Réseau des sites majeurs Vauban

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Fortified Futures

Climate resilience and partnerships in World Heritage fortifications

EFFORTS european federation of fortified sites

VLAAMSE VESTINGSTEDEN

FORTIFIED FUTURES
A joint initiative by EFFORTS Europe & the Vauban Network

Content

How is climate change transforming the relationships between public authorities and private partners involved in the conservation, management et reuse of fortified heritage ?

I. Context of Fortifications of Vauban, a serial World Heritage property

II. Adaptation requires new forms of expertise, innovation and cooperation

III. Towards a new governance model for climate resilience ?

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I. Context of Fortifications of Vauban, a serial World Heritage property

The Vauban Network: a World Heritage laboratory

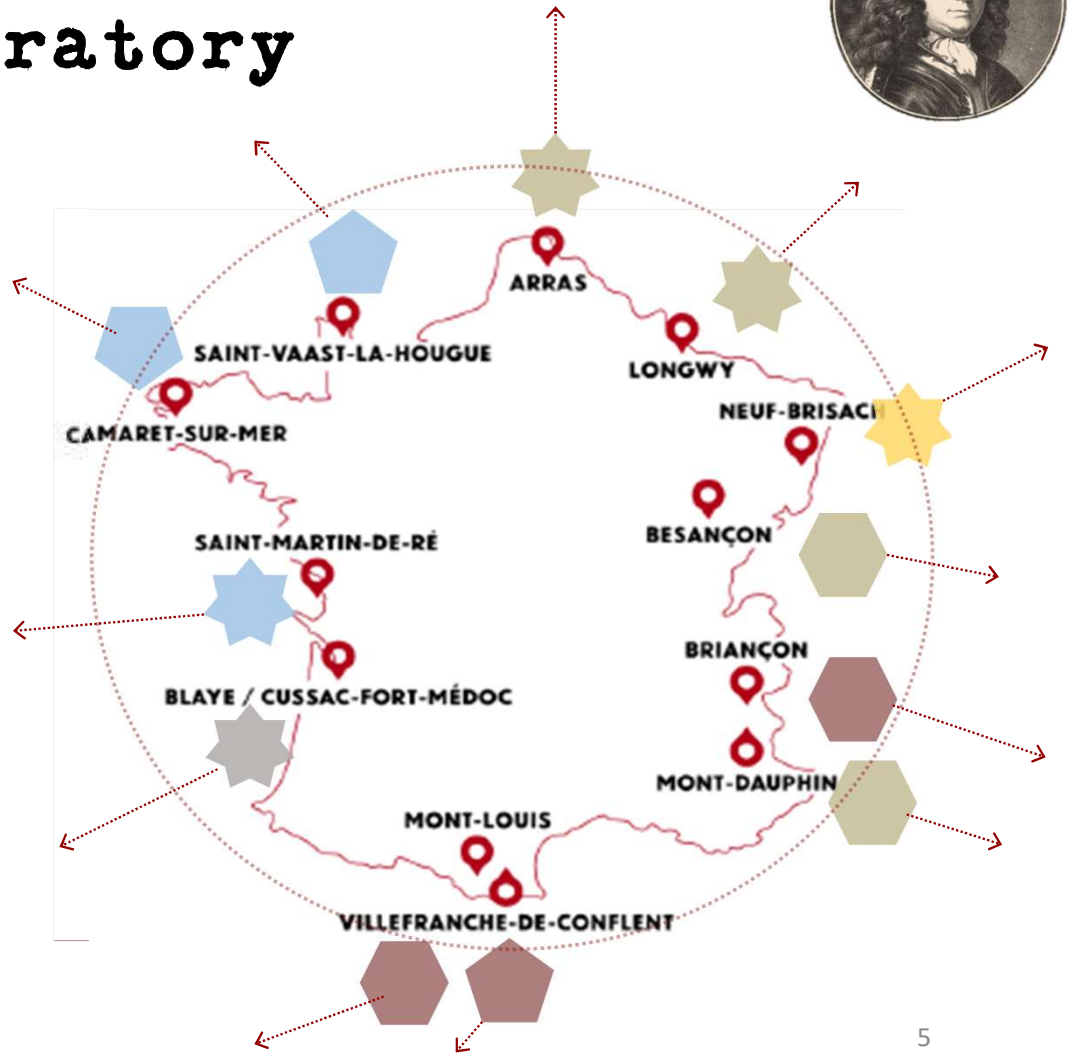
Why is the Vauban Network a relevant case study ?

- 12 fortified sites : "Fortifications of Vauban"
- World Heritage property
- coastal, mountain, urban and rural contexts
- predominantly public ownership
- presence of private owners, operators and investors

Associative stewardship for coordination

A common challenge

➢ How can climate adaptation be reconciled with the preservation of Outstanding Universal Value?



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Climate change affects the entire fortified ecosystem

Observed impacts

Hazard	Example
Flooding	Tatihou Island
Storms	Camaret-sur-Mer
Ground instability	Blaye
Freeze-thaw cycles	Briançon
Urban heat islands	Neuf-Brisach
Biodiversity changes and humdidity	All

First observation

Climate change affects not only monuments but also all actors involved in their management.


