target audiences usually not used to cultural tourism experiences);
- to better analyse features and needs of archaeological area' visitors;
- to define needed competences of operators demonstrating use of ICT/digital tools.

For each listed tool please provide the following information:

- Is it designed for remote use, or is it site specific? Or both?
- Which devices can it be accessed from? PC / mobile / touchscreen / VR gear / other (specify) / more than one.
- Can it be implemented? How? i.e. does it have a CMS or other systems allowing curators or designated officials to implement new content?



- Where is it hosted (cloud / Physical server)? And by whom (the public body managing the site or the company providing the service)?
- Fruition effort (mostly relevant for site specific exhibits): how often is it available to the public? Does it require the presence of dedicated personnel to be used?
- Maintenance: is there an active maintenance contract? For how long? How often does it need maintenance work?

2.4.11.2 List the public/private authorities and bodies involved in ICT/digital activities and briefly explain their respective role, competencies and tasks.

2.4.11.3 List the target groups (cfr. 3.2 and 3.7) and stakeholders to which ICT/digital activities are targeted and explain why they are the ones addressed. Also describe the methods and strategies used in the framework of ICT/digital activities and types of activities implemented for each target group. Finally describe the tools and instruments used in ICT/digital activities.

2.4.11.4 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints and threats) concerning ICT (SWOT analysis).

2.4.12 Are there staff training projects on the use of ICT?

## **2.5 ECONOMIC CONTEXT**

2.5.1 Catchment area of the possible users/visitors (e.g. the proximity to urban centres or tourist locations).

The area of Kaštel Sućurac represents the easternmost part of today's City of Kaštela. It's also the administrative centre of the settlements of Kaštela. The area of Kaštela, particularly the coastal part, is becoming a desirable tourist destination lately attracting significant number of visitors during the summer season. The neighbouring city - Solin also records an increase in the number of visitors and the biggest archaeological park in Croatia – Salona is the most important and the most visited archaeological park in Dalmatia. The bigger tourist centre in the immediate vicinity is the town of Split, the administrative centre of Split-Dalmatia County. Like Kaštela, Split also records large increase in the number of visitors, arriving more and more in the off-season period.

According to the last Census of Population of Croatia from 2021, 423,407 inhabitants live in Split-Dalmatia County, with majority living in the town of Split and in the surrounding cities and municipalities. In Split-Dalmatia County, in 2023, 3.9 million of arrivals and 20.2 million of overnight stays were recorded.



2.5.2 Describe your on-site public. Provide any available information on the segmentation of your visitors. How many of them are local? How many come from a different region or country? How old are they? Are they frequent consumers of cultural products (books, theatres, exhibitions, museums, etc.)? What's their degree of education?

A large part of tourists visiting this area have interests that include visit of museums, galleries, historical sites and archaeological parks. The potential of development of cultural tourism in Split area is best reflected perhaps through the increase of number of visits to the major cultural-historical attractions such as Diocletian's Palace and the historic core of Split, Salona Archaeological Park, Klis Fortress and the historic core of Trogir. In 2023, Diocletian's Cellars, managed by The Split City Museum, have attracted 252,000 visitors, Salona Archaeological Park about 39,000 visitors and Klis Fortress more than 100,000 visitors. In addition to tourists, large number of potential visitors are represented by various categories of local inhabitants.

Considering a good coherence and cooperation of educational and cultural institutions in this area, a large number of potential users are represented by students of different ages.

Five elementary schools in the area of The City of Kaštela are involved in the educational programs of the local museum. Members of the local heritage associations, alongside with the school population, have an important role as they participate in the activities related to cultural heritage preservation and valorisation. Due to the location of the site in the shallow underwater, an important role is played by divers and diving associations and clubs. In Split area, there are five active diving clubs with enriched programs and diving activities including also the participation of members in the archaeological research and reconnaissance of the underwater.

2.5.3 Area of potential interest for the economic consequences of the Park management activity (regional level).

The proximity to major tourist centres and large number of visitors who visit the cultural sites in the nearby surroundings represent the great potential for development of the model of archaeological park in Trstenik underwater area. The uniqueness of Trstenik archaeological site is the fact that wooden ships that were found here are in an extremely good state of preservation.

In the wider area there are no such examples so the site complements the story of the ancient past of this area, indivisible from Salona – the capital city of the Roman province of Dalmatia.

Hence, with proper and systematic valorisation of the site the economic effect could achieve stronger influence on the wider area of the central Dalmatia.



#### 2.5.4 Accessibility by roads (primary, secondary), public transport, airport.

The easiest access to Trstenik site is via Dr. Franjo Tuđman Street, that passes through the site, approximately 50 meters away from the coast. The problem is that the largest part of the land part of the site is privately owned, so the parking and the access to the coastal area are difficult. The closest access to the coast is over Trstenik creek, recently renovated. Approximately 500 meters north, near the site, there is Kaštel Sućurac railway station. Considering the congestion of the roads during summer, the planned improvement of the local railway line would contribute significantly to the better access of the site. In Kaštela area, Split-Kaštela Airport is also located, which is the busiest airport in Croatia after Franjo Tuđman Airport in Zagreb. The focus of this project is the sea access.

The towns: Kaštela, Split, Solin and Trogir gravitate to the Kaštela Bay. The connection by the sea is not developed enough and besides seasonal lines between Trogir, the island of Čiovo and Split there is no line transport for passengers.

The Museum of the Town of Kaštela is based in the Vitturi Castle in Kaštel Lukšić. The castle is located on the seashore enabling the potential to be connected with Trstenik, by sea. This project will attempt to elaborate the model enabling the visit of the site by sea.

#### 2.5.5 The system of museums, monuments of cultural interest etc., in the regional level.

As a regional self-government, Split-Dalmatia County is the largest and most populous county in Croatia. It covers the central part of Dalmatia with its capital and the largest Dalmatian city – Split.

It borders with Dubrovnik-Neretva County on the south and with Šibenik-Knin County on the west. The northern border of the county is the state border with Bosnia and Herzegovina.

There are 25 active museums in the county, founded by local and regional authorities. Besides local and regional museums, on the territory of the county, national museums are active as well.

It is important to emphasize that the oldest museum in Croatia is located in Split - the Archaeological Museum. Rich permanent displays of local museums testify the long tradition and cultural heritage of this area.

In addition to museums, art galleries, either independent or integrated into museums, are also active in this area. The Meštrović Gallery in Split is one of the most famous in Croatia. Similarly, archaeological parks operate within museum institutions. The most famous example is certainly already mentioned Salona Archaeological Park in Solin.

In the context of Trstenik archaeological site, it's important to mention the Archaeological Museum in Split, as a place where part of the finds from the site is



preserved and the Croatian Maritime Museum in Split, where the complete perforated dolium is stored.

#### 2.5.6 The system of tourist facilities (hotels, bed & breakfast, restaurants, etc.).

In the city of Kaštela and its surroundings (city of Solin), there is a wide range of tourist offer providing a unique stay including quality accommodation and rich gastronomic offer. Hotels in Kaštela offer various types of accommodation, from luxurious hotels with stunning sea view to family-friendly hotels with a cosy atmosphere. Some of the hotels allowing guests the possibility to enjoy in Mediterranean stay and historic surroundings are:

1. Hotel Štacija – A luxurious hotel with sea view, located in Kaštel Lukšić. In the hotel, there is a restaurant with rich selection of Mediterranean cuisine and a bar with a terrace.
2. Hotel Riva - A superb boutique hotel located by the sea, in Kaštel Lukšić. Hotel offers breakfast terrace with sea view, outdoor pool, restaurant and luxurious rooms and suites with balconies.
3. Hotel Baletna škola – located on the promenade in Kaštel Kambelovac. Features a beautiful rooftop terrace and a cocktail bar with amazing sea view. The hotel offers comfortable rooms with mountain or sea view and a restaurant with a wide selection of traditional dishes.
4. Benjamin Hotel – historic hotel located in the city centre of Kaštel Novi. Guests can choose accommodation in authentic rooms with sea or city view, enjoy in traditional Dalmatian cuisine or relax in hotel caffè-bar.
5. Heritage Villa Vitturi Sea View - Situated in a 17th-century stone villa in the heart of Kaštel Lukšić, just across Vitturi Castle from the 15th-century. Features rooms with balconies where traditional surroundings are combined with modern furniture.
6. Hotel Aqua - Guest Rooms & Suites Kaštela - a modern hotel with stunning green terrace, located in Kaštel Lukšić, offering sea view or mountain view rooms.
7. Hotel Salona Palace - located in the town of Solin, just a few steps from the entrance to Salona Archaeological Park, features an indoor and outdoor pool, ideal for socialising and recreation, and a restaurant. Hotel offers luxurious and modern equipped rooms with maximum comfort, a sauna and a wellness centre.
8. Hotel President Solin - A luxurious hotel located in the heart of the town of Solin, famous for its ancient sites and rich Mediterranean culture. Hotel offers comfortable rooms and suites which are luxuriously designed, a restaurant with exquisite cuisine, a bar, an outdoor pool, a spa and a gym.

Restaurants in Kaštela area have an extensive offer of traditional Dalmatian specialties, authentic local dishes and various international specialties. Some of the



restaurants where guests can experience a combination of superb dishes and wonderful ambiance are:

Restaurant Štacija, Mala Mora Restaurant & Cocktail Bar, Restaurant Spinnaker Marina Kaštela, Restaurant Baletna škola, Restaurant Kadinela, Restaurant & Bar Nautilus, Tavern Intrada, Tavern Pizzeria Lanterna.

In Kaštela, there are also several wineries offering enjoyment in tasting of superb wines with centuries old tradition of production. Some of the wineries have in the offer the possibility for guests to learn more about the process of wine production, see the vineyards and taste the wines on the professionally guided tasting are: Winery Marin Milan - Crljenak kaštelanski, Winery Bedalov, Winery "Bat", Kastel Sikuli.

## 2.5.7 Sustainable touristic ecosystem FOR ARCHEODIGIT

2.5.7.1 Describe the local/regional heritage policy/priorities, with regards to touristic development and activities, formulated or implemented in the protected archaeological area concerned, incl. any interrelation with other policies when related (sustainable development, protection of archaeological sites, tourism development, employment policy, etc.).

### Cultural development strategy of the City of Kaštela 2017-2023

Culture and cultural-historical heritage are identified as important determinants of the identity

of Split-Dalmatia County. In Croatian public discourse, the term culture is often identified with cultural heritage that refers to material and intangible (spiritual) production of individuals or groups, inherited by the ancestors. From the beginning of tourist movements and tourism as an economy branch, the culture has been a significant factor of the attractiveness of certain areas resulting with the development of cultural tourism.

The importance of cultural tourism was recognized already in the Cultural Tourism Development Strategy from 2003, related to the increase in demand for cultural tourism and that is conditioned by socio-demographic and lifestyle changes differentiating an increasing number of tourists with a stronger interest in culture.

Further growth of cultural tourism is also predicted in the Tourism Development Strategy of the Republic of Croatia until 2020. Cultural tourism has a distinctive importance and a big potential for further development of the City of Kaštela area, due to its' affluence of cultural and natural heritage and other cultural resources.

A positive factor for the future development of cultural tourism lies in the fact that the City of Kaštela is located on the coast of the Adriatic Sea and near the town of Split, so the cultural tourism can be developed on the existing base of beach (summer) tourism.



LINK: <https://www.kastela.hr/wp-content/uploads/2017/09/Prijedlog-Strategije-kulturnog-razvitka-Grada-Ka%C5%A1tela-2017-%E2%80%93-2023.pdf>

## Cultural Development Strategy of the City of Split 2015-2025

The main highlights of the Cultural Development Strategy of the City of Split 2015-2025:

Synergy with other cities in the surrounding pentapolis (Trogir, Kaštela, Solin and Omiš) and municipalities in the joint metropolitan area (Klis, Dugopolje, Podstrana, etc.) for enhancement of the effect by content sharing.

## Strategic Plan of the Ministry of Culture 2020-2022

General Goal 1: Development of cultural and artistic creation and production  
Specific Goal 1.1: Support of artistic creation, entrepreneurship and culture participation  
General Goal 2: Protected and preserved cultural heritage  
Specific Goal 2.3: Development of museum activities  
Specific Goal 2.5: Availability of cultural heritage in digital environment

LINK:

<https://minkulture.gov.hr/UserDocImages/dokumenti/Strate%C5%A1ki%20plan%20Ministarstva%20kulture%202020.%20-2022..pdf>

## Sustainable Tourism Development Strategy until 2030

### 8.1. Strategic Goal 1: "Year-round and regionally more balanced tourism"

For more even collocation of tourist activities during the entire year in tourist-developed areas, the focus must be on the improvement of the added value of existing tourist products and the creation of the conditions for further development of special forms of tourism, with more active participation of the local community in these processes.

#### Priority areas

1.1. Development of more balanced and inclusive tourism through tourist products with higher added value

link: [https://narodne-novine.nn.hr/clanci/sluzbeni/full/2023\\_01\\_2\\_18.html](https://narodne-novine.nn.hr/clanci/sluzbeni/full/2023_01_2_18.html)



2.5.7.2 Describe the existing initiatives/methods/actions/projects currently/already implemented in your archaeological site aimed at valorising and promoting heritage as well as to strengthen touristic ecosystem (capturing the uniqueness of the cultural site and methods that defines the cultural identity of the location, combining tangible and intangible heritage).

The specific character of Trstenik archaeological site requires adjusted approach to activities related to valorisation and promotion within tourist ecosystem. Since the first archaeological research in 2003 and the extraction of a large ceramic container dolium, the site has attracted notable attention of the media. Various institutions of different character have been involved in the systematic research. Besides University of Zadar, the Croatian Maritime Museum from Split has been involved in the research in the beginning, and from 2015, the Museum of the Town of Kaštela. The beginning of the research was initiated by Dr. Irena Radić Rossi from the University of Zadar, working systematically on the promotion of the site through the cooperation with the media, public lectures and academic works.

It's important to highlight that the site was included in the educational project Sailing to the past – a small school of Kaštela Bay heritage. One of the sites that was included by the project was the Trstenik site, and the project was conducted jointly by the Croatian Maritime Museum from Split and the Museum of the Town of Kaštela.

The idea of the usage of a historical wooden ship in the tour of the underwater archaeological sites in the Kaštela Bay was developed through this project, conducted from 2017. to 2019. Barbarinac and Trstenik sites were included in this project and the accent was on the Sikuli site, in the area of today's Resnik, near Kaštel Štafilić.

2.5.7.3 Describe any new/innovative/potential initiative/activity that could have concrete possibilities to be introduced in your archaeological site to strengthen touristic ecosystem. Also indicate the main conditions and requirements for the concrete realisation of such new initiative(s), e.g. touristic resources, etc.

The idea of including the Trstenik archaeological site in the Archaeodigit project is linked to the UnderwaterMuse project, which strived to create ways for presentation of the rich underwater cultural heritage to the general public. A model of the virtual presentation of the Sikuli/Resnik archaeological site in the Museum of the Town of Kaštela, in Vitturi Castle, was developed through the project. In the permanent display of the museum, using VR glasses (Oculus 2), reconstructions of the site, that is three phases of the usage of the site, can be seen.

The oldest reconstruction is the one of Neolithic settlement, which is submerged today and lies at a depth of 3 meters.

The second phase is reconstruction of the late Hellenistic fortified settlement Sikuli, and the third phase is a Roman phase with the reconstructed port pier.



The other project that could be used in the Archaeodigit project is the Wrecks4All project.

Like in the UnderwaterMuse project, the goal of the project was to make underwater cultural heritage accessible to wider public using digital technologies.

2.5.7.4 List the target groups and stakeholders that should be involved in the framework of new policies and approaches for sustainable tourism activities and products in connection with archaeological site. Also explain why they are the ones to be involved.

- Museum of the Town of Kaštela – a cultural institution that conducts continuously various activities related to the site, in cooperation with partners and the City of Kaštela.
- The City of Kaštela – the relevant local government authority
- Kaštela Tourist Board - local tourist board
- Split-Dalmatia County - regional government authority Split-Dalmatia County Tourist Board-regional County institution
- Ministry of Culture/Conservation Department in Trogir: state authority responsible for Kaštela area
- Archaeological Museum in Split - museum preserving part of the finds originating from Trstenik
- Croatian Maritime Museum Split - museum preserving part of the finds originating from Trstenik
- Museum of Croatian Archaeological Monuments-national Museum conducting archaeological research on the nearby Spinut site. This site is similar in character to Trstenik.
- Elementary school „Kneza Mislava “/Kaštel Sućurac: local elementary school institution
- High school „Braća Radić “- Kaštela high school centre with gymnasium programs
- University of Split/Arts Academy – this research - educational institution, through Conservation Department, is actively participating in the activities linked to conservation and restoration of the archaeological finds.
- University of Split/Faculty of Humanities and Social Sciences – within the Faculty of Humanities and Social Sciences, Department of History and Department of Art History are operating and have well-established cooperation with local museums, in which there are teaching bases. The students participate in the archaeological research and educational projects linked to the cultural heritage.
- University of Zadar/Department of Archaeology – Prof. Dr. Irena Radić Rossi is the long-time leader and the initiator of the research of Trstenik
- Society for the Preservation of Cultural Heritage Bijaći - local association engaged in the preservation and valorisation of the cultural heritage of Kaštela



2.5.7.5 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) of archaeological area in relation to sustainable tourism activities and products (SWOT analysis).

Continuous research on the Trstenik site, conducted for about 20 years, has led to unique results with great resonance in the public. Well-preserved wooden ships found in the shallow underwater are rarity in the Adriatic area, offering an exceptional potential for valorisation and tourist presentation. Besides the ships, on the site there are also construction made of Hispanic amphorae, ceramic dolia and wooden shore construction. Through comprehensive documentation and scientific valorisation of the results, the possibility of creation of reliable reconstructions opens up, through different phases of existence. In that way, the functioning mode of the Roman economic-residential complex with emphasized maritime component in the Salona ager could be presented vividly to general public.

