The Higher National School of Architecture and Landscape of Bordeaux (ENSAP), a *School of Architecture* + *World Heritage* in its rich territory

The Higher National School of Architecture and Landscape of Bordeaux is at the heart of the Nouvelle-Aquitaine region, where it radiates outwards.
The largest region in continental France is one of the most richly endowed parts of the world in terms of Unesco World Heritage sites list:

The 'Prehistoric sites and decorated caves of the Vézère valley' (criteria i and iii, 1979),
The 'abbey church of Saint-Savin-sur-Gartempe' (criteria i and iii; 1983),
The 'Pyrénées-Mont Perdu' mixed site (criteria iii, iv, v, vii and viii, 1997),
The 'Routes of Santiago de Compostela in France' (criteria ii, iv and vi; 1998; 30 sites in the Nouvelle-Aquitaine region),
The 'Fortifications of Vauban' (criteria i, ii and iv ; 2008; the Blaye citadel, the Paté and Médoc forts at Cussac-Fort-Médoc, the enclosure and citadel at Saint-Martin-de-Ré),
'The architectural work of Le Corbusier, an outstanding contribution to the Modern Movement' (criteria i, ii and vi; 2016; Cité Frugès site in Pessac)
The 'Cordouan Lighthouse' (criteria i and iv; 2021).

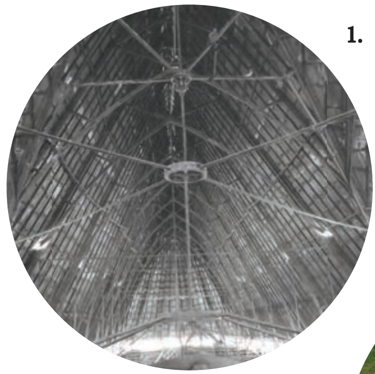
Finally, two exceptional urban and landscape sites are in the immediate surroundings of the school, the site of 'Bordeaux, Port of the Moon' (criteria ii and iv; 2007) and the 'Jurisdiction of Saint-Emilion' (criteria iii and iv; 1999).

The 'Jurisdiction of Saint-Emilion' WH site

The site known as the 'Jurisdiction of Saint-Emilion', inscribed on the UNESCO World Heritage List in 1999, is a vast area covering 7,847 hectares (with a buffer zone of 5,101 hectares) that has been shaped by viticulture for many centuries. A rich built and landscape heritage has developed here, between the Dordogne valley and its northern slopes. Seven municipalities (ca. 5,000 inhabitants) surround the small town of Saint-Emilion, which gave its name to the area. The municipality encapsulates a vast number of issues relating to architectural, urban and landscape heritage, land use and practices, and environmental and social changes: a declining and ageing population, excessive tourist numbers seasonal nature of commercial activity, transport and mobility, intensive exploitation of resources, exceptional craft skills, remarkable and well-known historic heritage, heritage and contemporary buildings that receive little media attention, and the high vulnerability of cultural and natural heritage to environmental changes (disruption of the water cycle, mineralisation, unsanitary conditions, fragility of buildings, ground movements and underground collapses, over-exploitation of natural resources, soil depletion, agricultural pollution, damage to biodiversity).

Optional course: *From conservation to intervention with the existing*

(Master in Architecture, year 1 and 2, 40 hours), February-May 2026



1. **Contextual and theoretical content: History and tools for working with existing buildings.**

   Heritage and ecological emergency + The notion of heritage and monumental intervention policies, from yesterday to today (ENSAP Bordeaux).

2. **Immersion: Experiencing vernacular building practices**

   Workshop at the Guyenne medieval building site (La Lande-de-Fronsac, Gironde, France)

3. **Getting hands-on: Diagnosing and working with an existing**

   Water in Saint-Emilion (Gironde, France)

   The exercise took place in two phases: the first involved conducting a diagnosis based on four axes (historical, structural, sanitary and environmental, regulatory and preliminary planning) ; the second phase focused – at the students' discretion – on designing an intervention or prescribing regulatory frameworks.

