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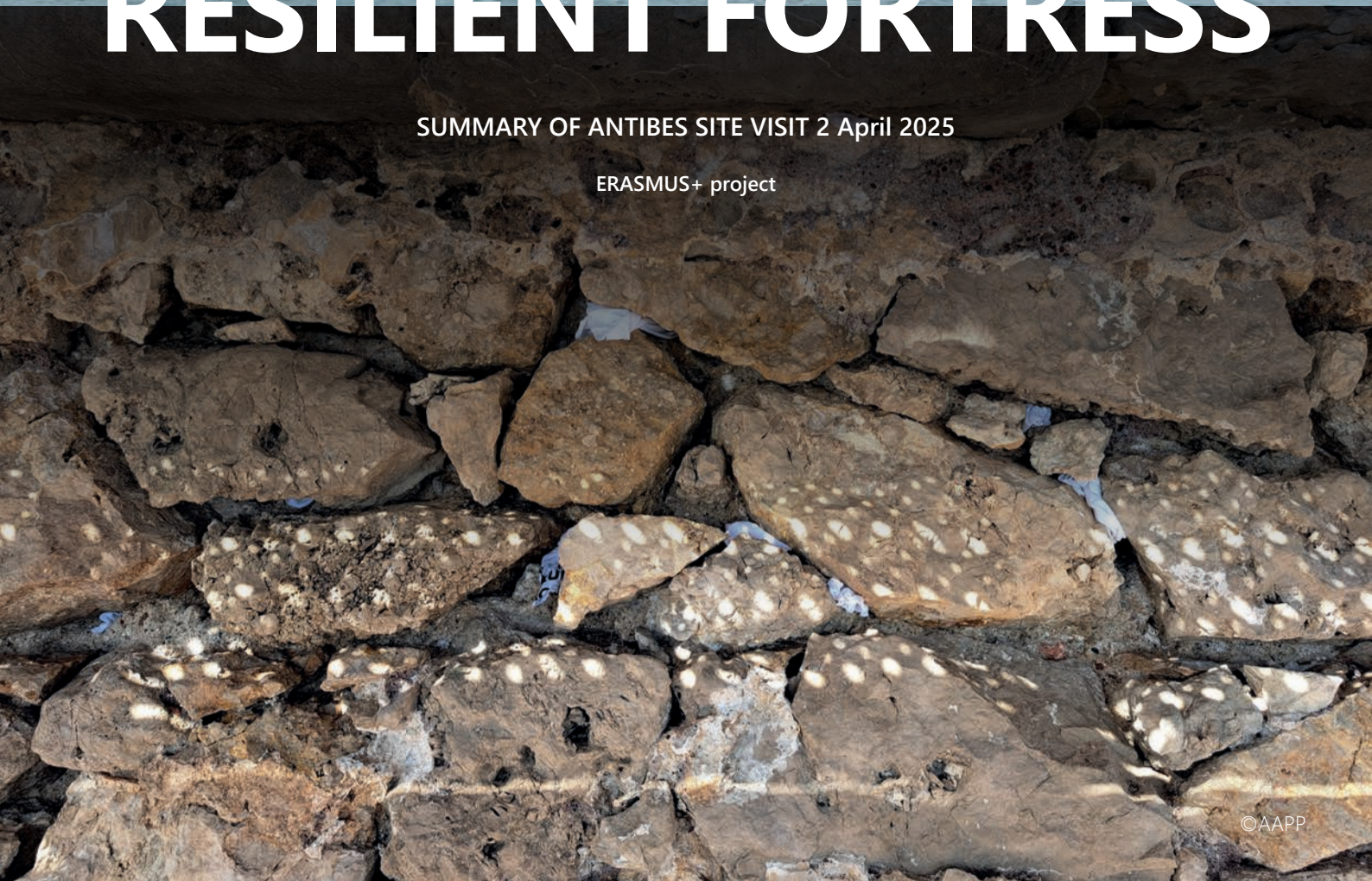
EUROPEAN PROJECT ON FORTIFIED LANDSCAPE FACING NEW THREATS

# RESILIENT FORTRESS

## SUMMARY OF ANTIBES SITE VISIT 2 April 2025

ERASMUS+ project



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Resilient Fortress, Erasmus+ project partners organizations.

Erasmus+ project named Resilient Fortress is designed for upskilling professionals facing the challenges of climate change and the increasing need of environmental responsibility in the context of fortified heritage.

Project partners and case studies are chosen by the geographical location of the sites and by the quality of their restoration, conservation and repair projects. The nine months project is divided into four activities: Suomenlinna Summer School (2–4.9.2024), Antibes Site Visit (2.4.2025), Mont-Dauphin Learning Session (3.4.2025) and Naarden Exchange Session (5–7.5.2025). The outcome of Resilient Fortress -project is environmentally responsible guidelines, that will motivate other professionals to gain an alert attitude towards climate change and open mind to transform old routines to green skills.