Due to the character of the site and the sensitivity of finds in the shallow underwater, presentation of the remains "in situ" represents a challenge. In that sense, digital technologies will be a backbone and an essential tool for the presentation of the archaeological sites.

Another problem in the presentation is the accessibility of the site located in the shallow underwater, without developed infrastructure for the reception of the visitors. Most of the land part of the site is privately owned, and on the majority of the land parcels there are family houses.

Within the project, the possibility of connection of the site with Vitturi Castle in Kaštel Lukšić, by sea, will be considered. A big problem represents the existence of an illegal pontoon pier in the area of the site.

2.5.8 Are there staff training projects linked to economic and tourism development?

No.



### 3. MANAGEMENT PLANS

#### 3.1 Is there an "archaeological project" that underlines the reasons underlying the creation of the Site?

Depending on the available funding sources, continuous archaeological research has been conducted for about 20 years, with minor interruptions. The mentioned results of the research and the need for stronger tourist valorisation and the protection of the site have led to the initiative. The entire area of the Kaštela Bay is abundant with archaeological finds due to specific natural conditions and the protected bay.

There is an initiative to integrally protect the remaining preserved part of the coast and archaeological sites such as Pantana, Divulje, Resnik, Barbarinac, Solin (the port of the ancient Salona) and Spinut, for the future generations.

#### 3.2 Make a general presentation of the organisational structure regarding planning and management of archaeological site. Also list and briefly describe the different bodies involved in the planning and management, including their role, competencies and tasks. Briefly also describe the relationship with the national level.

Pay attention to the following professional figures:

- A. Management;
- B. Promotion and communication;
- C. Architecture and construction;
- D. Hosting and catering services.

##### A. Management

The uniqueness of the site is that it's located underwater and as such, it is under maritime domain. For all matters related to the site, The Ministry of Culture is responsible. For each dive a permission must be requested after which the Ministry issues a decision. For the management of the site, a concession is granted. For now, no one has a concession for the site management.

Through project, research will be made and the way of management and presentation to general public will be determined.

B. Promotion and communication – not existing

C. Architecture and construction – not existing

D. Hosting and catering services – not existing



**3.3a Do you have a Management Plan for your archaeological site? In such case describe the Management Plan (priorities, vision, management objectives, expected results, existing and potential opportunities and problems).**

No.

**3.3b In case there is no Management Plan, are management objectives/priorities/activities set out in any other specific document (e.g. policy document). If yes describe them.**

The Museum of the Town of Kaštela, as an institution founded by the City of Kaštela, is a local museum with a wide range of actions and activities. In The Cultural Strategy of the City of Kaštela (2017-2023) goals that include the establishment of a network of archaeological parks in the city area are defined. In the stated strategy, the development of the museum as the leader of the organizational structure and coordinator of the activities of the establishment of archaeological parks is highlighted.

**3.3c If there is no Management Plan, what do you think are the main objectives of the current activity?**

- Preserving systems with a specific archaeological interest  
**Yes**
- Promoting scientific research  
**Yes**
- Promoting public fruition and public service through access policies and raising awareness of the value of Cultural Heritage  
**Yes**
- Promoting enhancement and educational-recreational activities with the use of ICT tools  
**Yes**
- Planning and structuring of governance models  
**Yes**
- Modelling a sustainable economic development  
**Yes**



**3.4 Level and extension of cooperation/coordination among local actors both in the setting up of the Management Plan/policy and in the management. Who are involved, how and to what degree (process/type/method of involvement, activities).**

Not applicable.

**3.5 Level and extension of involvement of the public in the setting up the Management Plan/policy and in the management of sensitive and protected areas (who, how and to what degree is the public involved). Describe the participatory framework (process of involvement, activities).**

Not applicable.

**3.6 A GIS is normally used for management activities. If so, how?**

In our case, GIS is exclusively used for track locations, their upgrade and enhancement.

**3.7 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) in relation to coordination and coordinated management policies and plans (SWOT analysis).**

As a weakness, the lack of a management plan and coordination of activities on the site itself can be highlighted, representing also an opportunity and a chance to be completed in the future.

As a threat, inadequate management of the site that could result with its devastation can be highlighted.

The advantages are: the uniqueness of this site, its importance to the history of the city and the possibility of connection with other sites in the city area.

**3.8 How do you evaluate the economic and financial sustainability of the site.**

The site is a marine property; therefore, it will not be possible to charge for the tickets separately.

It is considered that the number of visitors to the Museum of the Town of Kaštela will increase due to the appeal of VR presentation base of the site resulting with more revenue to the museum from the sale of museum tickets.

The goal is to create a portable VR platform for the presentation of this site.



**3.9 Methods and strategies are applied to monitor economic impact results and evaluate and review them**

**For the methodology and for more detailed information see:**

**<https://eum.unimc.it/it/catalogo/808-common-sustainable-governance-model-for-archaeological-parks>**

To be defined.



## 4. CONCLUSION

Having taken into account all the above STRUCTURING FACTORS, summarise the major problems, constraints and threats affecting your archaeological site as well as challenges and opportunities, analysing the following aspects:

### 4.1 Characterizing factors

Describe the components and relationships that characterize the system of your archaeological site, giving it an identity that distinguishes it from others.

The project idea contains a series of activities leading to a better valorisation of the Trstenik archaeological site. As stated in the previous chapters, the site is located on the land and in the underwater.

The land part is located in an urbanized area and for now, it is not possible to work on research and potential presentation. Part of the site in the shallow underwater is more accessible and this project will mostly include the underwater section of the site. An important component of accomplishing a quality achievement will be cooperation with the museums in which the archaeological finds from the Trstenik site are kept: the Archaeological Museum in Split and the Croatian Maritime Museum in Split. It is necessary to mention the museum space in the Archbishop's Castle in Kaštel Sućurac, where archaeological finds from the protective research are exhibited in the Archaeological department.

The role of the local and regional tourist board is vital in the tourist valorisation, with the additional promotion of the site through their regular activities.

Collaboration with the relevant Ministry of Culture's Conservation Department is indispensable.

The project activities will be carried out by The City of Kaštela, in collaboration with the local museum.

The main characteristics of the site are the location in the shallow underwater of the Kaštela Bay and exceptional preservation of the archaeological finds. This primarily refers to the wooden ships submerged at a depth of around 2 meters.

The main determinant that singles out this site comparing to other similar archaeological sites is the fact that similar examples have not been recorded on the eastern Adriatic coast.

### 4.2 Qualifying factors

Describe the elements or conditions that can give your archaeological site a certain quality, importance or value today without changing its structure or characteristics.



Positioning the site as a must-visit for visitors motivated by the archaeological heritage will be conducted primarily by the creation of digital content. In the creation of that content, data obtained from the evaluation of the results of previous research and studying the relevant literature are very important. Digital reconstructions of the discovered Roman ships, each unique in its own way, will be a referential presentation for the archaeological site.

Through documentation and site processing, it will be strived to obtain a comprehensive picture that will be the basis for quality virtual reconstruction. An important segment that will enable additional quality is the establishment of the model of the site access by sea.

In that way, if the idea of the restauration of traditional wooden ships is accomplished, it will be enabled to visitors to be introduced to the rich maritime heritage of this area and Dalmatia as a whole, via sailing on the newer ships that are becoming more and more rare.

The additional quality is added by the position of the site in the area abundant with cultural and historical heritage. The most important localities in the surroundings are: nearby historical core of Kaštel Sućurac with Archbishop's Castle in which the department of the Museum of the town of Kaštela is located, Salona Archaeological Park, Klis Fortress and the historical core of the town of Split with Diocletian's palace (UNESCO site).

### **4.3 Critical situations**

Describe the more or less acute set of elements or conditions of degradation or de-qualification or alteration of your archaeological site.

The eastern part of Kaštela Bay, including the coastal areas of Kaštel Sućurac, Solin and Split, is primarily an industrial zone. Cement plants, shipyards, cargo port, oil terminal and other industrial facilities of smaller surface have significantly changed the natural environment. The natural coastline is preserved in only small part of this area so it's extremely important to protect the remaining undevastated space. The closest industrial facility to Trstenik is Cemex cement plant that visually dominates the landscape.

Most of the land part of the site is privately owned, with built objects, so the possibilities of the archaeological park establishment are very limited.

Partial protective research and earlier finds from the wider area of Trstenik indicate the abundance of the archaeological site, but it's probably not likely that in the foreseeable future will be possible to materialize the idea of the land archaeological park.



In the underwater part of the site, the mentioned illegal pontoon pier constructed in the central part of the site creates a problem whilst the other finds, except of the cage with Hispanic amphorae, have been buried for preservation.

#### **4.4 Challenges and opportunities**

Indicate challenges and opportunities of your archaeological test area.

It is clear from the above that numerous challenges, that the implementation of the ARCHEODIGIT project will have to tackle, are present. Considering the character of the archaeological site, obtainment of a quality documentation and research will be necessary in order to gain a comprehensive insight into the archaeological site. On the other hand, the uniqueness of the site will create a new content that will enable diversification of the county's cultural offer.



## ARCHAEOLOGICAL SITE OF FULFINUM-MIRINE (CROATIA)

### 1. PRESENTATION OF THE ARCHAEOLOGICAL PARK

#### 1.1 Relevant legislations in force at national/regional/local level regarding management/protection/valorisation of archaeological sites

Documents dealing with the protection of cultural, historical and archaeological heritage emphasize the principle of integral protection. Archaeological heritage is protected by law and is in most situations owned by the state or public institutions. The area of culture and cultural heritage is regulated with all regulations and laws, those that it is done directly by those who do it indirectly. A lot of proven regulations make sense normative determination of structural norms and rules in certain areas. The goal is to constant improve governance in the field of culture, and in the process decide to increase influence local self-government unit and the same profession in order to ensure the highest possible quality and transparency of the management process and created conditions for strengthening the infrastructure in culture and systematic encouragement of cultural life and creativity.

Sustainable tourism development strategy until 2030 through Priority Area 1.3. Strategic goal 1. has "Year-round and more regionally balanced tourism": Development of special forms of tourism and structured development of products, and envisages special encouragement of cultural tourism based on the valorisation of tangible and intangible cultural heritage (especially UNESCO), development of cultural thematic roads and paths (cultural routes, pilgrimage routes, etc.) and other contents of cultural and creative industries.

Through the National Culture and Media Development Plan for the period from 2023 to 2027, special goals and measures have been defined, one of which relates to the preservation and sustainable use of cultural heritage, and prescribed measures 1. Ensuring research, protection and preservation of cultural heritage and 2. Support for valorisation, interpretation, promotion and sustainable cultural management heritage.

The Law on the Protection and Preservation of Cultural Heritage and the Law on Physical Planning and Construction do not use the term integral protection as methods of improving the condition and use of cultural and historical heritage. Both laws only prescribe the obligation to include conservation measures and conditions for the protection of cultural and historical heritage (including archaeological) in the



content of all spatial and urban plans. It is necessary to continuously research the issue of integral protection of cultural, historical and archaeological heritage and inclusion in the active space of human life.

Archaeological parks are first of all archaeological sites. As such, they are put under a very strict legislation concerning archaeological heritage – in order to become an archaeological park, the site is protected. there are two major levels of protection: preliminary and permanent protection; furthermore, the site can be treated as a protected area, or as an isolated site. The fact that an archaeological site is protected as a national heritage opens the perspectives for the finances and the realization of the park itself.

The protection and preservation of archaeological heritage is carried out by the Directorate for the Protection of Cultural Heritage of the Ministry of Culture and its conservation departments and the Directorate for Archival Activities and Archaeological Heritage of the Ministry of Culture. Archaeological research in Croatia is carried out by ten institutions of archaeological profile (six archaeological museums, one institute, two departments at the faculties in Zagreb and Zadar and one department at the Croatian Academy of Sciences and Arts). Archaeologists employed in museum institutions are also engaged in research. They are also dealt with by several private archaeological companies, which are staffed and technically equipped for archaeological research, and their work is mainly focused on protective archaeological excavations. Certain associations can conduct archaeological research, if they are previously approved by the Directorate for Archaeological Heritage of the Ministry of Culture.

The Ministry of Culture has a law and ordinance dealing with issues of archaeological research, entitled "Law on the Protection and Preservation of Cultural Heritage" and "Ordinance on Archaeological Research." provide research funding, details on applying for a research authorization, and commitments upon completion of the research.

Development Plan of Primorje-Gorski Kotar County for period 2022-2027. is a fundamental document on thinking about development at the regional level. It is also a framework for the adoption of a number of regional and local sectoral strategies, and represents a common vision and action plan of all entities from the public, private and civil sectors in the County.

Implementation program of the Municipality of Omišalj for the mandate period from 2021 to 2025. through measure 8. Culture, physical culture and sport, foresees activities: 8.1. investments in protection cultural heritage and conservation and promotion of cultural and historical values.



When searching for a cultural property, i.e. an archaeological site that is the object of research in progress, the following data are displayed in the Register of Cultural Property on the website of the Ministry of Culture:

Omišalj, Mirine-Fulfinum Complex with an archeological site

Label of good: Z-5016

Legal status: Protected cultural property

Type: Immovable cultural good - cultural - historical area

Classification: Archaeological heritage

UNESCO protection: No

Position: Omišalj

County: Primorsko-goranska

## **1.2 General presentation of the archaeological park**

The municipality of Omišalj covers the northern part of the island of Krk and the islet of St. Marko, where the island is connected to the mainland by the Krk Bridge.

As the main entrance corridor to the island itself, it has a very important transport role, which is evident in connecting the islands of Krk, but also the islands of Cres and Lošinj with the mainland. The location of the Rijeka International Airport in the Omišalj municipality also gives it wider traffic importance.

Northern part of the island, which is almost entirely occupied by the municipality of Omišalj, is the lowest part of the island. The total land area of the Municipality of Omišalj is 39.5 km<sup>2</sup>, accounting for 8.9% of the island's surface. This area is basically a karst plateau, sloping southwest, and its elevation is generally between 60 and 70 meters above sea level. The plateau in the southwest is limited by the recesses: Omišalj Bay, Sepen Bay, Lake near Njivice, Veliki and Mali lug and the valley of Veli Potok with Soline Bay.





*Photo credit : Kaducej, d.o.o*

The archaeological park "Mirine - Fulfinum", is located at the foot of the millennium hill fort Omišalj, island of Krk, in the adjacent Sepen bay. The locality extends along the entire southern surface of the Ert Peninsula. The entire archaeological zone comprises several well distinguished localities, marked as sectors, which, although forming the whole of Fulfinum-Mirine, may be represented separately.



1.2.1 Location of the site on the modern map (modern settlements, roads in the distance of 30-60 km)



1.2.2 View of the site.



*Fulfinum*



*Mirine basilic*



### 1.2.3 Size of the area (in ha).

According to the Spatial Plan, the building land for the Archaeological Park is defined by the boundary of the archaeological area and the natural beach and includes land and sea surface. The surface of the marine area (waters) is no more than 17.45 ha, and the surface of the terrestrial part not more than 39.20 ha and are formed within the area marked on the cartographic plan views.

The building plot of the future Visitor Centre is formed within the surfaces of the existing cadastral plot no. 4561, 4562, 4563, 4564 cadastre Omisalj, the maximum allowed area about 8.100 m<sup>2</sup>.



## 2. ELABORATION OF DOCUMENTS AND KNOWLEDGE FRAMEWORKS

### 2.1 ARCHAEOLOGICAL SYSTEM

2.1.1 Plan of the archaeological area with the historical structures and modern infrastructure



Chronologically, the sites in Sepen Bay can be listed in the following order: On clear terrain, the city of *Fulfinum*, with all its infrastructure, is initially created. It is assumed that its construction itself can be located in the first half of the 1st century AD, and the prestigious status of the Roman *municipium* acquired during the second half of the 1st century - in the time of the Flavians, as its full name suggests - *Municipium Flavium Fulfinum*. Research to date has shown that city owned the main town square - the Forum - with its facilities, such as a temple, an urban basilica and *tabernae*. Furthermore, a warehouse and part of the port were explored near the coast, as well as certain parts of its urban structures. The City had a well managed port, which was unfortunately destroyed during the construction of the DINA industrial plant. Outside the city are the remains of the old road that led further to the roman town of Krk



(*Curicum*), or in other direction, perhaps to the scaffolding on Voz, which could connect the island with the mainland since Antiquity. Along this road two necropolis were organized between 1st and 3rd c. AD. The remains of *Fulfinum* are hardly visible today because they are still mostly underground, and partly under the sea, which was one to two meters below today's level at the time of its flourishing.

On the outskirts of the city, during the Late Antiquity, appears a small necropolis with mausoleums. This kind of funerary architecture is not known, neither excavated in the whole region of Primorsko-goranska. The necropolis also gave an interesting overview of Late Antique grave architecture typology.

In the first half of the of the 5th century, a church was built in Mirine on the outskirts of the above mentioned necropolis. It is truly an imposing single-nave church structure with a simple cross-shaped floor plan. It is preserved up to the roof height and is the only Early Christian sacral object preserved at this degree not only on the island of Krk, but on the entire Croatian coast.

Further to the north-ouest, another complex from Late Antiquity was excavated in last years (since 2016). This residential and economic building belonged beyond doubt to the larger Church complex of Mirine.