Teacher:
Samuel Drapeau, lecturer in History & Architectural Cultures
Students involved:
Emilie Audouin, Amélie Bridier, Dila Cicek, Lucia Cordoba Iglesias, Nina Dessales, Laora Durand-Bigorie, Pedro Egana Cardarelli, Léna Fremanteau, Soha Guitouni, Clément Jégo, Manon Joos, Victor Langarica Sarabia, Carolina Lona Garcia, Claire Martinez, Maya Mesnier, Paraskevi Synodaki, Elsa Villier, Myrsini Vlachou, Manon Vié

The concept of translation

The concept of 'translation' was examined in light of its dual meanings: **to translate and to shift**. Firstly, the focus was shifted to reorient heritage attention from the values of the cultural landscape recognised for its OUV, and to place greater emphasis on translating the interlinks connecting humans to the spheres of nature and culture (according to the French anthropologist Philippe Descola). The environmental and built dimensions of heritage (landscape, city, building) were mobilised in order to translate the complexity of a 'socio-natural' cultural landscape. A diagnosis was based on this, the first eight panels summarising it.

Several themes and scales were investigated:
- observing the problems and constraints associated with the presence of water.
- analysing the ability of architectural and urban scales to adapt to water-related constraints in heritage environments.
- protecting and ensuring sustainable access to water to safeguard the long-term viability of the World Heritage site.
- recognising and supporting the heritage of water.
- examining the principles of conservation and intervention in heritage-listed built and urban environments in light of needs related to water issues, and reviewing management frameworks.

Building on this baseline, in a brief exercise in project intentions (four draft boards each) the **theoretical language of heritage** was re-examined, with the aim of evolving the grammar of conservation, moving from a protected heritage to a living legacy: by giving even greater consideration to uses and practices (in all their complexity, both beneficial and destructive), by promoting 'doing' and social ecosystems, to foster community cohesion and a reconnection with the landscape. Finally, the theme of water provided an opportunity to reconsider this vital element, which has become invisible within the UNESCO site. To translate its absence or its heritage invisibility, despite its problematical omnipresence, is to take care of the details that make a living, authentic and sustainably protected site.