# Summary of Antibes Site Visit

*Baptiste Grandais, Tuija Lind, Tiina Koskenniemi, Xingchen Wang*

The activity in the City of Antibes was organized by Vauban 21 – CCI Nice Côte d'Azur and Atelier d'Architecture Philippe Prost. It consisted of site visits to best practice examples – Port Vauban with bastion Saint-Jaume restoration and Fort Carré's heritage and site studies.

The Antibes site visit started with a gathering at the well-guarded gates of Port Vauban, a natural harbor rebuilt many times during two thousand years. Once the gates opened, the group was led to a Yacht Club where Didier Ochs, the director of Port Vauban presented the development of Port Vauban project accompanied by Pauline Boniface communication manager responsible for the 80 annual events that take place in Port Vauban.

Aerial view of the Bastion St Jaume in Antibes. ©Port Vauban

The ongoing major transformation project of the marina – including 15 new buildings, renewal of all quays (3740 m), pontoons (4750) and the whole harbor infrastructure – started in 2020. The port proposes 1500 berths from 5-meter boats to 160-meter yachts. The works are planned in phases, starting with the most crucial services for yachts by the east dike and the old port.

Opposite the port area, the second phase of the projects delivered in 2023 in front of Fort Carré is a new service building for workshops with a repair dock. The new building is cleverly adapted to the site so that, being long

and low in the landscape, it blends into the quay structures and does not rise to cover the wall behind and the promenade path. The future workshops enable craftsman to continue offering their services inside the port's perimeter.

Responsibility and environmental protection including the sea have been major goals in Port Vauban project. (1) The port can accommodate hydrogen-powered yachts, the abundant use of fresh water for washing the yachts is reduced, collection of floating plastic (six robots) and underwater rubbish is systematic and new waste collection points have been implemented in a controlled manner. In 2021 Port Vauban obtained a certificate of Clean Harbor Proactive in Biodiversity (Ports Propres Actifs en Biodiversité).

The director Catherine Seyler of Atelier d'Architecture Philippe Prost explained the background to the development of the port. The plan is based on the winning proposal in a competition in 2016. The competition was a comprehensive development project for the public service delegation in cooperation with the business community, contractors, the city and banks.

The background for the Port Vauban is the urban planning effort to develop the area and create new paths to connect the old city center, the marina and the Fort Carré.

This major goal belongs to the second phase and will be proceeded next year. New staircases link the port to the pedestrian walkway around Fort Carré, providing a link to the old town in the future. Catherine Seyler underlined the fluent cooperation between all project participants being part of projects success.

For the question whether the carbon footprint of the project was calculated, the answer was negative, but according to Seyler reducing the carbon footprint was and is always the goal in the methods and choices of material. Gaëlle Chériaux, head of corporate social responsibility at CMN revealed their way to calculate visitors carbon footprint. CNM counts the hours spend in the site in relation to travel days, and the equivalent percentage of the carbon footprint caused by transportation.

The new structures for the development of the port have been designed by Atelier d'Architecture Philippe Prost as well as the restoration of existing structures like bastion Saint-Jaume. Before the works on the bastion run by work conductor Jérôme Lainé from construction firm SMBR – Société Méditerranéenne Bâtiment et Rénovation, an inventory of all living species in the bastion was made by herpetologist Grégory Deso from AHPAM – Association Herpétologique de Provence Alpes Méditerranée and ecologist Thierry Reynier from Reynier Environment. The two specialists, commissioned by the port, presented the Resilient Fortress -audience how they dealt with ecosystem preservation before, during and after the mid-17th century walls were repaired.

(1) More information: leportvauban.com/en/environmental-policy

New structures for the development of the port, Bastion Saint-Jaume. ©GBS

Geckos were given the opportunity to come back to the wall and continue nesting in the structures by leaving gaps and crevices and adding provincial canes between the stones. During the site visit, Grégory Deso and Thierry Reynier demonstrated the success of the operation: the inhabitants of the wall were back. The two specialists published in 2024 a research based on DNA dietary analyses and video recording proving that the European leaf-toed gecko (Euleptes europaea) eats flowers and is in consequence a pollinator.

Architect Baptiste Grandais from Atelier d'Architecture Philippe Prost (AAPP) presented the restoration work of the Bastion Saint-Jaume, where the starting point was to preserve the authenticity of the site and the living. In conjunction with the herpetologists and the SMBR company, he presented the implementation of a restoration protocol to integrate the habitats of living geckos into the masonry as part of the worksite. The wall repair at Bastion Saint-Jaume has included the renewal of the building parts that have suffered from erosion, so that the old intact structure and material have been preserved. Hydraulic lime has been used as filling and joint mortar in the renewed areas, and the old one with a higher cement content has also been preserved. In addition, the repair-restoration project of the walls considers modern requirements as well. For example, an elevator was built to allow people with disabilities to walk on the chemin de ronde and the upper part of the bastion and have a overall view of Antibes seashore. This promenade will eventually link up with the old lighthouse, creating a new historical path for the old town.