LONGWY


BRIANÇON


CAMARET-SUR-MER


ARRAS


BESANÇON


BLAYE/CUSSAC-FORT-MÉDOC


SAINT-MARTIN-DE-RÉ


SAINT-VAAST-LA-HOUGUE


VILLEFRANCHE-DE-CONFLENT


MONT-DAUPHIN


MONT-LOUIS


NEUF-BRISACH

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Who are the private partners of the Vauban Network ?

Beyond the traditional PPP model

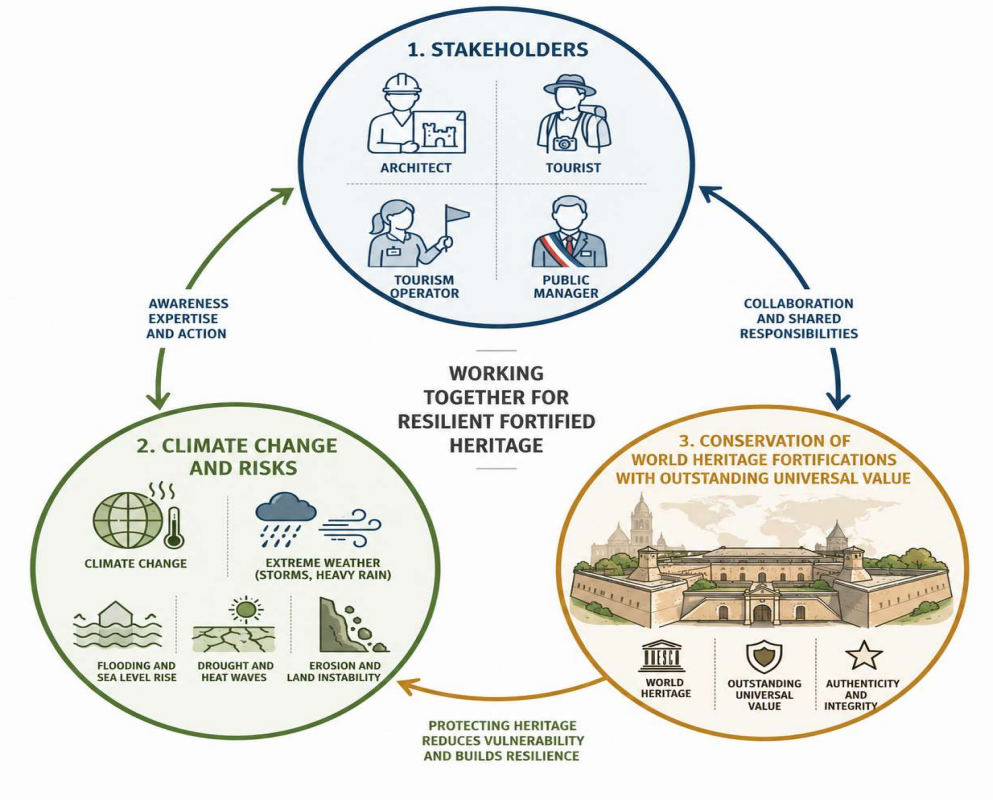
The Vauban sites rarely rely on formal PPP contracts.

Yet many private actors are involved :

- Property owners, inhabitants
- Developers
- Heritage architects
- Engineering firms
- Insurance compagnies
- Tourism operators
- Sponsors

Key question

➢ Can these actors become climate-resilience partners?



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II. Adaptation requires new forms of expertise, innovation and cooperation

Climate adaptation requires new expertise to preserve Outstanding Universal Value

Increasing needs

- structural shape : several sites still lack structural shape
- moisture management
- drainage systems
- vegetation control
- preventive maintenance

Emerging questions

- ➢ Do local authorities have sufficient expertise? Public agents need training
- ➢ Are specialized companies numerous enough? Specialized craftsmen are busy
- ➢ Who pays for increased monitoring and maintenance?

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Innovation and discussion for conservation

New climate challenges require private sector-led innovation

- bio-based materials
- digital diagnostics
- climate modelling
- research programs

Key tension

- How far can innovation go without affecting authenticity and integrity?
- How can innovation be integrated into public procurement procedures ?
- Innovative principles must be accepted by the project management authorities and by the French government responsible for commissioning the works.

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Climate adaptation, biodiversity versus heritage preservation ?

The Tatihou case
Protection of the sea wall versus biodiversity conservation.

More broadly
Climate adaptation increasingly generates conflicts between:

- heritage conservation
- biodiversity protection
- landscape preservation
- renewable energy deployment

Question

- Who arbitrates these competing objectives?
- How do private partners take up this question and participate in this reflection?

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Adaptive reuse: a climate strategy?

"The most sustainable building is often the one already standing."