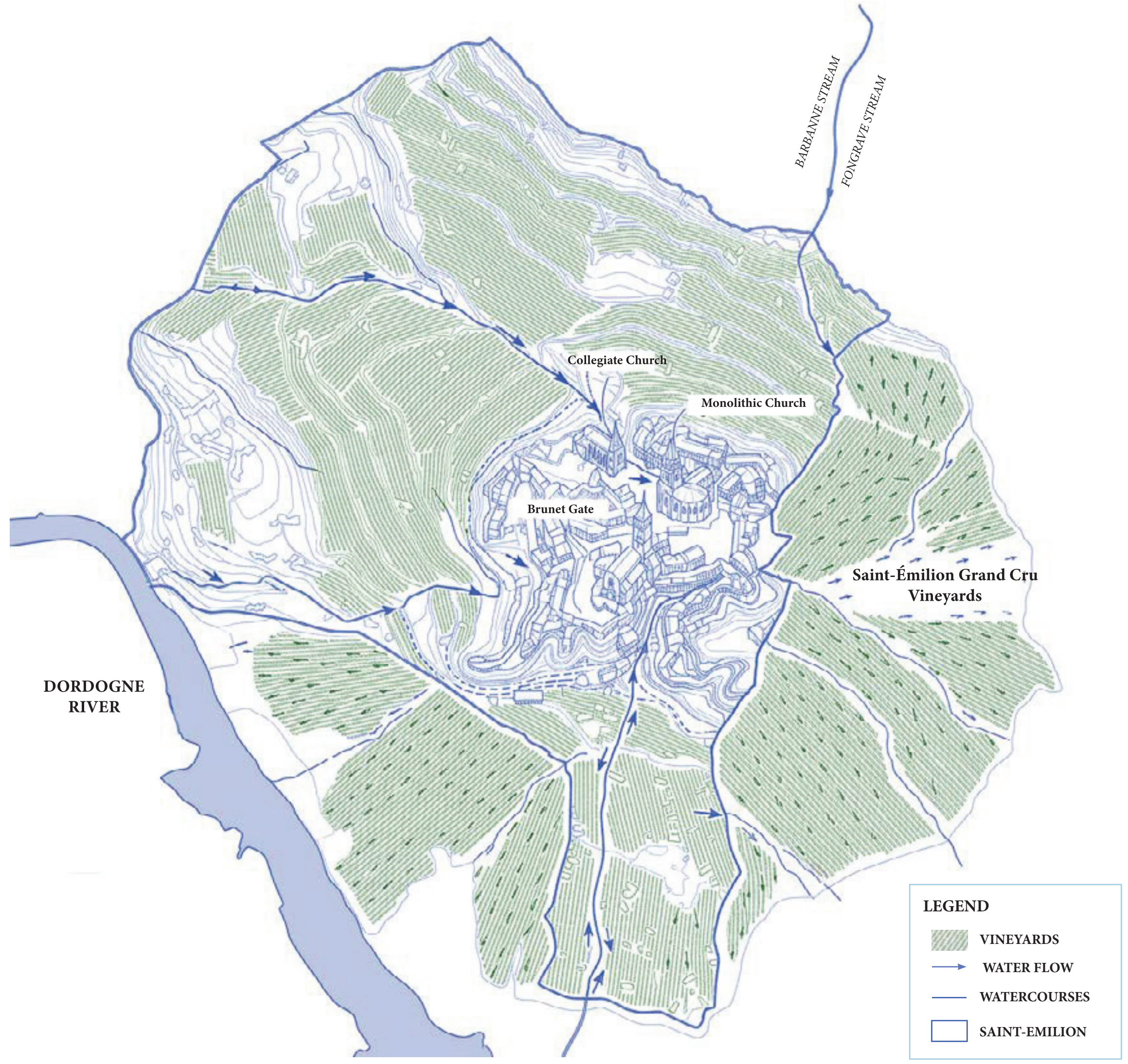
DIAGNOSIS

Saint-Émilion, a unique example of water management.

A landscape shaped by water

Plan of the Saint-Émilion territory and its rivers

Axonometric view of the watercourses flowing through Saint-Émilion and land use



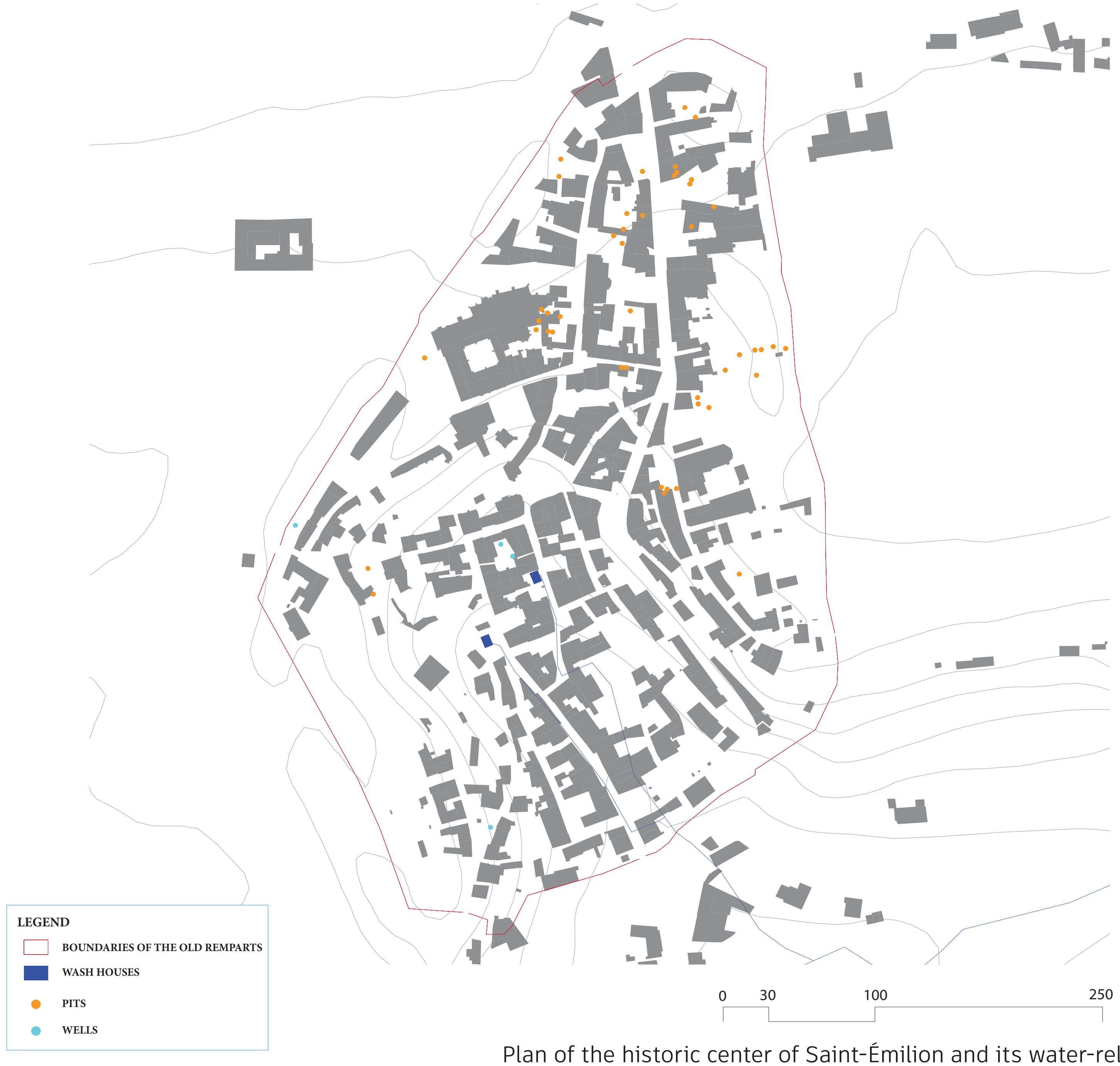
Timeline of Saint-Emilion's history with water