After the repair work, it was discovered that water is eroding the wall structure at least in one area, a "cave" was formed inside the bastion. This area is planned to be repaired separately by filling it in. The dangerous erosion could only be detected by submarine inspections carried out on the port. The bastion is subject to strong waves and according to Yann de Carné they lost the scaffolding twice, found later the bottom of the sea. A report on the restoration work is in progress in Prost agency.

On the other side of the harbor lays the 16th century Fort Carré dominating the bay. The fort is situated in Natura 2000 zone, surrounded by a stone fence, a moat and a counterscarp. Above the latter, an old walkway, build with hazardous concrete slabs and asphalt, was under renovation during our visit. The ongoing works were presented by Andrea Vitteri, in charge of heritage for the city of Antibes and Baptiste Grandais. This project consists of transforming the old path to a landscape walkway from where you can see both the port (overlooking the 160 meters long workshop complex) and the Fort Carré. Some of the excavated stones are reused for altering the counterscarp wall and some stones and concrete slabs are crushed to make a solid walking surface. The path is built with only recycled material found in situ. A small size excavator was one of the conditions for choosing the contractor. The one kilometer long, four meters wide walkway with a wheelchair-suitable lane in the middle, is going to cost 500 000 €. These works are the first works realized on the basis of recommendations of the preliminary study for the Fort Carré lead by AAPP in 2022–2023.

Fort Carré d'Antibes. ©CCI

Inside of Fort Carré. ©GBS

After climbing the serpentine walkway up to 26-meter hill and entering the first gate, the curator of Fort Carré Fabien Vinciguerra presented the historical stages and current situation of the fortress. The impressive circular courtyard from 16th century has retained its original character, and the surfaces show signs of age. The archives reveal the date of 18th April 1548 related to a compensation to be paid to a house destroyed by accidental gunfire from Fort Carré. On the round courtyard with a dwell is situated a small chapel, which suffers from a leak in the upper platform destroying little by little the authentic wall paintings. The fort is open to the public as a tourist attraction, but the city of Antibes has goals to put it into more active use.

Baptiste Grandais presented a thorough preliminary study of Fort Carré and the surrounding site, as base for the future planning. The study consists of three volumes (2022-2023) with an updated survey of technical damage and regulations with historical and architectural analyze of both Fort Carré and its peninsula, as well as the feasibility studies of both entities. The approach of the study is a "site monument" approach, which shows the interdependence of the site and its surrounding and consider the built heritage and the living heritage as equitable part of the site. The study proposed different approaches by phase from emergency repair to so called total restoration. The challenge is the physical relation of the fort with its surroundings – and organizing a new entry.


Three volumes of the study. ©AAPP

Antibes Site Visit participants.

List of participants at Antibes Site Visit the 2 April 2025

Sampo Ahola / Governing Body of Suomenlinna (FI)
Laurent Alberti / Centre des monuments nationaux (FR)
Philippe Allée / Centre des monuments nationaux (FR)
Pauline Boiret / Centre des monuments nationaux (FR)
Pauline Boniface / Port Vauban, Antibes (FR)
Ger Copier / Stichting Monumentenbezit (NL)
Gaëlle Chériaux / Centre des monuments nationaux (FR)
Rafaël Deroo / European Federation of Fortified Sites (EU)
Grégory Deso / Association Herpétologique de Provence Alpes Méditerranée (FR)
Isabelle Fouilloy-Jullien / Centre des monuments nationaux (FR)
Baptiste Grandais / Atelier d'Architecture Philippe Prost (FR)
Tiina Koskenniemi / Governing Body of Suomenlinna (FI)
Jérome Lainé / Société Méditerranéenne Bâtiment et Rénovation SMBR (FR)
Tuija Lind / Governing Body of Suomenlinna (FI)
Petri Lyytikäinen / Governing Body of Suomenlinna (FI)
Federica Marulo / University of Groningen (NL)
Didier Ochs / Port Vauban (FR)
Miia Perkkiö / Governing Body of Suomenlinna (FI)
Thierry Reynier / Reynier Environment (FR)
Catherine Seyler / Atelier d'Architecture Philippe Prost (FR)
Jeroen van der Werf / Stichting Monumentenbezit (NL)
Fabien Vinciguerra / City of Antibes - Fort Carré (FR)
Andrea Vitteri / City of Antibes - Heritage (FR)

Erasmus + project

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Antibes Site Visit

PORT VAUBAN ANTIBES - CÔTE D'AZUR | Groupe CCI NICE CÔTE D'AZUR

Resilient Fortress Project Partners

AAPP / ATELIER D'ARCHITECTURE PHILIPPE PROST /

THE GOVERNING BODY OF SUOMENLINNA

Stichting Monumentenbezit

CENTRE DES MONUMENTS NATIONAUX

EFFORTS european federation of fortified sites

university of groningen

Fastighetsverket

STUDIO ARCHITETTURA Arch. Florenzo Meneghelli

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