## 2.1.2 List of visible historical monuments

### PARK EXPANSION:

SECTOR A – MIRINE

SECTOR 1 – FORUM

SECTOR 2 – NECROPOLIS

SECTOR 3 – CASTRUM

SECTOR 4 – THERMAL COMPLEX AND TROAPSIDAL CHURCH

SECTOR 5 – TOWER

SECTOR 7 - URBAN VILLA

SECTOR 8 - LATE ANCIENT BUILDING OF UNKNOWN PURPOSE





### 2.1.3 Short descriptions of each monument or group of monuments

#### PARK EXPANSION:

##### SECTOR A – MIRINE

The church at Mirine is undoubtedly the most striking monument of the entire archaeological zone and it is not only extremely well preserved, but also partly reconstructed. North to the church the past archaeological research revealed three masonry tombs, one of which was certainly vaulted. To the south, an atrium was discovered. This is the only excavated Early Christian atrium on the Eastern Adriatic coast.

##### SECTOR 1 – FORUM

The central part of the forum space is almost completely explored : the forum temple and the city basilica are visible today for visitors. Some parts are yet to be excavated at the moment of its final arrangement, such as the southern (or rather southeastern) part, where a southern portico with colonnade is expected.



## SECTOR 2 – NECROPOLIS

Two mausoleums have been discovered in this sector, preserved in the height sufficient for presentation (up to 1.20 m before conservation).

## SECTOR 3 – CASTRUM

Another unexplored area that could form an integral part of the park in the future, as its walls are very well preserved (more than 1 meter in height, before excavations).

## SECTOR 4 – THERMAL COMPLEX AND TROAPSIDAL CHURCH

This part of the site has been explored recently, since 2016. Sector 4 is currently ready for presentation, knowing that the excavations can take place parallelly, as an integral part of “live activities” of the Park.

## SECTOR 5 – TOWER

This area has not been researched, nor can it attract a large number of visitors for now. However, the tower is very attractive because of its good preservation, and it certainly needs to be worked on in the future.

## SECTOR 6 - ROMAN HOUSE

The zone was explored in 1977, but unfortunately, during that excavations the earth deposits were not removed, making it impossible for the time being to include it into the representative part of the Park. However, this part of the ancient city is potentially interesting for its inclusion in the representative part of the Park, since the floors and the structures of the building are well preserved. In the near future, the revision of archaeological excavations should be organized, as well as the removal of earth piles.

## SECTOR 7 - URBAN VILLA

An urban villa type building was located in one of the southern *Insulae*, situated along the coast. It possibly had a porticoed courtyard. Only the north western part of the building with an internal courtyard measuring 13x17.5 m was discovered. A 1.5 m wide porch was also established from the west side of the courtyard. The excavations that took place in the 80-ies revealed that the building was probably built around the mid 1<sup>st</sup> c. AD.

## SECTOR 8 - LATE ANCIENT BUILDING OF UNKNOWN PURPOSE

This area has been only recently recognized in archaeological surveys. It has not yet been excavated, but it will be treated in the near future as a part of “live activities” of the Park, including excavations opened to the visitors.



#### 2.1.4 Images of the most important monuments



*SECTOR A – MIRINE*



*SECTOR 1-FORUM*





*SECTOR 2-NECROPOLIS*



*SECTOR 4-THERMAL COMPLEX AND TROAPSIDAL CHURCH*



### 2.1.5 Present condition of the monuments (visibility, quality, maintenance)

The site is relatively easily accessible to visitors due to its proximity to the Rijeka airport and transport connections to the mainland. Visitors can explore some parts of the ancient Roman city of *Fulfinum* from the first century as well as the early Christian complex of Mirine from the fifth century, including the necropolis. Information panels have been placed on the site that provide visitors with basic information about the history and significance of the site. However, additional efforts in the form of digital guides or interactive elements could improve visitor experiences. The ruins are relatively well preserved, but there are parts that are sensitive to weather conditions and vegetation. The basilica has been preserved up to the height of the roof and is the only preserved sacral object of its type not only on the island of Krk, but also in the entire Croatian coast. One of the most spectacular finds from the period of early Christianity – the Mirin comb was discovered in April 2017 during a Franco-Croatian research project and is one of only five such objects that have been found in the whole world to date.

During the past years, archeological researches have been carried out, which have enriched knowledge about the site and enabled a better interpretation. Findings from the locality are partly exhibited at the site, but most of the material is still not adequately presented to the public. Occasional conservation interventions are necessary to preserve the structures.

## 2.2 ENVIRONMENTAL NATURALISTIC

### 2.2.1 Description of geological and geomorphological characteristics as well as of botany and fauna

The largest surface of the site is occupied by olive groves at different stages of neglect, although some progress can be seen in the arrangement of olive groves by private owners in recent time. The olive groves are with each other bounded by drywall at different stages of damage. Area adjacent to archaeological sites it is mostly overgrown with taller macchia, except in the area maintained by mowing. In that a large number of solitary or small groups of trees appear in the maintained area, most of them deciduous. On the south-western edge of the site is a coastal sit habitat specific vegetation protected through Natura 2000 Programme. The same should be protected as much as possible from possible negative influences and presented as an interesting botanical element.



Within the wider area of the Archaeological Park, land use should be directed towards the preservation of the existing pattern of combined olive growing and grazing, which is a timeless mediterranean category that links antiquity to the present day. Part of the land should also be used for the presentation of Roman vegetable gardening and horticulture.

Removal is planned in the area of minimal vegetation that defines the former urban space all shrubby vegetation, thinning of trees and intensive maintenance of grass by mowing and grazing.

In the area of sparse vegetation outside the former city, which includes the sectors of Mirine with its Mausolea, the Thermae and the Troapsidal church, envisaged a slightly milder reduction regime vegetation.

### 2.2.2 Classification of environmental problems (water, waste, etc.)

At the moment, care for horticulture, waste and water system is managed by a utility company owned by a local government unit, all within the existing capabilities (infrastructure, finance).

### 2.2.3 Choices made for the conservation and enhancement of the landscape and the environment

The immediate area and views of the heritage themselves should be refined with the presence of autochthonous bushy vegetation as a contrast to the neighboring urban and industrial area. In the background of the archaeological park is an area intended for supervised agriculture and grazing, which would preserve the timeless ambience of the traditional mediterranean landscape bordered by a dry wall.

## 2.3 HISTORICAL AND CULTURAL CONTEXT

### 2.3.1 Short description of the environment or landscape of the archaeological site (e.g. mountain, valley, plain, natural landscape, modern urban centre, etc.)

The archaeological site is located at the foot of the thousand-year-old fortress of the Omišalj hill, on the island of Krk, in the neighboring bay of Sepen. Archaeological site is located outside the urban area, but close to it. The locality extends along the entire southern surface of the Ert peninsula. The area is basically a karst plateau, inclined towards the southwest, and its altitude m is mostly between 60 and 70 meters.



The archaeological zone includes several well-marked localities marked as sectors, which, although they form the whole of Fulfinum-Mirine, can also be represented separately.

2.3.2 Historical meaning (e.g. chronology, historical background, historical development of the site, important historical events connected with the site, etc.)

The town of Fulfinum was founded in the first half of the 1st century, and it acquired the prestigious status of a Roman municipium (city with a privileged position) during the second half of the 1st century, during the time of the Flavians, as evidenced by its full name - Municipium Flavium Fulfinum.

It seems that the ancient city of Fulfinum is located on the territory that belonged to the community of Fertinata (fortina Fertinates), along with the Curticae, one of the two known autochthonous groups that have lived on the island of Krk since prehistoric times, as indicated by the text of Pliny the Elder (Naturalis Historia III, 25 [21], 139). The archeological potential of the wider area of Omišalj, that is Fulfinum globally, was noticed already on the occasion of the first publication of the 3rd volume of the large collection of Latin inscriptions Corpus inscriptionum latinarum. An inscription mentioning the veteran VII is described here for the first time. Legion, Lucius Trebi Paulus, found in the area of Omišalj (then also referred to as Castel Muschio), supposedly built in a private house. In the 20s of the last century, Gjuro Szabo warned about the remains of the early Christian church on Mirinah in the Sepen bay, near Oklad, in his overview text Monuments of the Past of the Island of Krk, published in the magazine *Hrvatski planinar*. Soon after, the church, which was extremely well preserved at the time, was the subject of the creation of the first photographic documentation, today stored in the photo archive of the Conservation Department in Rijeka, in which the Krk erudite Branko Fučić participated.

In those years, under the leadership of Veljko Paškvalin, several small sounding surveys were carried out in the interior of Mirin and in the immediate surroundings, during which a part of the church's sanctuary, an altar grave in the shape of a cross and a part of the white mosaic floor, whose exact location is unknown, were discovered. However, the full significance of the archaeological potential not only of Mirine, but of the entire Sepen cove, was noticed only in the 70s of the 20<sup>th</sup> century. At that time, the project for the construction of two industrial zones - today's facilities of JANAF and DINA/LNG - proposed the implementation of more extensive archaeological research area of the Sepen bay, and the first sounding surveys were carried out under the leadership of Aleksandra Faber from the Archaeological Institute in Zagreb and Radmila Matejčić from the Maritime and Historical Museum



of the Croatian Coast in Rijeka. It was found that in Sepen bay there is a significant ancient site hidden under high thunderbolts east of Mirin.

During the archaeological research started in 1974, an important inscription was found built into the west tower in the southwest corner of the church's narthex, which was irrefutable proof that the city of Fulfinum was located right next to Omišalj (earlier researchers placed it in Punat or Baška). These investigations continued until 1982 under the leadership of Aleksandra Faber, whose goal was to clearly define the boundaries of the city and its archaeological potential. Although there were never more extensive publications, these investigations determined the location of the forum and the ancient port, which was soon destroyed by the construction of a dock for DINA's needs. During the works in the port area, the remains of the breakwater and the ancient waterfront were also found, a castrum was found in the eastern part of the city, and in the southeast, under the guidance of archaeologist Radmila Matejčić, the remains of an ancient building named horreum (Latin for warehouse) were discovered.

Along with these finds, two necropolises were found at the location of Kurilovo and Siniške, as well as an ancient road and a bridge. All this was published by Aleksandre Faber in the early 1980s. At that time, research died down, and considering that the sites were not protected, today they are in a rather bad condition. However, the conducted research prevented the construction of industrial zones that would destroy the entire archaeological heritage. With the exception of the necropolis and the southern part of the city port, the area of the ancient city has been preserved like this. New research carried out from the beginning of the 90s to 2004, under the guidance of archaeologist Nino Novak, made it possible to explore the area of the church, and the walls were preserved and partially reconstructed. The existence of a late antique necropolis was established and the exact contours of the atrium were defined. Between 2004 and 2005, work continued in the area of the so-called three-apsidal church and thermal complex (under the leadership of Nino Novak and Nikola Jakšić), where an ancient, suburban, larger complex was discovered, inside which a small three-apsidal church was located in the early Middle Ages. This part of the site was preserved with concrete plaster, and the floors were uncovered, the edges of which were also reinforced with concrete plaster, and left open. On the occasion of the aforementioned works, the excess construction material was used for the conservation of the segment of the southern perimeter wall of the forum area, where the wall, without prior recording of the existing condition, was preserved by completely covering the stone structure with concrete plaster.

In 2006, archaeologist Morana Čaušević-Bully started work on the forum of the city of Fulfinum, ending a 25-year hiatus in researching the city's space. In the first years,



it was necessary to clear the area on which the ancient town square is spread of thick deposits of stone and earth from previous research, and to clean and revise the old results and, in parallel, to start a program of systematic research and permanent conservation. All previous works have enabled the final creation of the first accurate topographical survey using the total station completed in 2012, as well as the determination of the exact zone of the city and its periphery. The first protection of an individual locality, namely the church in Mirine, came into force only on August 15, 1972, while the entire zone was included in protection only on April 28, 2005, when the spatial plan of the municipality of Omišalj was drawn up. The protection zone was reduced in 2009 as a result of new research on the part of the site that is under the current DINA facility.

The most recent decision on the protection zone was made on November 19, 2011 and is in force today. On that occasion, it was clearly emphasized that the church on Mirine, the forum and the Kurilovo necropolis (today on the territory of JANAF) belong to the protection zone. Archaeological Park Mirine - Fulfinum was mentioned in the publication of the Ministry of Tourism and Sports as one of the top 20 archaeological destinations in Croatia. It is also mentioned in the popular-scientific catalog Archeology and Tourism in Croatia, which accompanied the exhibition of the same name by the author Sanjin Mihelić, set up in 2009 on the occasion of marking the European Year of Creativity and Innovation.

One of the most spectacular finds from the period of early Christianity – the Mirin comb was discovered in April 2017 during a French-Croatian research project and is one of only few such objects that have been found in the whole world to date, certainly represents one of the most significant findings of Croatian early Christian archaeology.

## **2.4 SYSTEM OF FRUITION**

2.4.1 Opening of the area (free; closed with a fence, but always accessible; opening hours; only guided tours)

Opening hours are every day from May to October from 10 to 1pm and 6pm to 9pm, although site is not closed with a fence so for now it is accessible anytime from sea or walking trail. Admission for site-seeing is free. Expert guidance is possible during business hours and by appointment.



#### 2.4.2 Access of the visitors to the entrance (pathway, cycling way, by car, parking place - capacity, public transport, access for disabled persons, etc.)

The site can be accessed by an unclassified road where, at the end, there is a parking area for several vehicles. Then through the seafront promenade visitors can access the archaeological area.

Although there are no difficult conditions for people with reduced mobility and disabled in one part (access to the site - promenade), there is a need to incorporate additional elements and arrange paths for this group of visitors to fully enable sightseeing.

Area is located outside the tourist centres, but the settlements of Omišalj and Njivice are approximately 3 kilometers away from the site. Also, Rijeka Airport is about 5 kilometers away, but so far there are no buses and similar public transport lines organized for tourist visits to the site, but rather those visits are organized individually or through travel packages of individual agencies.

#### 2.4.3 Moving through the area (walking, cycling, possibilities for disabled persons, etc.)

Moving through park is currently possible by foot and eventually bike although the terrain is not completely correspondent. There are two levels of access, a raised walkway or dirt road. The location can be reached by car at some point, but the fence is opening only for vehicles of the technical service and exceptionally for the needs of organizing an event.

#### 2.4.4 Information for visitors on site (e.g. information centre, information panels, reconstructions, ICT and digital tools, tourist info point etc.)

Information boards are placed at key points so visitors have an opportunity to find out more about site. There is a need for more dashboards, since only few existing ones have been providing with basic information and directions. Also, the site lacks modern information boards, didactic, 3d solutions, larger numbers that would show some dislocated sites and artifacts, so it can be concluded that there is currently a lot of space for improvement in this type of signalling/informing. These activities are also planned in the new general plan for the Archaeological park Mirine-Fulfinum.

The site does not yet have an information centre but there is temporarily an info point/exhibition space provisionally organized within the church space in Mirine,



where the Municipality of Omišalj employs a person who is in charge of managing the locality and providing information to visitors.



2.4.5 Describe your online outreach. Do you have your own website? Provide analytics. Do you have official social media pages (X, Facebook, Instagram, Twitter, YouTube, TikTok)? Provide analytics. Is your site featured in regional, local and national touristic websites? Provide analytics.

There is a facebook page dedicated to the locality which can be accessed via the link: <https://www.facebook.com/p/Fulfinum-Mirine-100088816724322/?rdr>, whose managing is contracted by the Municipality of Omišalj for the purpose of greater visibility and availability of information.

Informations about the locality are also available on many sites related to tourism and historical heritage, some of them are listed as follows:

- Municipality of Omišalj tourist board - <https://www.visit-omisalj-njivice.hr/mirine-fulfinum.aspx>
- Island Krk tourist info - <https://www.info-krk.com/omisalj/kultura/69/fulfinum>
- Municipality of Omišalj heritage - <https://www.heritageomisalj.hr/portfolio/mirine-fulfinum-bazilika/>
- Tourist stories - <https://www.turistickeprice.hr/en/upoznajte-mirine-fulfinum-arheoloski-biser-podno-omislja/>
- <https://darkoantolkovic.wordpress.com/2015/02/09/arheoloski-lokalitet-mirine-fulfinum/>
- Transnational sites:
- <https://www.facebook.com/adriontransferproject/>
- <https://adriontransferplatform.cti.gr/mirine-fulfinum-archaeological-park-croatia/>



#### 2.4.6 Museum and/or exhibition place

Visitors can see the exhibition dedicated to the archaeological sites of the municipality of Omišalj in the area of the narthex of the church in Mirine. The exhibition was officially opened in June 2010 and is intended as a permanent exhibition, which can be visited during the summer months, when it is open every day to the public. At the exhibition is possible to get information about almost all archaeological research carried out in recent years in the area of the municipality of Omišalj, all through a total of nine information boards.



2.4.7 Public facilities (e.g. toilets, bar/restaurant, thematic/non-thematic children playground, place for special events, etc.)

The potential of the archaeological site of Fulfinum - Mirine is confirmed by the growing interest of wedding organizers, who increasingly recognize the value and attractiveness of the place as ideal for organizing such celebrations. The Municipality of Omišalj for special occasions rents the land in front of the basilica, where the tenants set up a tent and temporary facilities for the purpose of celebrating the wedding. Currently there are several different events during which the locality is visited in summer and winter months. These are Ancient days, classical concerts, school and kindergarten groups and journalists/study groups.



On the site is installed only chemical toilet and there are no accompanying catering facilities (cafe bars, shops, restaurant).

#### 2.4.8 Pricing policies:

- *description of different tickets (free admission, reduced tickets, regular tickets, combined tickets with other attractions in the nearby areas);*
- *special services (guided tours, laboratories) or experiences (VR, immersive rooms);*
- *bookshop / cafeteria and other services.*

Admission for site-seeing is free. Expert guidance is possible during business hours but only by appointment. There is no immersive rooms, but from the TRANSFER project within the Interreg Adrion program in which the Municipality of Omišalj participated as one of the partners, VR glasses were purchased, which are temporarily available at the office of the Tourist Board of the Municipality of Omišalj. The locality does not have additional commercial facilities, bookshop or similar.