1st–4th century	8th century	12th century	16th century	18th century	19th century	20th century	21th century
Gallo-Roman town (Le Palat) Introduction of viticulture by the Romans	The arrival of the hermit Émilion The founding of the medieval town	An independent jurisdiction of Saint-Emilion under the authority of the kings of England.	Religious Wars Some religious buildings were left to fall into disrepair and were damaged.	The town's economy is being revitalised by the wine trade	Industrial wine production	Establishment of the Saint-Émilion AOC (1936) and inscription on the UNESCO World Heritage List (1999)	Commitment to sustainable viticulture and the preservation of heritage, A major hub for wine tourism
Tapping of limestone springs		**1199 First watermill**		**Wells in the Upper Town**	**Development of the two wash houses**	**La Barbane, the northern boundary of the Saint-Emilion wine-growing region**	**2001–2007 PPRI SIEAG and Atlas des Patrimoines**

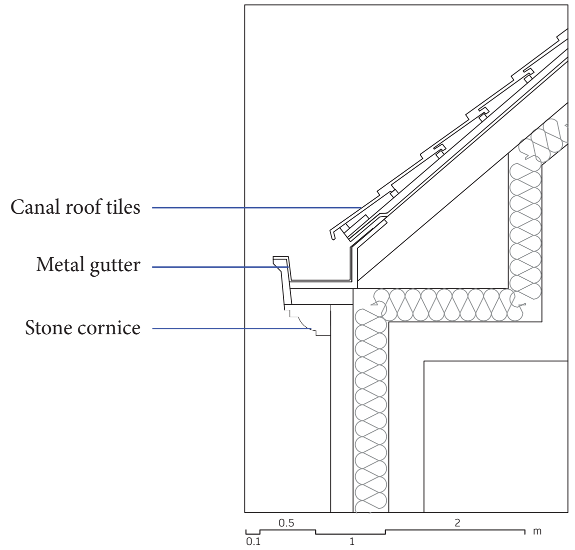
LÉA CHAMBAUD _ LÉNA FREMANTEAU _ SOHA GUITOUNI _ MAYA MESNIER _ ELSA VILLIER (2026)

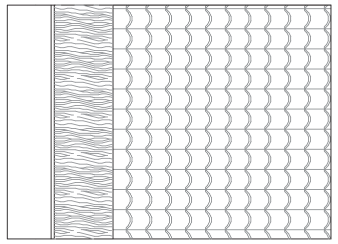
Saint-Émilion, a unique example of water management.