Examples

- Suzzoni Barracks (city of Neuf-Brisach)
- Biomass heating project (citadel of Arras)

Opportunities

- Restoration of monument
- Reduced carbon footprint
- Reduced vacancy
- Economic revitalisation

Risks

- loss of heritage significance
- inappropriate interventions
- pressure on Outstanding Universal Value

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Tourism operators and inhabitants as climate actors

Examples

Besançon:

- Restaurant serves local products

Blaye:

- sustainable mobility with boats

Arras:

- Main Square Festival sustainability measures

Key question

➢ Can tourism contribute to resilience while preserving heritage values and increasing revenues ?

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III. Towards a new governance model for climate resilience ?

The French National Climate Adaptation Plan (2024)

A major policy shift
For the first time, heritage is explicitly included.

Measure 5: Protecting natural and cultural heritage from climate change impacts.
Main actions
- climate risk mapping
- prevention plans
- preventive maintenance
- training
- climate standards
- pilot adaptation projects

But…
➢ No dedicated funding mechanism has yet been identified
➢ How are local authorities and private partners involved in the process?

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Who pays for climate adaptation?

A new category of heritage costs

- monitoring
- preventive maintenance
- climate studies
- adaptation works
- post-disaster repairs

Yet responsibilities remain unclear : Who should bear the cost?

- owners?
- operators?
- investors?
- insurers?
- public authorities?

Hypothesis

➢ Climate change is creating a new governance challenge rather than merely a conservation challenge.

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Integrating climate strategy into partnerships

Existing tools

- procurement contracts
- concessions
- long-term leases
- occupancy agreements
- sponsorship agreements

Current limitation

Climate resilience is rarely included as a contractual objective.

Emerging question

Should climate resilience become a governance criterion in heritage partnerships?

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Integrating climate strategy into partnerships

- **Increase awareness among residents and decision-makers of the importance of fortifications, their history and heritage values, and the impacts of climate change.**
  Examples : Climate Fresk workshops, conservation-focused visits, interpretation centre/exhibition space.
- **Strengthen and expand preliminary studies and assessments.**
  Actions: historical and heritage studies, state of conservation, visitor and use analyses, climate change impact studies, risk assessments.
- **Establish collaborative platforms bringing together public and private stakeholders to exchange knowledge and develop innovative approaches to research, the protection of Outstanding Universal Value, climate adaptation, and the sustainable reuse of fortifications.**
  Actions: risk management planning, development of new practices, adaptive reuse programs for fortifications.
- **Promote a holistic and systemic approach to fortification management.**
  Actions: climate adaptation master plan, sustainability certification.

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Towards collective heritage resilience

Three unresolved questions

1. How can adaptation be reconciled with Outstanding Universal Value?
2. How can climate risks and costs be shared fairly?
3. How can public-private partnerships evolve from service delivery to resilience governance?

Fortified Futures

- A European platform to exchange practices, test solutions and develop new partnership models.

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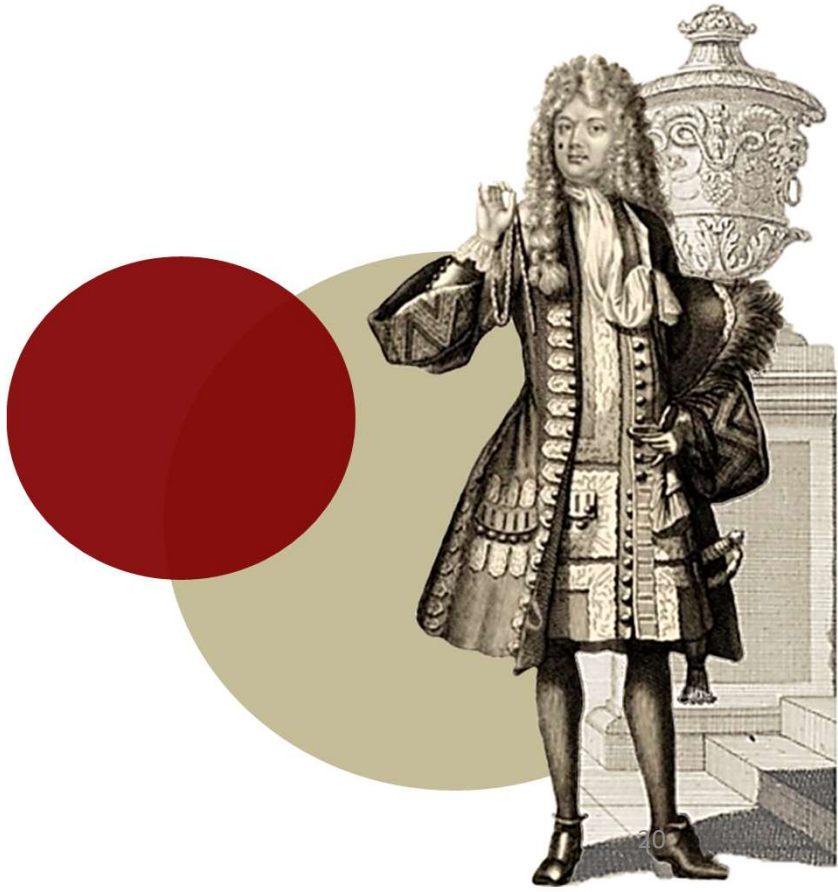

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