#### 2.4.9 Presence of infrastructures for physical and cognitive accessibility

In order to improve the space in this sense, it is necessary to undertake interventions to eliminate construction and cognitive barriers. Although in one part there are conditions for access by people with reduced mobility and people with disabilities (access to the place - walkway), it is necessary to install additional elements and arrange paths for this group of visitors, which will fully enable sightseeing. These and the above-mentioned activities are part of the strategic and action plan. Furthermore, in accordance with the Spatial Plan of the Municipality of Omišalj, the conditions for unhindered access, movement, residence and work of persons with reduced mobility are specified, where it is stated that it is necessary to enable the accessibility of spaces and functions to persons with disabilities and reduced mobility at least to the extent and in the manner determined by current regulations. The prescribed number of accessible parking spaces within the parking area, an accessible pedestrian area, accessible entrance areas, communication, sanitary and reception areas, near the future visitor center are planned. The accessibility of the archaeological park as a whole is planned through the implementation of the adaptation of parking places, and the implementation of walkways with accessible elements to overcome height differences, all within the limits of the protection of the archaeological heritage, and with the aim of making the most valuable parts of the heritage accessible to people with reduced mobility.



#### 2.4.10 Presence of other structures potentially to be used for the visit

There are no additional structures beyond those already described.

#### 2.4.11 Identification of ICT and digital solutions FOR ARCHEODIGIT

New ICT equipment is being purchased by Omišalj, with delivery finalized in July 2022, as a result of participation as pilot area in the TRANSFER project, co-financed with funds from the Interreg Adrion Program.

The equipment purchased:

- stand alone solar power system intended to provide power for the equipment for analytical system for monitoring visitor characteristics and preferences, which includes cameras, sensors and analytic software.



- virtual Reality system kits, full HD tablets with augmented reality support





The ICT solution also includes a VR (virtual reality) and AR (augmented reality) application. The application on the initial screen displays an introductory menu in 4 languages (HR, ENG, GER, ITA) and a certain number of thematic units (information in the form of text, photos, video and audio recordings). The application has been specially created for the needs of the project and has the primary purpose of serving as a guide through the site of the project.

#### 2.4.11.1 ICT technologies/digital tools already used in the archaeological site with the aim:

- to improve/enlarge presentation/interpretation of the archaeological heritage, to enhance the territorial/cultural identity, to promote the protection of archaeological heritage are all digital solutions above mentioned.

Also, the Facebook page that was launched as part of the project proved to be effective for the purpose of promoting the protection of the archaeological site, and the Municipality of Omišalj decided to continue managing it until further notice.

**The mobile application (AR)** is intended for installation on tablets. The information in the tablet application is exchangeable using a content management system (CMS), support for digital content management, the ability to add languages and the ability to upgrade the application. Tablets are intended for use on location, although the application could also be used using smartphones. The application has been specially created for the needs of the project and has the primary purpose of serving as a guide through the site.

**VR set** is made for remote use but can be also site specific. It includes the help of the staff to provide instructions for use, therefore it is available in the tourist board



office in the winter months, and it can be available during the operating time of the locality. To use the VR set, the employees of the Tourist board attended short training on using of the VR set so that they could present it to interested visitors and provide basic technical support.

This digital solutions are attracting also a younger population that are not inclined exclusively to traditional sightseeing, so they find this experience particularly interesting. The reason is that the VR set and application offer the uniqueness of virtual reality (VR), high levels of immersion with the feeling of "immersion" in another world.

- to better analyse features and needs of archaeological area' visitors is set analytical system for monitoring visitor (visitor counter) characteristics and preferences, which includes cameras, sensors and analytic software;  
The VR set and **visitor counter** have a physical server with the equipment, and the application is in the cloud, and they are hosted by the company providing the service. The VR set is available during the working hours of the Tourist board office/site. For ease of handling and control, it is recommended that the VR set and tablets are used with brief instructions and supervision of staff, although they can also be used independently by users who are adept at technology.  
Maintenance of ICT equipment is not currently under contract, but the staff is trained for easier interventions, and the company that produced the equipment is available for interventions, when the need arise.

2.4.11.2 List the public/private authorities and bodies involved in ICT/digital activities and briefly explain their respective role, competencies and tasks.

Municipality of Omišalj owns the equipment and manages its use.

Tourist Board of Municipality of Omišalj has trained staff to provide support in the use and maintenance of the equipment. It provides practical use of equipment with end users.

2.4.11.3 List the target groups (cfr. 3.2 and 3.7) and stakeholders to which ICT/digital activities are targeted and explain why they are the ones addressed. Also describe the methods and strategies used in the framework of ICT/digital activities and types of activities implemented for each target group. Finally describe the tools and instruments used in ICT/digital activities.



Target audience are primarily the end users of the developed ICT solutions, but also various other stakeholders relevant to the archaeological site. The beneficiaries of the equipment are to be the site visitors, as well as the stakeholders involved in the development of economic sustainable activities.

Target groups and users are:

- local population of the Municipality of Omišalj and the island of Krk - new content for them and their guests,
- domestic and foreign visitors - additional content that will attract tourists and is not strictly related to the sun and the sea,
- school and student groups - additional content that can be included in the organized trips around the island
- lovers of archaeology, ancient history and culture,
- academic community and experts - holding educations, workshops and seminars,
- catering service providers - hoteliers, private renters - travel agencies, private landlords and hotels that can offer their guests additional content,
- participants in cultural events (Ancient days, classical music concerts...) held on site during the summer,
- pedestrians on the Camino route, which partly passes through the archaeological site,
- cyclists on the cycle path that passes through the archaeological site.

Two digital training modules (1 on ICT tools, 1 on economic activities) have been elaborated. Training modules have been designed for the staff of the stakeholder developing the sustainable economic activities, as well as for the staff which will be working with the end users of the ICT solution.

While purchasing the ICT equipment and elaborating digital training modules, technical /thematic information material has been developed, which is used to promote the pilot actions among citizens and stakeholders. Content is primarily based on increasing the visibility of the site and providing additional content to attract visitors.

2.4.11.4 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints and threats) concerning ICT (SWOT analysis).

**STRENGTHS** Preservation of archaeological site, use in advertising, can be used to promote events on site, resurrect completely ruined monuments, reduces the vulnerability of heritage.



**WEAKNESSES** Relationship between the surrounding heritage site and the public, high cost, need of special expertise in design and installation, causing extra cost.

**OPPORTUNITIES** Use of ICT in the study of site in a way can contribute to access to discoveries in the future, promotion of cultural tourism, attraction of wider range of visitors of different age, education.

**THREATS** Affects the desire of tourists to be in the site and to observe VR reality, potential loss of cultural and historical value as a result of integration of the site with technology in favour of virtual reality.

2.4.12 Are there staff training projects on the use of ICT?

When new equipment was acquired, 2 digital training modules were held (1 on ICT tools, 1 on economic activities). They have been designed for the staff of the stakeholder developing the sustainable economic activities and for the staff which is working with the end users of the ICT solution (Tourist Board, Municipality). If arises a need for training of new staff, additional trainings will be organized.

## 2.5 Economic context

2.5.1 Catchment area of the possible users/visitors (e.g. the proximity to urban centres or tourist locations)

Omišalj is a municipality in western Croatia. It is located in the Primorje-Gorski Kotar County, on the island of Krk. Thanks to the proximity to the bridge (5km), the airport (1km) and the City of Rijeka (26km), it is an attractive destination for many visitors. On the island of Krk in 2023, 6.5 million overnight stays by tourists were realized. The nearest urban centers are the settlements of Omišalj (1-2 km) and Njivice (6km), given that the locality itself is in an isolated position.

2.5.2 Describe your on-site public. Provide any available information on the segmentation of your visitors. How many of them are local? How many come from a different region or country? How old are they? Are they frequent consumers of cultural products (books, theatres, exhibitions, museums, etc.)? What's their degree of education?



According to data from the Tourist Board of Omišalj Municipality, the total number of visitors changes depending on the season and individual events, and can be estimated at around 14,000 per year. Approximately 15% are domestic visitors, and 85% are tourists.

- Antic days manifestation counts about 1000 people per day (x3 days),
- Classical concert 130 per concert (six in the season),
- About 200 school and kindergarten groups per year,
- Journalists and study groups about 50 per year.

### 2.5.3 Area of potential interest for the economic consequences of the park management activity (regional level)

The area of potential interest for the economic impacts deriving from the Park management activities is the entire regional territory and wider. Considering that the Omišalj Municipality is a very developed municipality (5th most developed in Croatia), both in terms of tourism and in general, thanks to its high standard and excellent geostrategic position, the development of the site and the creation of an archaeological park will make a great contribution to overall progress of cultural heritage of the region. Due to the favourable position and transport connectivity of the Omišalj municipality, its proximity to the airport, nearby city of Rijeka, tourist centre of Region – city of Opatija, fact that Omišalj represent gates to other Croatian islands and developed tourism branch in the county, with quality site promotion, information flow and greater engagement of target stakeholders, it is possible to meet a larger number of tourists and increase the number of visitors of site.

### 2.5.4 Accessibility by roads (primary, secondary), public transport, airport

Omišalj is located on a local road that is connected to the regional road that runs through the entire island from the Krk bridge to Baška. From the north, it is best to travel from the direction of Rijeka, and from the main road turn towards Krk bridge and follow the signs for Omišalj.

Today, Omišalj is a real little tourist pearl of Kvarner, which was helped by the very good transport connection with the mainland via the Krk bridge, numerous ferry lines with neighbouring islands, and with the rest of the world by air-Omišalj also hosts the Rijeka airport, which is particularly busy in the tourist season.

The proximity to regional capital city Rijeka also makes it possible to arrive by boat, and by alternative means of transport to Omišalj, as well as by rail (Rijeka).



The whole island is connected by regular bus lines. Also, it has many private taxi services, rent-a-car offices (airport), an e-bike sharing system connected on whole island.

#### 2.5.5 The system of museums, monuments of cultural interest etc., in the regional level.

The island of Krk is rich in cultural and historical heritage, both tangible and intangible. On the island there are numerous finds of the legacy of the Liburnians who inhabited the island until the arrival of the Romans in the 1st century. Special significance have the legacies of the Romans who ruled the island from the 1st to the 5th century. In the 7th century, the island was inhabited by Slavs.

From many cultural and historical heritage of island, sacral complex of the Cathedral of the Assumption of Mary in Krk from the 5th century can be stand out, Square Kamplin with the Frankopan castle and square tower (12th century), Church of St. Krševana (9th or 12th century) near the settlement of Milohnić, Church of St. Dunata (12th century) near the village of Kornić (5 km from Krk), a monastery with a museum collection in Malinska, a Franciscan monastery on the islet of Košljun near Punat, etc. Also, a special place in Croatian history is occupied by the early Romanesque Church of St. Lucia in Jurandvor, a sacred place of Croatian national history and culture. In the church there is the Bašćanska ploča, the most important monument of the Croatian language and literature, written in the Croatian script-glagolitic script (around 1100).

The closest major city of Rijeka has numerous cultural monuments, sites and several museums: City of Rijeka museum, Natural history museum, Maritime and History Museum of the Croatian Littoral Rijeka, Rijeka Museum of Natural History, Museum of Modern and Contemporary Art, Permanent exhibitions at the Faculty of Maritime Studies in Rijeka, Peek & Poke - Museum of Informatics, The Mažuranić-Brlić-Ružić Memorial Library and Collection, Sacred Collection of the Cathedral of St.Vid, Treasury and Gallery of the Shrine of Our Lady of Trsat, University Library Rijeka - Glagolitic Exhibition.

Of the cultural monuments in the city of Rijeka, the most significant ones are Church of St. Jerome and Dominican Monastery, Church of Our Lady of Lourdes and Capuchin Monastery, Cathedral of St. Vid, Old Gate or Roman Arch, Judgment Palace, City Tower, Stendarac - stone pillar for the flag erected by Emperor Maximilian, Church of St. Fabian and Sebastian, Synagogue, Church of the Assumption of the Blessed Virgin Mary and Kosi (skewed) Tower.



## 2.5.6 The system of tourist facilities (hotels, bed & breakfast, restaurants, etc.)

In the area of the municipality where tourism is one of leading branches, everything is adapted to the further development of tourism. Thus, in Omišalj and Njivice there are numerous accommodation units, private apartment and holiday renters, guesthouses, villas, hotels, campsites that have the capacity to accommodate a large number of domestic and foreign tourists.

Total accommodation capacities in commercial accommodation in the area of municipality of Omišalj in 2022. year are 9,148 beds. Non-commercial accommodation (houses and apartments for vacations and houses and apartments of residents of the municipality) has a total of 8,352 beds.

Most accommodation units are with 3 stars category, what is especially noticeable in private accommodation. There are a total of 600 private accommodation renters (physical person).

A large number of small and large tourist accommodation agencies and travel agencies operate in the municipality and the whole island, and tourism is managed by the tourist boards of each municipality, Krk island and County.

The gastronomic offer is one of the most important segment of Krk's hospitality and tourism. Along with outstanding Krk olive oil, Krk cheese and quality fish and lamb, the island of Krk can boast of numerous original taverns and good restaurants. Although most of them are seasonal character, every place on island has at least one to few year-round tavern/restaurant.

## 2.5.7 Sustainable touristic ecosystem FOR ARCHEODIGIT

2.5.7.1 Describe the local/regional heritage policy/priorities, with regards to touristic development and activities, formulated or implemented in the protected archaeological area concerned, incl. any interrelation with other policies when related (sustainable development, protection of archaeological sites, tourism development, employment policy, etc.).

In the Implementation program of the Municipality of Omišalj for the mandate period from 2021 to 2025, it is stated that tourism is one of the backbones of the economy in the municipality of Omišalj with a total share of 25% in tourism economy of the island of Krk. In the *Action plan* under measure 12. Economic development, activity 12.4. encouraging sustainable development of tourism is foreseen. Also, within the



SWOT analysis, the linking of culture and tourism was defined as an opportunity for further development of the municipality.

According to the Spatial Plan, the building land for the Archaeological Park is defined by the boundary of the archaeological area and the natural beach and includes land and sea surface. Furthermore, in the latest Amendments and additions to the spatial planning plan of the municipality of Omišalj (Official Gazette of the Primorje-Gorski Kotar County, No. 9/17), conditions related to the archaeological site were defined, which refer to: 1. type of works, 2. location of the intervention in space, 3. the purpose of the building with the number of functional units, 4. the size of the building, 5. conditions for the design of the building, 6. the shape and size of the building plot and/or the scope of the intervention in the space, 7. the location of one or more buildings on the building plot and/or within the scope encroachment in the space, 8. conditions for arranging the building plot, especially green and parking areas, 9. conditions for unhindered access, movement, stay and work of persons with reduced mobility, 10. method and conditions for connecting the building plot, i.e. the building to the traffic area and other infrastructure, 11. measures (methods) to prevent adverse impact on the environment and nature, 12. other conditions affecting the impact on the space, 13. parts of a complex building for which building permits are issued in the case of phased construction and/or parts of the building for which issue building permits in the case of phased construction of the building, 14. special conditions, 15. conditions important for the implementation of interventions in the area (obligation to remove existing buildings, rehabilitation of the terrain of the building plot, obligation to test the soil, compensatory conditions, etc.).

2.5.7.2 Describe the existing initiatives/methods/actions/projects currently/already implemented in your archaeological site aimed at valorising and promoting heritage as well as to strengthen touristic ecosystem (capturing the uniqueness of the cultural site and methods that defines the cultural identity of the location, combining tangible and intangible heritage).

Several participants from various sectors, researchers, conservators, urbanists, municipality of Omišalj have been working on the development project documentation of the site for many years, the Tourist board works on the promotion and organization of events at the site and the public, local community, tourists, children, experts are involved through various events (workshops, ancient days, concerts, presentations).



2.5.7.3 Describe any new/innovative/potential initiative/activity that could have concrete possibilities to be introduced in your archaeological site to strengthen touristic ecosystem. Also indicate the main conditions and requirements for the concrete realisation of such new initiative(s), e.g. touristic resources, etc.

There are many possibilities to strengthen touristic ecosystem, for example with introduction of cultural and touristic routes (Route of old ancient cities, Early Christian heritage route of the island of Krk, Route on the theme of Roman games and entertainment). The possibility of interpretation through different games that contribute in a fun way to getting to know history on the one hand, and on the other to a unique tourist experience. In this sense, it is possible to connect them in the European context and through different itineraries. Activities that would ensure development of such route are the valorisation and development of the thematic route, branding, promotion, souvenirs, maps, online marketing, programs for kindergartens and schools.

Of the greater actions and larger interventions, the development of locality and tourism would be most influenced by the definitive forming of an archaeological park with a built visitor centre, within which various attractive, touristic and accompanying facilities could be defined, which would attract the largest number of visitors. This would enable needed infrastructure that could handle greater number of visitors, with minimal impact on the locality itself. Also, formation of thematic children's playground and rest areas are additional facilities that would attract a larger number of visitors to the location, considering that apart from the archaeological heritage, there is currently no accompanying content or services on the site.

2.5.7.4 List the target groups and stakeholders that should be involved in the framework of new policies and approaches for sustainable tourism activities and products in connection with archaeological site. Also explain why they are the ones to be involved.

The future development of the archaeological park lies in the effective partnership and synergy of all actors: public and private sector, community, local stakeholders and citizens. It is necessary that all stakeholders are involved in all stages, from the development and planning of the archaeological park to the management and development of activities.

The involvement and cooperation of representatives of local communities, conservationists, tourism operators, property owners, policy makers, experts and professors of culture and tourism, archaeologists, actors preparing national



development plans and site managers are necessary to improve the protection of heritage resources for future generations and to achieve a sustainable tourism.