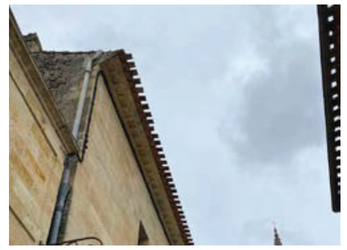
Water management at the architectural scale



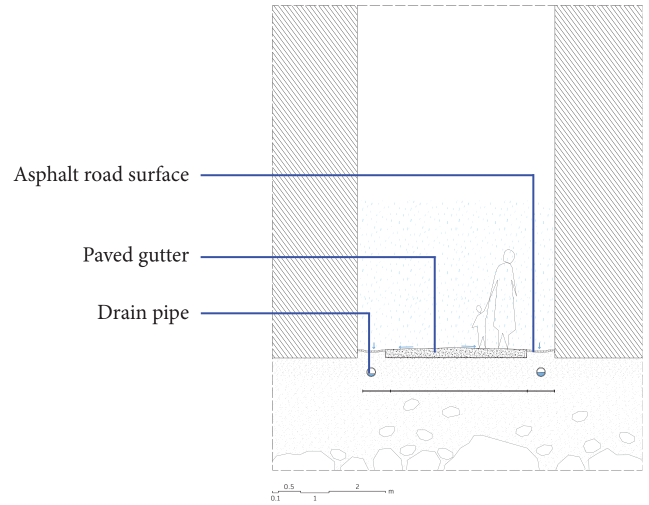
Plan of the historic center of Saint-Émilion and its water-related infrastructures