2.5.7.5 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) of archaeological area in relation to sustainable tourism activities and products (SWOT analysis).

**STRENGTHS:** continued archaeological excavations, geostrategic position, tourism development, defined spatial conditions, air transport infrastructure.

**WEAKNESSES:** lack of qualified personnel, insufficient infrastructure, land owner structure, financial constrains.

**OPPORTUNITIES:** young population density, EU support, ICT, tourism incentives, low-cost carriers, increase in tourism demand size, infrastructure development, seasonality reduction.

**THREATS:** environmental degradation, lack of skilled labor force, lack of new investment possibilities, political and economic instability, weak inter-institutional coordination. Tourism development can have adverse impacts on a site if it does not take account of the aesthetic, social and cultural dimensions, natural and cultural landscapes, bio-diversity characteristics and the broader visual context of heritage.

2.5.8 Are there any staff training projects linked to economic and tourism development?

Considering the development of the tourism sector of the island, there are courses and trainings for employees linked to economy and tourism, but they are privately organized for employees by private tourism companies, based on the need for certain education.



### 3. MANAGEMENT PLANS

#### 3.1 Is there an "archaeological project" that underlines the reasons underlying the creation of the Site?

Municipality of Omišalj until now has made conceptual design - landscaping project, preliminary museological program for archaeological park, main project - architectural - conservation project, main project - landscaping project and there is also basis study for the future presentation of the archaeological park (2014-2016), made by dr.sc.Morana Čaušević-Bully. This study provided guidelines for the further development of the park, a proposal for the content of the interpretation centre, proposals for setting up billboards, for arranging promenades and guidelines on how to take care of the archaeological park from the beginning onwards, arranging land-property relations and dynamics. In the mentioned study it is stated that after the works of arranging the park, it should be constantly taken care of by an employee archaeological collection, which should be established within the museum institution - suggested the beginning of negotiations with the Maritime Museum of the Croatian Littoral in Rijeka.

#### 3.2 Make a general presentation of the organisational structure regarding planning and management of archaeological site. Also list and briefly describe the different bodies involved in the planning and management, including their role, competencies and tasks. Briefly also describe the relationship with the national level.

The archaeological park is managed by the Municipality of Omišalj, in whose area the park is located.

The idea of an archaeological park was conceived when starting new research into the forum space of the ancient city. The work towards its realization was at a very slow pace, which is depended, of course, on many parameters, but mostly financial. Despite the aforementioned difficulties, archaeological investigations, which are the basis of its creation, were guided by each with the ultimate goal of landscaping the park. A valuable role has been played by the Association for archaeological research and promotion of the archaeology of Kvarner (alPAK Association, established in 2006. in Omišalj), which supported research, documentation, taking care of archaeological material and the state of the site, with the coordination of the Municipality of Omišalj and its Tourist board. After the renovation of the park, a constant care should be



taken by the employee of archaeological collections, to be established within the museum institution –

the intention is to temporarily submit the archaeological collection to the Maritime Museum of the Croatian Littoral in Rijeka. Future archaeological collection should be bound along the Mirine-Fulfinum Archaeological Park and in the future returned and stored in its own Interpretation centre within the locality from which it originates. The Interpretation Centre of the "Archaeological Mirine-Fulfinum Park "would have multiple roles including a storage site and space for further processing of archaeological material within the collection.

Due to its planned role in the archaeological collection, the Maritime and Historical Museum of the Croatian Littoral in Rijeka would thus be one of the main stakeholders in the project within the definition and management plan. Its participation in the Management Plan is foreseen through a working group, with expert support through the exchange of information and practices and the definition of management methods and strategies. The museum is organized into five departments: Department of Archaeology, Ethnographic Department, Cultural History Department, Department of Maritime History and the Pedagogical department so it has at its disposal all the necessary experts in the above mentioned fields and would play a large role in developing methods and strategies to support coordinated decisions and actions among different actors responsible for park management, identification of possible support measures and actions that can support cooperative approach, standards and concrete guidelines for development and integrated plan, indicators for monitoring and evaluation, efficient use of financial instruments.

Conservation Department in Rijeka for the Primorje-Gorski Kotar County / Ministry of Culture - Performs inspection tasks in the field of protection and preservation of cultural property, ensures co-operation with other bodies of local and regional self-government units, as well as legal and physical persons in order to promote and encourage the protection of cultural heritage. It has advisory role in legal aspect of defining possible actions and ventures on project management.

From the national level, there is support through the conservation department and financial support for site work and various events, both Ministry of Culture.

### **3.3a Do you have a Management Plan for your archaeological site? In such case describe the Management Plan (priorities, vision, management objectives, expected results, existing and potential opportunities and problems).**

The Municipality of Omišalj created a Management Plan for the Mirine-Fulfinum Archaeological Park as one of deliverables of the TRANSFER project.



The plan contains several units in which the following are dealt with in more detail: general data in the context of the archaeological park of Mirine - Fulfinum, subject of the management plan-legislation, historical overview, current state and conducted research, strategy and steps in heritage interpretation, demand analysis and projection of the number of visitors, projection of income. The Plan covers SWOT analysis, stakeholders, vision, strategic goals, measures and activities, action plan, management of the archaeological park Mirine - Fulfinum, management model and key stakeholders, financing possibilities, communication and promotion.

In addition, plan includes proposals for thematic cultural-tourist routes and products with examples of good practice of archaeological parks in the Republic of Croatia and Europe and a presentation of modern communication and interpretation multimedia solutions and channels of communication/digital promotion were prepared.

### **3.4 Level and extension of cooperation/coordination among local actors both in the setting up of the Management Plan/policy and in the management. Who are involved, how and to what degree (process/type/method of involvement, activities).**

The initial stage in the development of the archaeological heritage management plan is the involvement of all important stakeholders in its design and planning. These include: local communities, tourism workers, city administration, archaeologists, scientists, ministries of culture and tourism, urban planners and others interested. A very important item of valorisation of the site itself is the cooperation of all stakeholders who care about its valorisation. Archaeologists are researching the site, conserving it, collecting the remains, analysing them, documenting them and exhibiting them to the public in the museum. Other important participants are the local community, the tourist board, the competent museum, the ministries of culture and tourism, caterers, landowners, local entrepreneurs, etc.

Furthermore, the role of the Ministry of Culture of the Republic of Croatia, the competent archaeological museum, island local municipalities, the owners of land / real estate in the area, local entrepreneurs / associations of entrepreneurs are of great importance. These stakeholders can be involved in the project, in accordance with their interests, through various project activities: info days, workshops, working groups, publications, public calls and similar.



### **3.5 Level and extension of involvement of the public in the setting up the Management Plan/policy and in the management of sensitive and protected areas (who, how and to what degree is the public involved). Describe the participatory framework (process of involvement, activities).**

Despite some and isolated positive developments, the knowledge of archaeology as a significant potential segment of the domestic cultural and tourist offer has not yet been sufficiently adopted in Croatia, in the part where it is accessible and acceptable to the general public.

A big number of civil associations operate in the area of the municipality and the island societies in the fields of dramatic arts, dance, musical arts, books and publishing activities, fine arts and exhibition activities, audiovisual activities and others that will be possible include in the concept of sustainable use of the cultural heritage of the Municipality and do their work and values visible to a wider circle of visitors. Recognizing the fact that developed civil society is one of the preconditions and measures of democracy and stability local self-government units, associations are invited to cooperate in creating, involving, implementation and monitoring of projects for the restoration and economic use of cultural heritage. Also, an intangible heritage generates wellbeing, a sense of belonging and it connects people to their natural environment and is a strong factor in placemaking and economic regeneration.

Public can be involved in the project, in accordance with their interests, through various project activities: info days, workshops, different cultural events, giving opinions through survey questionnaires and social networks.

It is necessary to strengthen the local community and raise capacities and knowledge in the management, presentation, and use of heritage for the development of local economic products, souvenirs and services. In the use of ancient heritage, the local community also plays a major role in complementing and telling stories about the relationship with ancient heritage, through memories and legends. This would raise awareness, a sense of ownership, pride and responsibility for the heritage of the site and encourage community to use the heritage for development purposes.

### **3.6 A GIS is normally used for management activities. If so, how?**

The Municipality of Omišalj has an established internal GIS system, a system that integrates spatial data and tabular, non-spatial data into a "smart", interactive map that enables the creation of interactive queries (research), analysis of spatial information and editing of data. Databases were created after field survey and



computer data processing. The GIS database of the Municipality of Omišalj contains address models, measurements of buildings, road registers and records of communal infrastructure, cadastre data, records of maritime property, installations, spatial planning, boundaries and geodetic bases. GIS is updated as needed and can be supplemented with new content.

### **3.7 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) in relation to coordination and coordinated management policies and plans (SWOT analysis).**

The **strength** of Fulfinum-Mirine site lies in values of preserved structures of the ancient city, the diversity of remains, as well in the current planning, compliance with legal regulations and documentation of archaeological excavations. The archaeological park is built into the spatial planning documentation. There is already existing cooperation between researchers and higher education institutions and the Ministry of Culture has recognized the potential of the site. There is already a management plan for archaeological park Fulfinum Mirine from year 2021.

**Weaknesses** include insufficient space for processing and storage of archaeological material, insufficient cooperation and communication between competent institutions of different levels and departments, lack of management structure and site managers.

Undoubtedly, there is great potential for the development of the site and many **opportunities**. Revision of management plan created from new experiences and knowledge, new projects and content that will provide new perspectives and opportunities for development.

Creating learning opportunities from each other - institutions, organizations and individuals who care for and work on a daily basis on the conservation and use of the site. Training that would increase the potential of staff and those responsible for running and managing the site in the future.

As **threats** to the management plan, there may be disagreements about methods and strategies and the application of generalized instead of specific, unique, adapted to the site. Also, superficial cooperation of stakeholders relevant to this part of the project is possible treat.

### **3.8 How do you evaluate the economic and financial sustainability of the site**

Currently, the visitor infrastructure of site is not sufficiently developed and there is no ticket collection for sightseeing, events or additional commercial content that



would enable financial profit. There is a lack of additional facilities and commercial offer. The municipality of Omišalj leases land next to the basilica of Mirine for the purpose of organizing and celebrating weddings, but these funds are small compared to maintenance costs and the need for future investments.

The assumption of sustainability of the Archaeological Park of Mirine - Fulfinum can be ensured in future through different ways of collecting financial resources: by charging tickets, charging for participation in cultural programs, commission on the sale of souvenirs and local products, etc., donations and sponsorships, co-financing through EU and national programs (for route improvement projects), establishing the accept heritage program, advisory activities.

There is a special potential for achieving greater sustainability in the development of educational programs and visiting programs for children of preschool and school age. Another potential for ensuring income is through the development of the offer of cultural and especially creative tourism and voluntourism.

Additional potential lies in integrated tourism products that connect cultural and natural heritage.

The operational revenues of the project would in future include revenues from: entrance fees to the park, interpretation centre services, workshops, team building, archaeological camp, Night of the Museum events (night events on site, with organized transportation), festivals, professional tour guide service, catering services, souvenirs etc.

### **3.9 Methods and strategies are applied to monitor economic impact results and evaluate and review them**

The management plan defines reporting on implementation and potential limitations and needs identified during implementation procedures. The implementation of the action plan makes it possible to unify the results achieved by individual phases of implementation based on performance indicators.



## 4. CONCLUSION

Having taken into account all the above STRUCTURING FACTORS, summarise the major problems, constraints and threats affecting your archaeological park as well as challenges and opportunities, analysing the following aspects:

### 4.1 Characterizing factors

Excellent geostrategic position and traffic connection, the wealth of cultural heritage of the local and wider area in combination with tradition of tourism are starting strengths regarding to development of archaeological park. Also, number of actors are constantly collaborating on site development, improvement and preservation. Fulfinum-Mirine archaeological park is listed in a register of cultural goods of the Republic of Croatia as a protected immovable cultural property of the Republic of Croatia managed by the Ministry of Culture, so from the national level there is regular annually support through the conservation department and financial support for site work and various events through Ministry of Culture. Furthermore, a management plan was drawn up in year 2021, some digital solutions were introduced to modernize the presentation of heritage and the site is part of a cross-border cooperation project from which it will obtain additional financial support for the improvement of the locality.

### 4.2 Qualifying factors

The greatest value of site is certainly preserved structure of the ancient city, variety of remains and the recognition of the location as exceptional heritage value on a national level. The basilica has been preserved up to the height of the roof and is the only preserved sacral object of its type in the entire Croatian coast and wider.

There is a certain promotion of the park by the Tourist board, Municipality of Omišalj and engagement of local community in fostering intangible heritage. In summer season, locality is a special kind of a stage for different kind of events on site, festivals, ancient days, Mirine park summer party, open air movie nights, concerts, workshops, lectures etc.

### 4.3 Critical situations

One of the major drawbacks is the fact that the part of the land through which the park extends is privately owned and is a long process of ownership conversion and land acquisition by the municipality. The threat can be incoherence of project stakeholders and lack of resources (financial, human). Also, given that the industrial



complex (LNG, Adriatic oil pipeline) is in the immediate vicinity of the site, there is a danger of transformation of the original landscape.

#### **4.4 Challenges and opportunities**

On the basis of new knowledge and collected data, it is necessary to revise existing Management plan, redefine the goals and accordingly develop new strategies and revise an action plan to achieve these goals. It is necessary to re-evaluate the possibilities for the improvement of the locality, with reference to sustainable tourism and the results obtained from the activities of the ARCHAEO DIGIT project and the collected information, suggestions and opinions through trans-study workshops, surveys and other project activities.

In addition to the above, this analyse sought to explore the possibilities of transforming the site into the modern archaeological-tourism product with good management policy, sustainable tourism and use of inovative ICT solutions, and point to the potential of participation of the local population and all other stakeholders in the project.



## ARCHAEOLOGICAL AREA OF HELVIA RICINA (ITALY)

### STRUCTURING FACTORS

#### 1. PRESENTATION OF THE ARCHAEOLOGICAL SITE

##### 1.1 Relevant legislations in force at national/regional/local level regarding management/preservation/ valorisation of archaeological sites

The Italian legislation on management/preservation/valorisation of archaeological sites consists mainly in the Code of Cultural Heritage and Landscape (Legislative Decree No. 42/2004). Other relevant legislative references are:

- Ministerial Decree 244/2019, regulating archeologists' activities and providing the establishment of Lists of Professionals of Cultural Heritage
- Law No 57/2015, ratification of the European Convention on the Protection of the Archaeological Heritage of 1992 at La Valletta
- Decree No 154/2017, regulating public procurement related to works on Cultural Heritage
- Law 133/2020, ratification of the Convention on the Value of Cultural Heritage for Society of 2005 (Faro convention)
- Legislative Decree 26 April 2005, n. 63, containing urgent provisions for development and territorial cohesion, as well as for the protection of copyright. Provisions concerning the adoption of consolidated texts on compulsory social security and supplementary social security" converted into law 25 June 2005, no. 109 (Preventive archaeology)
- Legislative Decree No 36/2023, regulating the Public Procurement
- At the regional level the main legislative reference was represented by Regional Law no. 16/1994, establishing the Marche Archaeological System, repealed in 2000. LR 16/94 established the archaeological area of Ricina.

##### 1.2 General presentation of the archaeological site

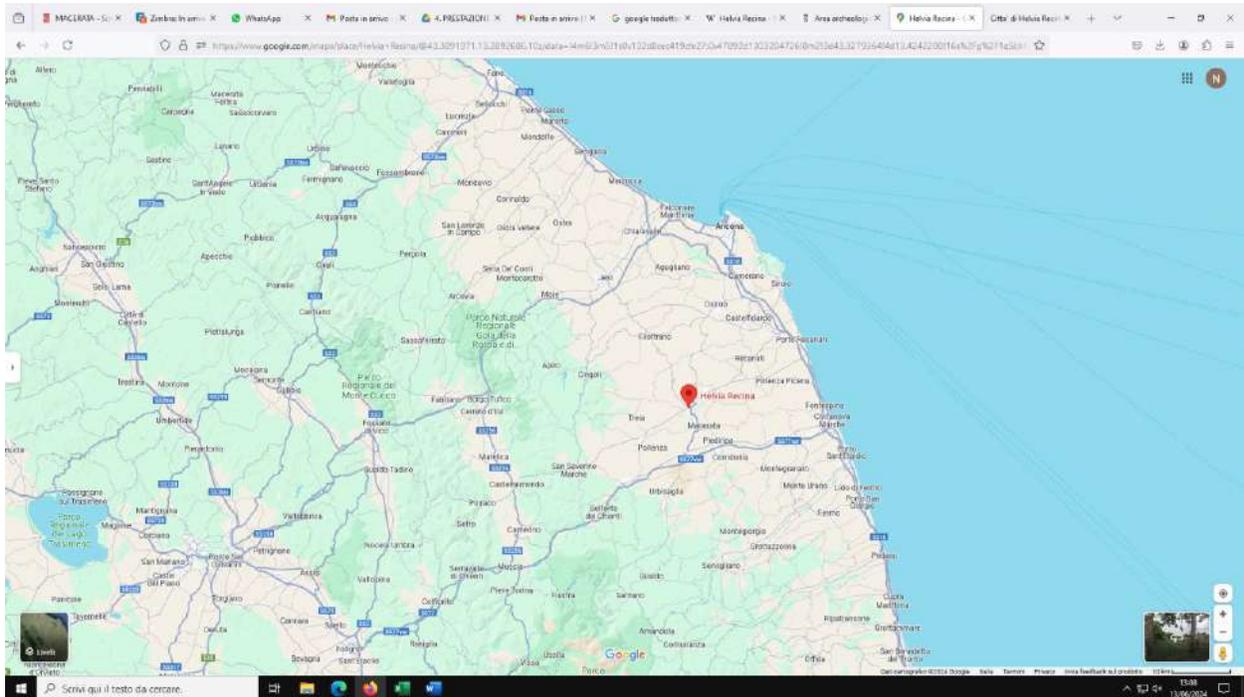
The Helvia Ricina archaeological area is located in the territory of Villa Potenza, on the outskirts of the city of Macerata. It preserves the remains of the ancient Roman Theater built around the mid-1st century AD, funerary monuments, marbles and epigraphs. Inhabited since ancient times, the town of Ricina became a Roman



municipium in the mid-1st century B.C., extending mainly along the left bank of the Potenza River. The importance assumed by the settlement over the decades can be attributed to its strategic position at the crossroads of relevant road axes, which favored the connection of the coast with inland Picenum centers as far as the Tyrrhenian Sea. Of the ancient settlement remain, today, few but significant traces dated between the end of the 1st cent. BC and the first half of the 1st century AD, all located in the vicinity of the monumental ruins of the Roman theater. An epigraph mentioning Emperor Septimius Severus as conditor (advocate and protector of the Roman people) testifies that in 205 A.D., at the emperor's behest, Ricina was raised to the rank of colony with the name Helvia Ricina Pertinax in honor of his predecessor, Elvius Pertinace. The town was enclosed by a rectangular wall. In the center the settlement was cut by a road, nowadays covered by the modern road system. On the northeast side the street was flanked by a portico, overlooked by buildings identified as stores and warehouses (tabernae). On this main street axis the minor streets were grafted to form the typical urban grid of Roman cities. The main square-the Forum-is located almost in the center of the city where the best-preserved monumental building stands clearly visible: the theater. The remains of the Roman theater are today the most important testimony to the ancient city. The 72-meter-diameter theater had three orders of tiers and could seat about 2,000 spectators. It was probably covered with marble (reused during the Middle Ages) with Doric and Corinthian capitals. Still well recognizable are: the orchestra, cavea and the brick frontscene as required for the classical Roman theater. These remains give the idea of a thriving town of medium proportions. One of the most important finds is that of 150 stone blocks, almost all of them carved and decorated, which occurred in 1966-1967 during quarry work in the riverbed of the Potenza River, where they had been reused perhaps in medieval times as an embankment. They made it possible to reconstruct at least 6 funerary monuments of different types. The fragments are currently stored under a canopy near the theater. Given the area of the find and the presence of masonry remains, it is plausible to think that they came from an extremely close area, in which the second necropolis of the city must therefore be located.



1.2.1. Location of the site on the modern map (modern settlements, roads in the distance of 30-60 km).



1.2.2. View of the site.



1.2.3. Size of the area (in ha).

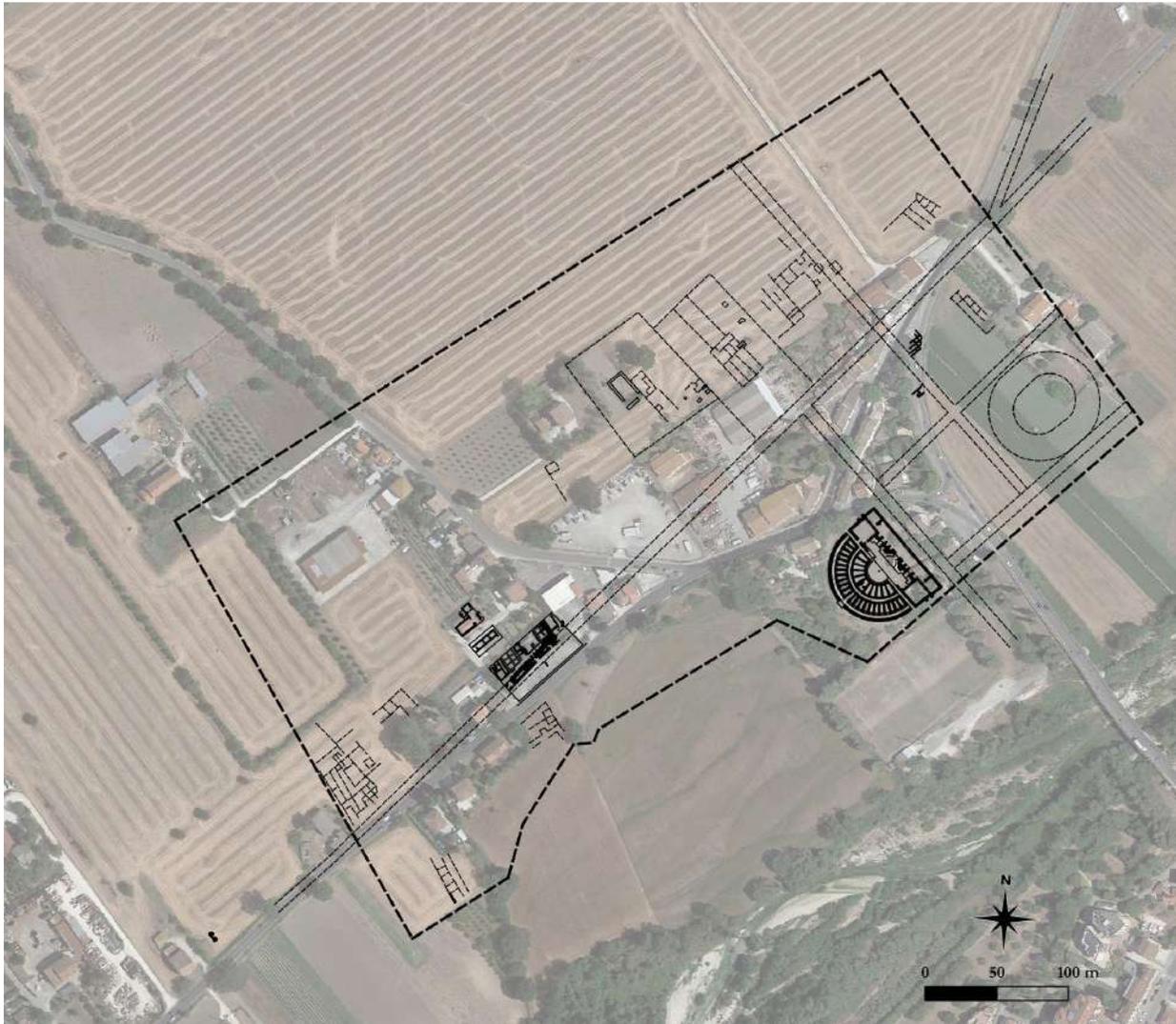
The size is 1,2 ha.



## 2. ELABORATION OF DOCUMENTS AND KNOWLEDGE FRAMEWORKS

### 2.1 ARCHAEOLOGICAL SYSTEM

2.1.1 Map/plan of the archaeological area with the historical structures and modern infrastructure.





### 2.1.2 List of visible historical monuments.

- Theatre
- Rests of funerary monuments

### 2.1.3 Short descriptions of each monument or group of monuments

- Theatre

The theatre is the only structure which is visible at present: it was completed and started to be active since the first half of the I century A.D. After the colony of Helvia Ricina Pertinax was created, the theatre underwent some major renovation work, as some architectural elements made of marble here displayed testify. Over the centuries, both weather conditions and human activity have caused the loss of the necessary data to deeply understand the overall structure of the theatre. The monument is 75.45 m wide and 62.55 m long; it consists of a cavea artificially elevated on a flat land. Finally, it is estimated to have been about 17m high. The cavea includes two rows of bleachers consisting of an even stonework, whose wall surface is made of brick. Eleven barrel-vaults open from the cavea itself, which introduced to the ambulatory, together with twelve doors with architrave, which gave way to the service areas. The vomitoria – steps facilitating access to the corridor – are today partially visible thanks to the supporting vaults on the left side. A covered corridor opened



where the central barrel-vault is, whose presence is today further signaled by a walkway. People coming from outside could directly access the orchestra through the corridor, which cut the theatre into two halves as well as some radials of the bleachers. The orchestra – the semicircular space between the cavea and the stage – is approximately 20m in diameter. It has a rectangular shape and is 40.40m long, despite being seriously damaged. The parascenia – the side spaces surrounding the stage – had a rectangular shape too and were jointed to the proscaenium by two doors called *versurae*. The orchestra also had side accesses delimiting the cavea and the two parascenia as far as the *frons pulpiti*, which was 1.20m wide and probably decorated on the outside. Between the *frons pulpiti* and the proscaenium there were square wells: they worked as a base for the beams supporting the *aulaeum* (the curtain). The *scaenae frons* is today visible for 9m on the right side of the central *exedra*. The central *exedra* has a semicircular shape and consists of a wall with some rectangular vaulted niches at the top. Two of them are still visible on the right side. The *postscaenium* closes the *scaenae frons* on the back.

- Rests of funerary monuments

In June 1967 the Archeological Superintendence of Marche, on the recommendation of Professor Valeriano Trubbiani, collected 150 blocks of stones from the course of the river. Most of them are limestone blocks emerging on the right bank of the river, close to the sand cave located 300 m west of the modern bridge connecting the two parts of the town Villa Potenza. They were reused to build a bank of the river itself. The presence of relief figures, of architectural elements and inscriptions made it clear that they were blocks belonging to some monumental building dating back to the Roman period and later put in the area of the Roman theatre; some of them were reassembled in monumental units following the principle of congruity as far as architecture, material and style are concerned. After some studies on the blocks, it was established that part of the material had originally belonged to funerary monuments. Specifically, the blocks have been related to four different types of monuments: *monopteros* on podium, *prostyle aedícula* on podium, *peripteral aedícula* on podium, enclosed sepulcher. Two more blocks of *trabeation* belonging to one funerary *aedícula* deserve to be mentioned, whose frieze is decorated with scrolls and *acanthus* leaves. These funerary monuments are to be linked to the ascent of local elites willing to show their prestige through the monumentality of their sepulchers. In February 1966, among the materials discovered and collected along the course of the Potenza river, besides the crowding element of an altar, there were also three epigraphs referring to a funerary context.



#### 2.1.4 Images of the most important monuments.



The theatre



Frieze of a funerary aedicula





Frieze of a funerary aedicula



Frieze of a funerary aedicula



### 2.1.5 Present condition of the monuments (visibility, quality, maintenance).

On several occasions since the 1990s, the site of the Roman theatre has been the subject of study, restoration, sorting and enhancement of the artefacts found in the area pertaining to funerary monuments by the Archaeological Superintendency and also directly by the Municipality of Macerata. Once the planned restoration was completed, the municipality, with the recovery of the building at the entrance to the area and dedicated to services, started a collaboration in 2003, with the pro loco Villa Potenza Association for the opening of the site to the public, previously limited due to the presence of restoration sites.

## 2.2 ENVIRONMENTAL NATURALISTIC

### 2.2.1 Description of geological and geomorphological characteristics as well as of botany and fauna.

The town of Ricina, on the basis of the monumental remains of public and private buildings, as well as the discovery of inscribed tombstones, must have covered over sixty hectares of land, mainly on the left bank of the Potenza river. The river, which was navigable at the time, favoured trade, as well as representing with its waters a source of wealth for the surrounding lands, which must have been extremely fertile. The archaeological area is therefore located in a valley, a humid environment with soil consisting mostly of clay and sand, where poplars and willows are the most common tree species. The environment around the ruins is heavily urbanised and includes the nearby hamlet and expanses of cultivated lands.

### 2.2.2 Classification of environmental problems (water, waste, etc.).

The archeological site is surrounded by an urbanized area. All around the area, there are private houses, as well as one Regional road, which is open to heavy vehicles too. This can constitute an element of disturbance to the visit and may represent a risk of noise pollution.

Considering its position near the river, floods represent an environmental risk.

### 2.2.3 Choices made for the conservation and enhancement of the landscape and the environment.

Recently, following flooding events in the region, the river banks were cleaned and consolidated.



## 2.3 HISTORICAL AND CULTURAL CONTEXT

2.3.1 Short description of the environment or landscape of the archaeological site (e.g. mountain, valley, plain, natural landscape, modern urban centre, etc.).

The archaeological area of Ricina is characterised by complex functional relationships with the settlement and infrastructure system surrounding it. The pattern of the archaeological structures is fragmented by the successive transformations that have occurred in the landscape. The historical site is separated to the north and south by the route of the Provincial Road, and from east to west by the intersection with the vehicular bridge over the Potenza river, connecting it to the town of Macerata. The hamlet of Villa Potenza has been built around the crossroads and the archaeological area is therefore surrounded by the structures described above. South of the Roman theatre, a wide area opens up on a slight slope to the northern bank of the Potenza river. In this area, which is particularly interesting from a landscape point of view, there is a sports field for playing rugby, with some facilities for competitive activities and it is also the spot for tourists to park their vehicles when visiting Helvia Ricina. Both in the village of Villa Potenza, and in the cultivated area north of the Roman site, as well as in the vicinity of the theatre itself, there are also listed buildings of historical and cultural interest. These are ancient fountains, villas, farmhouses, and historical monuments that testify to the ancient rural vocation of this landscape.

2.3.2 Historical meaning (e.g. chronology, historical background, historical development of the site, important historical events connected with the site, etc.).

As far as the end of Ricina is concerned, the town was definitively abandoned following the barbarian invasions, but due to the absolute lack of documents, it is impossible to define to whom this should be attributed or the date of the event. However, the ruins must have still been impressive in the 14th century and could have been inhabited if the Rector of Le Marche on 20 February 1343 granted the Guelphs of Macerata permission to take refuge and fortify themselves within the walls of Ricina against the Ghibellines. Subsequently, the Statutes of 1432 gave anyone permission to dig up stones and carry out demolitions, look for coins and extract lead and tin as long as they did not damage the crops, providing for fines for those who might oppose such devastation. In the 17th century, Pompeo Compagnoni drew a map of Ricina and put together a collection of epigraphs.

At the end of the 18th century, under the impulse of the rebirth of love for Antiquity, thanks to Neoclassicism, and then throughout the 19th century, historical-



archaeological studies on the territory of the Marca intensified. Essential for the history of the city is volume IX of the *Corpus Inscriptionum Latinarum* (CIL) published by Mommsen, which offers the first scientific edition of the Roman inscriptions of this place. In the first half of the 20th century, studies on Ricina developed mainly through the writings of the archaeologist Nereo Alfieri, who carried out a survey of the previous bibliography, an essential reference for the town's history. In the second half of the century, further studies by inspectors of the Marche Archaeological Superintendency and academics from the University of Macerata flourished.

## **2.4 SYSTEM OF FRUITION**

2.4.1 Opening of the area (free; closed with a fence, but always accessible; opening hours; only guided tours).

The archaeological site today is opened and managed on behalf of the City of Macerata by a volunteer association, and no guided tours are provided. Admission to the area is free and by reservation, which must always be made at least one day prior to the visit by telephone. The archaeological area is gated, so it cannot be visited without a reservation, but the monuments are visible from the adjacent modern road. The archaeological area is included in the Macerata museum network.

2.4.2 Access of the visitors to the entrance (pathway, cycling way, by car, parking place - capacity, public transport, access for disabled persons, etc.).

A free, unattended parking area for cars and motorcycles is available near the archaeological area. The parking area is not clearly marked. A short path leads from the parking area to the entrance of the archaeological area. To date, there is no urban public transportation stop in the vicinity of the archaeological site nor is there a marked bicycle route. Access for people with disabilities, especially those with walking problems, may be challenging considering that the path from the parking lot to the site entrance is not properly maintained.

2.4.3 Moving through the area (walking, cycling, possibilities for disabled persons, etc.).

The area has wooden footbridges that allow for walking tours. Visits by bicycle cannot be planned as the walkways are narrow. People with disabilities, especially those with walking problems, can hardly-unless with someone's help-visit the entire area.



There are no specific supports for physical accessibility

2.4.4 Information for visitors on site (e.g. information centre, information panels, reconstructions, ICT and digital tools, tourist info point etc.).

Information and explanatory panels in both Italian and English are available in the area. The panels are equipped with QR Codes that allow visitors to learn more about the history of the Roman city and to observe 3-D reconstructions of the monuments and findings. Thanks to a regional project, in collaboration with the University of Macerata, a 3-D model reconstructed was implemented inside the reception point based on the digital survey of the remaining structures of the theater. From this survey, a Virtual Reality application was developed, using the Oculus tool, which allows the visitor a complete visual, physical and motor immersion inside the ancient building. Unfortunately, the virtual system does not work unless it is operated by University staff who is not present in the area.

2.4.5 Describe your online outreach. Do you have your own website? Provide analytics. Do you have official social media pages (X, Facebook, Instagram, Twitter, YouTube, TikTok)? Provide analytics. Is your site featured in regional, local and national touristic websites? Provide analytics.

The Macerata Museum Network has a website where a page referring to information on the archaeological area of Helvia Recina (<https://musei.macerata.it/rete-museale-di-macerata/area-archeologica-helvia-recina/>) can be visited. There is some information about the history of the archaeological area, opening hours and contacts. The site is also mentioned with the same information on some local and regional sites.

2.4.6 Museum and/or exhibition place.

Before the Covid-19 pandemic, summer events and shows were organized inside the theatre. The fascinating location was the scene of a festival called "Recina Live", organized by the municipality of Macerata in cooperation with regional performing arts associations and the city's schools.



2.4.7 Public facilities (e.g. toilets, bar/restaurant, thematic/non-thematic children playground, place for special events, etc.).

The archaeological area is equipped with toilet facilities. People with walking problems can hardly use it - unless with someone's help. There are no restaurants, cafes, bookshops or play areas for children.

2.4.8 Pricing policies

Entrance to the site is free of charge, no further ticketing is planned as of today. The area is open by reservation. The admission can also be requested by groups accompanied by tourist guides, entry is in any case free of charge. Tourists would only pay the guide directly. The virtual system installed at the reception point does not work unless it is operated by trained staff.