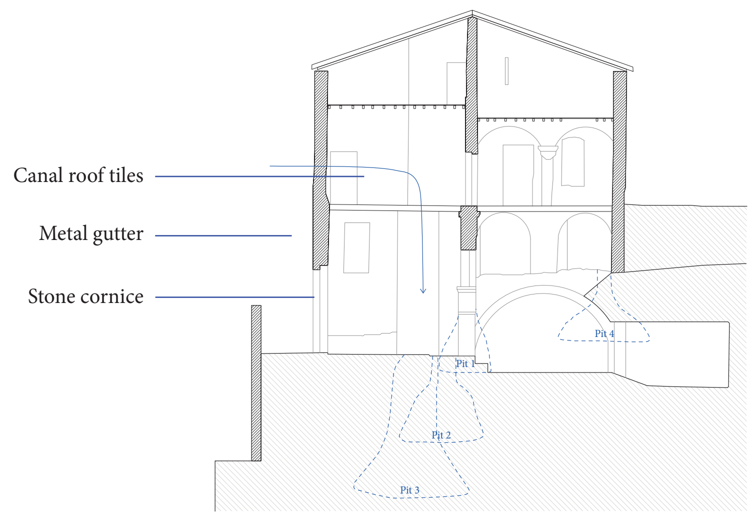


Roof section of a house on Rue de la Petite Fontaine



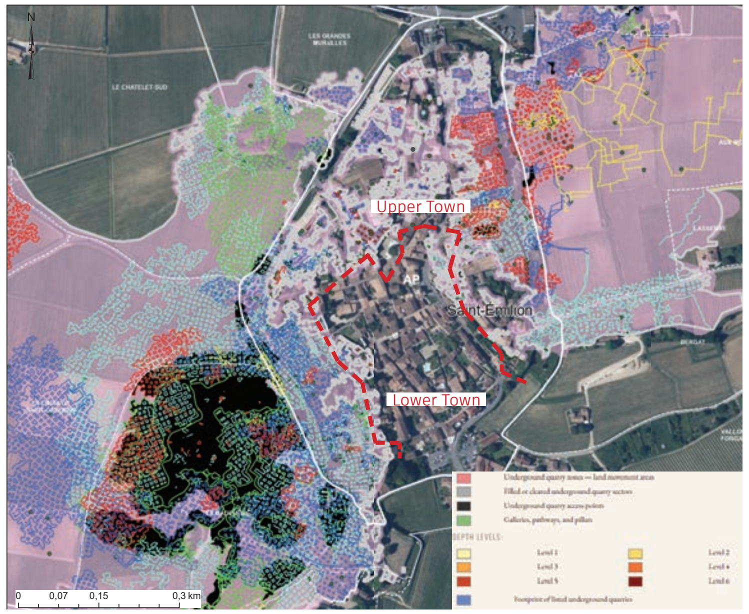
Section of the Rue de la Porte Brunet

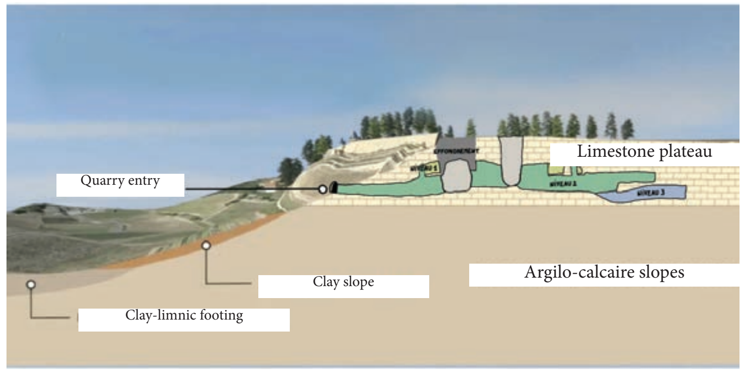
Section of the Rue de Gruadet



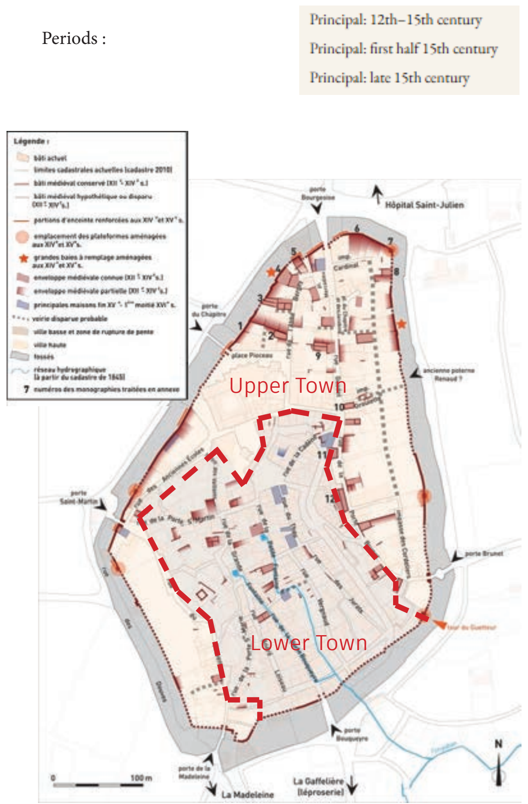
Section of the house at 5, Rue de la Porte Brunet

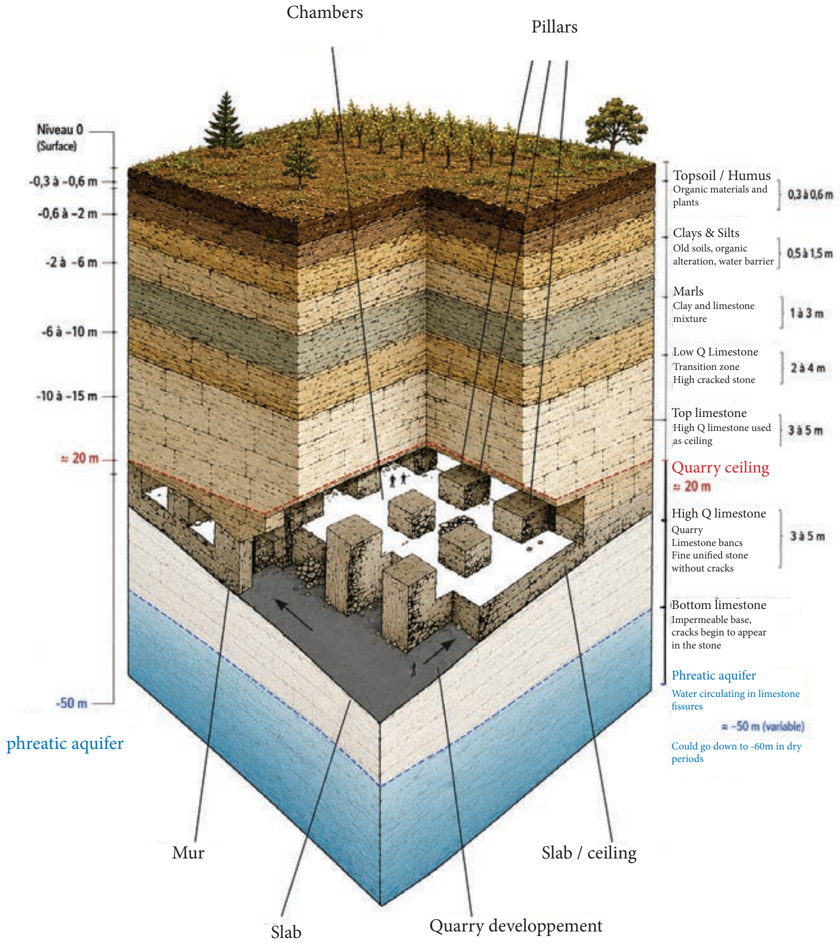
1 | The location of the quarries in Saint-Émilion