2.4.9 Presence of infrastructures for physical and cognitive accessibility.

There are no tools for physical accessibility.

In redesigning the area in 2021, special attention was paid to the theme of accessibility. 3D PVA prints of the theatre and a funerary monument, information material provided in Braille, and the creation of a promotional, educational-informative video are intended to expand accessibility.

2.4.10 Presence of other structures potentially to be used for the visit.

There are currently no other structures available for the visit.

Identification of ICT and digital solutions FOR ARCHEODIGIT

For each topic pay attention to the following immersion levels:

- *High immersion;*
- *Medium immersion;*
- *Low immersion.*

One of the main goals to be achieved with Archaeodigit, in relation to ICT digital solutions, is to enable the tourist to experience a complete and detailed visit of Ricina with the aid of digital tools. The first step is to update and implement the explanatory panels already in-place and downloadable with the qr codes, implement inclusiveness through the creation of audio guides and explanatory videos.



2.4.11.1 Describe the ICT technologies/digital tools already used in the archaeological site.

In 2021, the Municipality of Macerata, in collaboration with the University of Macerata and the Soprintendenza Archeologia, Belle Arti e Paesaggio delle Marche (Marche Region's Department of Archaeology, Fine Arts and Landscape), has set itself the goal of reorganising the layout of the archaeological site of Ricina, reconnecting its functional and social relations with the settlement area of Villa Potenza. An important feature was the innovative site visit model involving the use of digital humanities and, in particular, virtual and immersive reality, made possible thanks to the collaboration between Macerata archaeologists, equipped with the appropriate skills in ICT, archaeological heritage valorisation and heritage management, and experts in architectural documentation and cultural heritage valorisation through the development of new museum applications from the University of Ancona.

### **VIRTUAL REALITY (VR GEAR)**

In particular, the scientifically elaborated 3D model of the theatre, the result of the archaeologists' surveys and study and the specific and innovative research of the University of Ancona, was the basis of a virtual fruition in the site itself, as well as a unique immersive experience through the use of a special oculus, placed in the reception room of the archaeological site. So the system foresees the use of hardware devices (VR gear, i.e. the oculus) allowing to see the reconstruction of the theatre and is site specific only. It is currently not available to the public because it requires the presence of qualified personnel to be used. When the project was implemented in 2021, the University of Macerata had made available its students to assist tourists in the use of this tool, to date this is no longer feasible and the tool is not used. The tool should also be implemented as it has become technologically obsolete, considering that great steps have been made since 2021 in the use of ICT tools related to the valorisation of cultural heritage.

Level of immersion: high

One of the main difficulties encountered was that it requested dedicated/skilled personnel to be used. Maintenance was also one other difficulty encountered.

### **QR CODE**

The solution consists of QR codes placed on panels explaining funerary monuments. QR codes contain 3d reconstruction of the funerary monuments, which allow visitors to contextualize the finds.



Designed for site-specific use, but they could also be accessed remotely.

It can be accessed with mobile.

Level of immersion: medium

Visitors accessing the site can always access this content. No dedicated personnel needed.

### **VIRTUAL 3D RECONSTRUCTION**

A special app has been created, which allows, via a personal device (smartphone), to see the 3D reconstruction of the theatre. To be used within the archaeological area.

Visitors accessing the site can always access this content. No dedicated personnel needed.

Level of immersion: medium

### **WEB SITE**

The archaeological site does not have a dedicated website, but the information is on the website of the Museum Network of the Municipality of Macerata <https://musei.macerata.it/rete-museale-di-macerata/area-archeologica-helvia-recina/>

A page dedicated to the most recent project is on the website of the Museums network of the Province of Macerata <https://www.archeologiamacerata.it>

Level of immersion: low

2.4.11.2 List the public/private authorities and bodies involved in ICT/digital activities and briefly explain their respective role, competencies and tasks.

The University of Macerata is involved together with the municipal offices in the development of digital and ICT strategies for the study, technical implementation and application of digital tools to the archaeological area, thanks to the professionalism (professors and students) of the degree courses of the Faculty of Archaeology, always in accordance with Archaeological Superintendency of the Marche Region, i.e. the body, dependent from the Ministry of Culture, in charge of the conservation and promotion of CH.

2.4.11.3 List the target groups (cfr. 3.2 and 3.7) and stakeholders to which ICT/digital activities are targeted and explain why they are the ones addressed. Also describe the methods and strategies used in the framework of ICT/digital activities and types of activities implemented for each target group. Finally describe the tools and instruments used in ICT/digital activities.



The main target audience for the implementation of digital tools are schools and university students because they are the ones who can and should be most passionate about the research, study and valorisation of archaeological sites. It is no coincidence that the main stakeholders supporting the Municipality of Macerata in the design of digital tools applied to the visit of the archaeological area are the University of Macerata and the University of Ancona.

The currently implemented ICT/digital solution (Virtual tour with VR gear and QR code) are targeted to:

- Families with children and local citizens. Ages from 40 to 65 + from 5 to 15 years. Digital solutions are often a good way to catch the attention of the youngest.
- Slow tourism: tourists attentive to the area and its landscape and cultural value, who seek authentic experiences in the places they visit, away from the circuits of mass tourism. Age from 40 to 65 years. Archaeological tourism is a form of niche tourism, well aligned to the slow tourism principle.

Tools and instruments used in ICT/digital activities are: VR gear and QR code linking to 3d reconstructions.

2.4.11.4 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints and threats) concerning ICT (SWOT analysis).

### **STRENGTHS**

- Despite the fact that the archaeological site is quite small, parts of the Roman theatre are still well recognizable: the orchestra, cavea and the brick frontscene. This offers great inputs for digital application (comparison between 3d reconstruction and current state of the theatre, digital immersion activities in the theatre itself etc.)
- Archaeological studies from University of Macerata are available

### **WEAKNESSES**

- Although the archaeological area is included in the Macerata Museum network, the site is not currently part of the Macerata tourism offer, i.e. the site is not included in the Tourist Macerata Pass (a cumulative ticket giving access to the main monuments/museum of Macerata). ICT solutions risk to be underused
- The archaeological site is managed by a volunteer association, which grants the visitors admission by reservation, which must always be made at least one day prior to the visit by telephone. This management system results to be not particularly flexible. Moreover, the managing volunteer association is mainly



composed by old people, who not always have the attitude and/or competencies to use digital solutions. Also for that reason, ICT solutions risk to be underused

## **OPPORTUNITIES**

- The site is located near an inhabited area and can be organized as an urban park dedicated to both Villa Potenza and Macerata
- Digital activities reveal to be more and more appropriate and effective to promote CH. Archaeology offers a great possibility for application of ICT solutions, which can help to overcome the fact that some part of CH once hosted in the site are now lost (eg. comparison between 3d reconstruction and current state of the theatre).
- The use of digital technologies applied to the enhancement of archaeological sites attracts and encourages the knowledge of new generations (school and university-age boys and girls) with respect to an intangible heritage that is one of our nation's greatest assets
- Digital tools can also be a resource for research and educational programmes.
- The Municipality of Macerata has launched a project entitled Innova Macerata, aimed at creating a study center and enhancing the cultural heritage of the province through digital tools
- The site is part of a network of parks and archaeological areas in the Province located from the sea to the coast, with great tourist potential
- The Municipality has recently started a project (called "Social Valley") to enhance the Villa Potenza area as part of the development process from the river area to the sea

## **THREATS**

- Digital solutions to be effective request trained staff devoted to their use. In our virtual reality tour with gear project, this was one of the biggest problems encountered. Staff from the volunteer association was never trained and visitors only occasionally could experience the virtual reality tour. This aspect needs to be treated as a priority when implementing the ARCHAEO DIGIT project. Training should be necessarily extended to the organization in charge of the management of the structure.
- The risk in using digital tools is to lose sight of the importance of the archaeological site itself. Digital tools should, in fact, be preparatory to bringing the public closer to a deeper and more passionate knowledge of the archaeological site and not the main purpose of the visit. Digital solutions should always be a tool not the final aim.



#### 2.4.12 Are there staff training projects on the use of ICT?

No. it is important to involve those who already take care of the archaeological area, such as the neighbourhood volunteer association that keeps the site open, to enable them to get to know more about the area in which they live and to be able to tell tourists about it, thus creating a virtuous circle that creates networking and engagement.

One important topic to deal with in the training activity is the definition of a clear methodology to identify the digital solutions to be implemented. The digital solutions should be:

- feasible for the specific archaeological site. When selecting the digital solution, it is important to take into consideration the concrete resources of the area (both human and financial ones). Technologies should be easy to use for the cultural operators and maintenance should be as light as possible. This was probably one of the weaknesses of the previous digital solution implemented at the archaeological site.
- clearly linked to the reflection on the uniqueness of a site. Starting from the assumption that digital solutions are only a tool and not a final aim, it should be clear from the beginning what the stories that the digital solutions are going to tell are. Therefore, the selection of the digital solution should always follow the identification of the identity of a place and should be a tool to convey the site's identity. Without a prior reflection on the identity of the archaeological site, digital solutions risk being ineffective and decontextualized.

## 2.5 ECONOMIC CONTEXT

2.5.1 Catchment area of the possible users/visitors (e.g. the proximity to urban centres or tourist locations).

The archaeological area of Helvia Ricina is located in the territory of the city of Macerata, a city that attracts tourists also from abroad in the summer, coming mostly to attend the performances of the opera season at the city's most representative monument, the Sferisterio. The area is also 30 minutes away from the seaside locations on the Adriatic coast, which attract thousands of tourists from Italy and abroad - especially from Germany - in the summer. One of the objectives to be pursued is to attract more and more tourism arriving in the region, which is often unaware of the vicinity of the archaeological site.



2.5.2 Describe your on-site public. Provide any available information on the segmentation of your visitors. How many of them are local? How many come from a different region or country? How old are they? Are they frequent consumers of cultural products (books, theatres, exhibitions, museums, etc.)? What's their degree of education?

In the last 3 years, approximately 1000 people per year have visited the archaeological site. The area of origin is mainly from northern Italy in organised groups and middle-aged British couples who have bought a holiday home in the area. International tourism coming to Ricina is mainly concentrated on those who have a holiday home in the area. As for the younger generation, there are many schools in the area that organise visits and university students arrive, especially from Macerata, which has a rich university tradition, having been one of the first universities to be founded in Italy (the first law course was held in 1290).

2.5.3 Area of potential interest for the economic consequences of the Park management activity (regional level).

The area of potential interest for the economic consequences of the site management activity can be represented by the Region. There are some efforts at the regional level to promote Marche as a tourist destination.

Moreover, along Potenza River, there are numerous archaeological areas which can be included in a common network (Septempeda in San Severino, Trea in Treia, Helvia Ricina in Macerata, Potentia in Porto Recanati). An old project called MUSE, dating back to the 2000s, had exactly this aim (unfortunately, this project was never finalized) demonstrating that Potenza Valley could represent a primary area of potential interest.

2.5.4 Accessibility by roads (primary, secondary), public transport, airport.

The site is mainly reachable by car. Even if the site is situated near one primary road (Provincial Road 361), the direct access to the site's parking is not well visible.

It is also possible to reach the site from Macerata by bus, getting off at the Villa Potenza – Helvia Ricina bus stop and from there you it is possible to reach the archaeological site with a 3-minute walk. The nearest airport is Ancona/Falconara (1 hour from the archaeological site), which is a small one and doesn't offer many destinations. The 2 biggest airports near Macerata are Bologna and Rome, both around 250 km far.



In general, reaching Macerata by public transportation is not so easy, since it is located on the hinterland, which is not well-connected to the main Italian destinations.

#### 2.5.5 The system of museums, monuments of cultural interest etc., in the regional level.

Marche Region can boast almost 400 museums, including public and private ones. There are different kinds of museums: archaeological, artistic, technical-scientific, historical and naturalistic museums, as well as those referring to rural culture, and crafts, or the specialized ones dedicated to different topics: hats, pipes, mail art, bicycles etc. Most of them are owned by municipalities, a sign of the deep bond with the territory, which is the characteristic feature of the region and which over the centuries has determined a homogeneous distribution of cultural heritage between the Apennines and the Adriatic Sea. 10 Museums are instead part and managed by the Regional Directorate for Museums of Marche, a decentralised structures of the Italian Ministry of Culture.

In addition to that, many monuments of cultural interest are to be noted at regional level: 70 theatres, more than 50 castles and fortresses, 500 squares, 200 Romanesque churches, 90 abbeys and shrines.

From an archaeological viewpoint, the Regional Law No 16/1994, establishing the Marche Archaeological System, identified 7 Archaeological Parks and 24 Archaeological Areas (Helvia Ricina is included in the last category).

#### 2.5.6 The system of tourist facilities (hotels, bed & breakfast, restaurants, etc.).

In the Region, there are 5.466 accommodation structures. Only 700 structures are proper hotels, confirming the prevalence of alternative tourist accommodation structures.

At the province level, there are 1017 accomodation structures, while in the Municipality of Macerata there are 65 structures: these are mainly bed and breakfast and other forms of alternative tourist accommodation structures, highlighting a consistent lack of more traditional structures (only 4 out of 65 structures are proper hotels).

At Regional level, there are 8.173 businesses in the foodservice industry.



## 2.5.7 Sustainable touristic ecosystem FOR ARCHEODIGIT

2.5.7.1 Describe the local/regional heritage policy/priorities, with regards to touristic development and activities, formulated or implemented in the protected archaeological area concerned, incl. any interrelation with other policies when related (sustainable development, protection of archaeological sites, tourism development, employment policy, etc.).

Priorities set by Marche Region are defined by the following legislative references:

- Regional Law 9/2006, coordinating tourist policies and activities, promoting Marche Region as a tourism destination and financing projects to promote and implement the tourist offer.
- Regional Resolution 13/2021, Tourism Regional Plan related to the period 2021-2023. The plan aims at promoting the creation of the Marche brand, of new tourism products and at renewing the tourism system through the following actions: the modernization of the tangible and intangible infrastructures of the historical and artistic heritage, the improvement of physical and cognitive accessibility of culture; the promotion of small villages and enhancement of historic parks and gardens, the promotion of religious tourism; strengthening the accommodation facilities, supporting the digital and green transition in the tourism and culture 4.0 sectors.
- Regional Decree 510/2024, 2024 Tourism Annual Plan: identifying the calls the Regional Authority is going to launch (actions aimed at the qualification of local reception services, the improvement of digital services and infrastructures, as well as actions aimed at promoting the development of the tourism offer and product in synergy with local authorities and tour operators, also through measures that encourage the deseasonalisation of tourist flows).

2.5.7.2 Describe the existing initiatives/methods/actions/projects currently/already implemented in your archaeological site aimed at valorising and promoting heritage as well as to strengthen touristic ecosystem (capturing the uniqueness of the cultural site and methods that defines the cultural identity of the location, combining tangible and intangible heritage).

The area surrounding the archaeological site is currently interested by 2 major projects:

- "Enhancement of the archaeological area of Ricina and redevelopment and relocation of the Villa Potenza rugby field" - NEXT GENERATION EU (2,74 Mln)-



Italian National Recovery and Resilience Plan”has been currently implementing in the area surrounding the archaeological site. The project aims to redevelop the surrounding area of the archaeological site of Helvia Ricina (Villa Potenza): more specifically, it aims to valorise its sport facilities, with a focus on the new rugby field, and the naturalistic area thanks to creation of cycle-pedestrian paths that will connect the Adriatic coast to Macerata, implementing the cycle paths connection of the sports areas as well as the archaeological one.

- The Social Valley project, led by the Municipality of Macerata (5,7 Mln, funded by ERDF and ESF), to be started soon, foresees big investments in the area where the archaeological site is located. In particular, it foresees a big renewal project of the nearby Exhibition centre (1 km from the archaeological site), the realization of one fluvial park (in the nearby Potenza River) and a creation of bike paths in the area, thus strengthening the opportunity for tourism in general and sustainable tourism.

2.5.7.3 Describe any new/innovative/potential initiative/activity that could have concrete possibilities to be introduced in your archaeological site to strengthen touristic ecosystem. Also indicate the main conditions and requirements for the concrete realisation of such new initiative(s), e.g. touristic resources, etc.

Two main initiatives to be introduced at the tourist level are:

- inclusion of the archaeological site in Macerata local tourist offer, creating a connection with the current CH manager, using the already existing channel to promote the archaeological site
- creation of a network with other archaeological sites in the area, to create itineraries and events dedicated to specific targets in addition to thematic openings.

One important activity to carry out is the clear identification of the identity/uniqueness of the archaeological site, the site's main features, and what makes the site unique compared to similar and nearby sites. This should be the prerequisite for all the activities, including the joining to existing or new networks.

One other important condition is the interest of single area to cooperating for the creation of a larger network, as well as the support and cooperation of bodies that operate at a higher level (ex. Regional level).



2.5.7.4 List the target groups and stakeholders that should be involved in the framework of new policies and approaches for sustainable tourism activities and products in connection with archaeological site. Also explain why they are the ones to be involved.

- Local/Regional authorities and agency: to be involved in the promotion of new tourist activities/products
- Local citizens, especially the elderly, young people, families with children, less educated persons: they represent the new target group to be reached. Aim of the ARCHAEODIGIT project is indeed to attract these categories by making the visit to archaeological sites an appealing experience. Their point of view will be heard and taken into consideration in the frame of local hubs
- Businesses and SME operating in the CH sector: to be involved in the promotion of new tourist activities/products
- Tourist boards, associations, foundations: to be involved in the promotion of new tourist activities/products

2.5.7.5 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) of archaeological area in relation to sustainable tourism activities and products (SWOT analysis).

### **STRENGTHS**

- The area is located on Villa Potenza urban centre, which is surrounded by the countryside, making the area particularly apt to slow tourism
- The Social Valley project, led by the Municipality of Macerata (funded by ERDF and ESF), to be started soon, foresees the creation of one fluvial park and a creation of bike paths in the area, thus strengthening the opportunity for sustainable tourism
- Near the archaeological area there is one big exhibition centre (which is now undergoing a huge renewal process), which is to be the point of reference in the promotion of many local intangible assets (e.g., food, agricultural products, medicinal herbs and traditions), the same that are to be integrated in the definition of the cultural identity of the area, to identify the uniqueness of a place
- Investments are being made in the area. The Social Valley project foresees also public works on the area: the improvement of the access route to the area, the renewal of the lighting as well as the fencing of the area.
- Marche is an emerging destination from a tourist point of view. The positive tendency of the tourism sector – temporarily interrupted due to the pandemic – was confirmed for year 2023.



## **WEAKNESSES**

- The above-mentioned investments are foreseen to be implemented in 2026.
- The archaeological site is often underestimated and well-known only among specialists. Although the archaeological area is included in the Macerata Museum network, the site is not currently part of the Macerata tourism offer, i.e. the site is not included in the Tourist Macerata Pass (a cumulative ticket giving access to the main monuments/museum of Macerata).
- The management system of the area (by one volunteer association) results to be not particularly flexible.
- The area is not well served by public transportation.
- Lack of links with archaeological sites in the area.
- Necessity to promote exchange between sector operators, as well as to organize training courses for young people in order to offer more appealing tools for fruition.

## **OPPORTUNITIES**

- The volunteer association, managing the area, is composed of passionate people. If duly involved in the project and valorized, that could be an asset in terms of touristic growth of the area.
- School activities at the archaeological area are usually appreciated. Schools represent an important target to be further reached.
- Current ways of preservation and valorisation of archaeological areas still rely on elitist practices, able to attract essentially archaeology lovers and school classes. New approaches, along with the use of digital solutions, may represent an important way to attract new tourists.
- Creation of a network with other archaeological sites in the area, to create itineraries and events dedicated to specific targets in addition to thematic openings.
- Growth possibility for foreign tourism

## **THREATS**

- The current management system is characterized by a certain level of informality, which may represent an obstacle for professional management of the area.



### 2.5.8 Are there staff training projects linked to economic and tourism development?

No staff training projects linked to economic and tourism development are currently being implemented.

One important topic that needs to be deepened with the training is the importance of clear identification of the identity/uniqueness of the archaeological site, the site's main features, and what makes the site unique compared to similar and nearby sites. The training should ease a reflection on the identity of the archaeological site. Practice exercises should be included along with the theoretical aspect.



### 3. MANAGEMENT PLANS

#### 3.1 Is there an "archaeological project" that underlines the reasons underlying the creation of the Site?

There is not. In a master plan developed by the University of Macerata as part of the DCE PlayMarche Project, there is a draft of archaeological Project. This draft will be the basis of the Archaeodigit Project.

The object of this project is to develop an action plan that will enable a project to be carried forward in the medium and long term.

#### 3.2 Make a general presentation of the organisational structure regarding planning and management of archaeological site. Also list and briefly describe the different bodies involved in the planning and management, including their role, competencies and tasks. Briefly also describe the relationship with the national level.

*Pay attention to the following professional figures:*

- A. Management;
- B. Promotion and communication;
- C. Architecture and construction;
- D. Hosting and catering services.

At the moment, the archaeological area of Villa Potenza is managed on behalf of the municipality of Macerata by a volunteer association that mainly takes care of the openings. There are no other professional figures exclusively dedicated to the planning and management of the area.

A. Management activities are organised and coordinated by the administrative office of the Macerata Municipality's culture office and mainly consist in managing contacts with the association and arranging acts to provide financial resources for the day-to-day management of the area.

B. There is no coordinated management of the promotion and communication of the area, the contracted entity in charge of managing the Macerata museum network has implemented a page on its website with the main information on Helvia Ricina.

C. Legislation on cultural heritage in Italy is very stringent, especially with regard to archaeological and architectural heritage projects. For this reason, the Municipality of Macerata must always relate with the Soprintendenza Archeologia, Belle Arti e Paesaggio - a national agency with branch offices all over the country - to receive the



authorisation to act. To date, the Municipality of Macerata has an agreement in place with the University of Macerata, which has the Faculty of Cultural Heritage within it. There are currently no projects planned on Helvia Ricina.

D. There is no hosting nor catering services in the area.

**3.3a Do you have a Management Plan for your archaeological site? In such case describe the Management Plan (priorities, vision, management objectives, expected results, existing and potential opportunities and problems).**

There is no management plan implemented for the archaeological site at the moment. There is a master plan developed by the University of Macerata as part of the DCE PlayMarche Project, which places the Ricina area within a network of archaeological parks located along the Potenza valley. This framework will be the basis of the Archaeodigit Project

**3.3b In case there is no Management Plan, are management objectives/priorities/activities set out in any other specific document (e.g. policy document). If yes describe them.**

Every year, the Municipality of Macerata renews the agreement with the association of volunteers who manage the openings of Helvia Ricina. The agreement describes the tasks of the association in exchange for a monetary contribution. In addition to the openings, the association takes care of any minor maintenance to the area that may be required. There are no specifications in the agreement regarding the management of the archaeological area.

The Management Plan created as part of the PlayMarche project provides some objectives that we want to implement within the Archaeodigit Project.

The project for the valorization of the archaeological area of Ricina provides indications on different levels to attempt to govern the complexity of functions and signs present in the area.

A Zone A is identified in which the archaeological structures are present and in which a further area is planned for the expansion of the excavations.

For the buildings located above this area, the redevelopment of the same is envisaged.

In order to give adequate evidence to the archaeological pre-existences, it appears necessary to also pay attention to the level of street furniture.



From this perspective, the master plan identifies two new areas in which to install a reception information point, both connected to neighboring areas to be used for parking.

At a morphological and structural level, the project involves the reconversion of the current rugby sports area south of Potenza: a space which, due to its quality and symbolic value, cannot fail to be connected to the Roman theater and the entire archaeological area. The dismantling of the rugby field and its conversion into a Music and History Park is planned. The theme of the park can be integrated with the presence of archaeological structures both from a symbolic and functional point of view.

On the west side, towards the bridge, the creation of the access gate to the Ricina Park is planned.

The project plans to enhance the Potenza riverfront.

The master plan takes into consideration only as a remote and long-term hypothesis the closure of the vehicle road on the Potenza bridge and the creation of an alternative route.

### **3.3c If there is no Management Plan, what do you think are the main objectives of the current activity?**

X Preserving systems with a specific archaeological interest

X Promoting scientific research

X Promoting public fruition and public service through access policies and raising awareness of the value of Cultural Heritage

X Promoting enhancement and educational-recreational activities with the use of ICT tools

X Planning and structuring of governance models

X Modelling a sustainable economic development

### **3.4 Level and extension of cooperation/coordination among local actors both in the setting up of the Management Plan/policy and in the management. Who are involved, how and to what degree (process/type/method of involvement, activities).**

There is no communication in regards to projects concerning the setting up of a Management Plan among the various local actors at the moment. Municipality, Superintendence, Province of Macerata and University of Macerata collaborated in the development of the Master Plan developed as part of the PlayMarche Project



**3.5 Level and extension of involvement of the public in the setting up the Management Plan/policy and in the management of sensitive and protected areas (who, how and to what degree is the public involved). Describe the participatory framework (process of involvement, activities).**

There is no plan regarding the involvement of the public in the setting up of the Management Plan/policy and in the management of sensitive and protected areas at the moment.

**3.6 A GIS is normally used for management activities. If so, how?**

The GIS system is not used for management activities but mainly to map the various areas of the city. It has therefore not so far been specifically used for the archaeological area of Ricina.

**3.7 Describe the opportunities, strengths, challenges and needs as well as the problems (weaknesses, constraints, threats) in relation to coordination and coordinated management policies and plans (SWOT analysis).**

**WEAKNESSES**

- Currently, there is no strategy for the valorisation, sustainability and organization of the archaeological site
- Currently, the level of involvement of all the stakeholders – fundamental to correctly implement a management plan – is still quite low.

**OPPORTUNITIES**

- The development of a management plan for the area would make it possible to involve all stakeholders and get useful feedback from each one for the valorisation of Helvia Ricina and a sustainability and organisation of the area that is not there at present.
- The development of a management plan would be extremely useful for attracting tourism and creating a virtuous regional network with neighbouring archaeological sites, thereby also attracting regional, national and European funds.

**THREATS**

- The plan's implementation comes with the risk of not having enough professionalism dedicated to it after the first step.



### **3.8 How do you evaluate the economic and financial sustainability of the site.**

To date, the site is not financially virtuous, as entry is free of charge. There is no income and expenditure plan to provide a more detailed answer to the question. The future vision would be to include an entrance fee, which together with a management plan would make the area more tourist-friendly.

### **3.9 Methods and strategies are applied to monitor economic impact results and evaluate and review them**

*For the methodology and for more detailed information see:*

<https://eum.unimc.it/it/catalogo/808-common-sustainable-governance-model-for-archaeological-parks>

As there is no management or financial plan at the moment, it is not possible to answer the question.



## 4 CONCLUSION

Having taken into account all the above STRUCTURING FACTORS, summarise the major problems, constraints and threats affecting your archaeological site as well as challenges and opportunities, analyzing the following aspects:

### 4.1 Characterizing factors

Describe the components and relationships that characterize the system of your archaeological site, giving it an identity that distinguishes it from others.

- Identity is the element we need to work on. To make the site "unique" and to distinguish it from similar archaeological sites, it is necessary to find these elements that can make it attractive. This must be done within ARCHAEO DIGIT project. The idea is to start from the analysis of the identity part, identify the elements of uniqueness and work on these to find the right storytelling. Once the identity elements have been identified, the most suitable technologies will be chosen. Technology is a tool to support storytelling. It is not the final aim. This point is very important, to avoid using technologies in a way that is decontextualized from the narrative and the visit.
- The contribution of the University of Macerata – Archaeological Dep. is important. Archeology Students and researchers have contributed to the valorization of the area over the years. In the project, their role will be important not only for training but also for scientific supervision.
- Currently the theater is used as a stage for religious re-enactments. Before Covid19 it hosted a "Ricina Live" festival for several years. The aim is also to make the theater part of the city's cultural life by joining the live performances circuits.

### 4.2 Qualifying factors

Describe the elements or conditions that can give your archaeological site a certain quality, importance or value today without changing its structure or characteristics.

- The site is part of a large regeneration project for the area. The project called "Social Valley" involves strengthening the access infrastructure to the site, a light design intervention and a system to reduce noise pollution.



- HR could also become part of the valorization activities of the FAI (Italian Environment Fund). The FAI enhances the assets of the various territories by using young volunteers as "guides". HR could become part of the "FAI days".
- The presence of the theater is an element to be enhanced as it can be used for theatrical performances and concerts. In the Marche region every summer a theater festival takes place inside the Ancient Theaters (TAU). HR could enter the circuit and host this type of activity.

### 4.3 Critical situations

Describe the more or less acute set of elements or conditions of degradation or de-qualification or alteration of your archaeological site.

Elements of degradation:

- The presence of the road and heavy traffic cause noise pollution.
- The area is located within a peripheral urban area. Private homes overlook the theater. Visitors can see the homes and this constitutes an element of disturbance to the visit and also affects the decorum.
- The access areas must be improved with facilities for disabled people.

### 4.4 Challenges and opportunities

Indicate challenges and opportunities of your archaeological test area.

#### CHALLENGES

- 1) Make the site "captivating". The biggest challenge is defining the "identity" aspects of HR and finding the most appropriate digital tools to "narrate" the site and make it touristically attractive.
- 2) The site must be included in the city tour and must be connected with the other archaeological areas present in the province of Macerata.
- 3) The Macerata community must consider the site as part of its cultural heritage. In recent years, thanks to volunteers, the site has been visitable and has often been used for small events. The challenge is to open it as much as possible to the city and make it open to visitors, also by becoming a place hosting city events (music and theatre).

#### OPPORTUNITY

- 1) Rethink the archaeological site by focusing on its identity;



2) Find technological solutions capable of making it more attractive;  
train volunteers and operators to improve the visit's quality for visitors



## GENERAL CONCLUSIONS

### Characterization and quality of archaeological parks

Archaeological pilot areas presented in the analysis differ in size (from 1.2 ha to 39.2 ha), type of site (underwater, land) and some other characteristics (urban or rural environment, management, level of development, position etc.) but they have many common features and similar moments as well as the great need for further development of sites.

The archaeological parks always incorporate the unique archaeological sites that are at the same time historically important points - at the regional, national and European level. Archaeological sites are extremely important for the socio-economic development of tourism and can contribute to numerous aspects of the economy and society. They attract tourists, encourage the local community development, create jobs, promote cultural awareness and contribute to sustainable development. The popularity of archaeological sites as tourist attractions indicates that it is about a valuable source of income, but unfortunately this is often not accompanied by reinvestment in the proper management, in order to ensure the protection of the site and enable further use of this resource. Archaeological sites are fragile resources and inadequate site management will result deterioration or even destruction of the site and related social, historical, educational and economic potential.

The areas of the parks have not been built up in modern times, so the preservation of the heritage is very good. The remains, even those still covered with earth are very informative. Research, usually of a multidisciplinary nature, is still ongoing or its continuity is planned.

The parks are situated in a naturally attractive environment, sometimes in the middle or near protected natural areas. Helvia Ricina is situated in urban environment. Sites on Croatian territory are located on the coast (Fulfinum-Mirine and Trstenik), while the Archaeological Park of Sepino and Helvia Ricina are located on the mainland. Some of them are far from larger modern settlements, the others in the immediate vicinity of urbanized centres.

All the presented archaeological parks are located in tourist and traffic developed areas or in the areas with rich tourist potential. The regions with archaeological parks are rich in the monuments of historical and cultural importance. Thus, the parks are already or have the possibility to become an important part of the cultural network in the region. Also, tourism related to archaeological sites can help promote cultural awareness among visitors.



They can be very well or slightly less connected to the social environment. The links are mainly visible e.g. in the organization of cultural events in park areas, the significance of which may exceed the very objectives of the parks.

Each site has its own specific character that requires adjusted approach to activities related to valorisation and promotion within tourist ecosystem.

## **Critical situations**

The most evident critical situations are related to the ancient building preservation: the monuments are easily subject to environmental degradation.

Some risks are associated with the relationships the park has with the local context and its socio-economic dynamics which could eventually proceed towards a growing “isolation” of the park. The parks should be placed in a context of deep economic, social and cultural changes in the regions where they are positioned. Rich heritage in the surrounding regions is often characterized by a strong fragmentariness and it is not sufficiently integrated into the systems of education and tourist offer.

Critical situations in most parks are unresolved property issues (a part of the land is owned by private persons – Sepino, Mirine-Fulfinum, Trstenik).

A critical element is also the absence of standardized rules and procedures for the extension and enhancement and in some cases also the unclear jurisdiction of the institutions that manage the parks or could be the future managers.

Lack of comprehensive and quality management plans is a common problem. Only Fulfinum-Mirine has existing management plan, which needs to be revised. Lack of permanent and quality financing program represents another problem as well as the poor interest of stakeholders.

There are some problems concerning the accessibility of the parks and individual monuments, the lack of public transport and insufficient infrastructure in the parks. Environmental degradation in the immediate vicinity of the parks could be regarded as another possible threat, especially in Croatian sites which are in vicinity of industrial plants. Most of the parks are near major tourist centres, but there is a lack of quality connections and unification of the offer with the regional cultural heritage, there is no guided tours and only the archaeological park Sepino has an entrance fee. As for ICT solutions, there are some variants in certain parks, but they do not work well due to the lack of trained staff and contracted maintenance, as well as their poor management. There is a lot of room for improvement in this domain. Digital solutions to be effective request trained staff devoted to their use. In all pilot areas there is a significant lack of staff trainings, especially regarding ICT solutions.



## Challenges and opportunities

Archaeology has great potential from a developmental point of view. It can contribute much to academic, economic growth, socio-cultural development, political awareness and reform. Archaeological sites can fuel economic investment in local areas through tourism and can foster social collaboration. Additionally, through the insight of their integration within their natural environment, they can hint at potential solutions for environmental crises. Hence, archaeology is a fruitful and often untapped resource for sustainable development. All the pilot areas have the possibility to become important parts of bigger scope with a system of connected heritage monuments, that are outstanding in the national and European perspective. They have excellent prerequisites for the development of cultural tourism, educational programmes and the connection with outdoor activities. The local differences and peculiarities should be incorporated into the park programs.

Development of management plans is the most important task as well as the inclusion of various local stakeholders and staff training. The continuity of research represents another precondition for the long-term development of the parks and their integration into the present-day life. The reorganization is needed for enhancement of the parks, that not only of the areas that are strictly inserted in the parks, but also of certain local contexts.

Guaranteeing sustainable tourism in pilot areas implies the achievement of financial and non-financial objectives. These objectives of archaeological sites differ due to their advocacy of guarantee sustainable tourism development. Economic sustainability of heritage resource has been mainly related to the generated revenues, benefits, and visitors' arrivals, whereas social sustainability has been mostly referred to visitors' satisfaction, site's reputation and prestige, and the improvement of residents' standard of living.

Also, innovations and new ICT solutions improve service differentiation, leading to higher levels of visitor loyalty and satisfaction which in result increases economic and social sustainability (revenues, awareness, sponsorships, donations, educational purposes). Also, market orientation approach that takes into account visitors, donors, competitors and inter-functional coordination, effectively influences tourism sustainability. Therefore, enhancement of market orientation has big role in boosting tourism sustainability of pilot areas.