1a | Distribution of Housing in the Medieval Core of Saint-Émilion

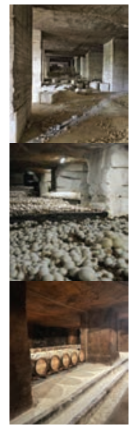




Historical Context of the Quarries
Stone extraction developed primarily underground, from cutting faces (bouches de cavage) opened at hillside exposures. The quarries were excavated using the rooms-and-pillars technique, on several superimposed levels. The total area of sub-excavated zones is estimated at approximately seventy hectares, centred mainly on the town of Saint-Émilion, with about ten hectares lying directly beneath built-up areas.

The limestone formations exploited are known as Calcaire à astéries (astéries limestone), dating from the Lower Oligocene. This formation rests on softer terrain — fluvial, fluvio-lacustrine, palustrine, and marine deposits — also from the Lower Oligocene, found at the foot of the plateaux.

Extraction ceased progressively during the 20th century, leaving a network of galleries and underground chambers. These voids could not simply be abandoned: an unsupervised quarry becomes rapidly dangerous — water infiltrates, pillars weaken, vaults crack, and the risk of collapse threatens buildings and vineyards above.



A first conversion emerged from the late 20th century: cultivation of Paris mushrooms. More recently, many quarries have been converted into wine-ageing cellars (chais viticoles) — economically relevant and responding to a heritage and safety imperative. The challenge is therefore either to backfill these quarries or convert them to prevent serious structural accidents.

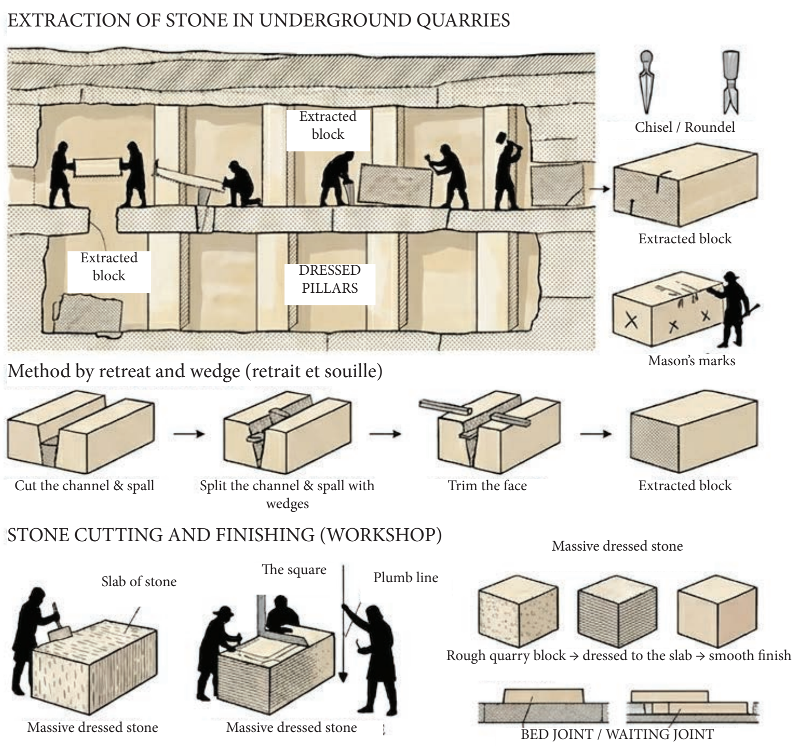
New collapses in upper levels are to be feared in the short to medium term — especially after particularly rainy periods.

Destabilisation mechanisms are linked to several combined factors: a high extraction rate, a locally very thin overburden above the quarries (reducing the soil's capacity to distribute loads), the presence of lenses of friable limestone, and karstic networks — all of which aggravate the fragility of the system.

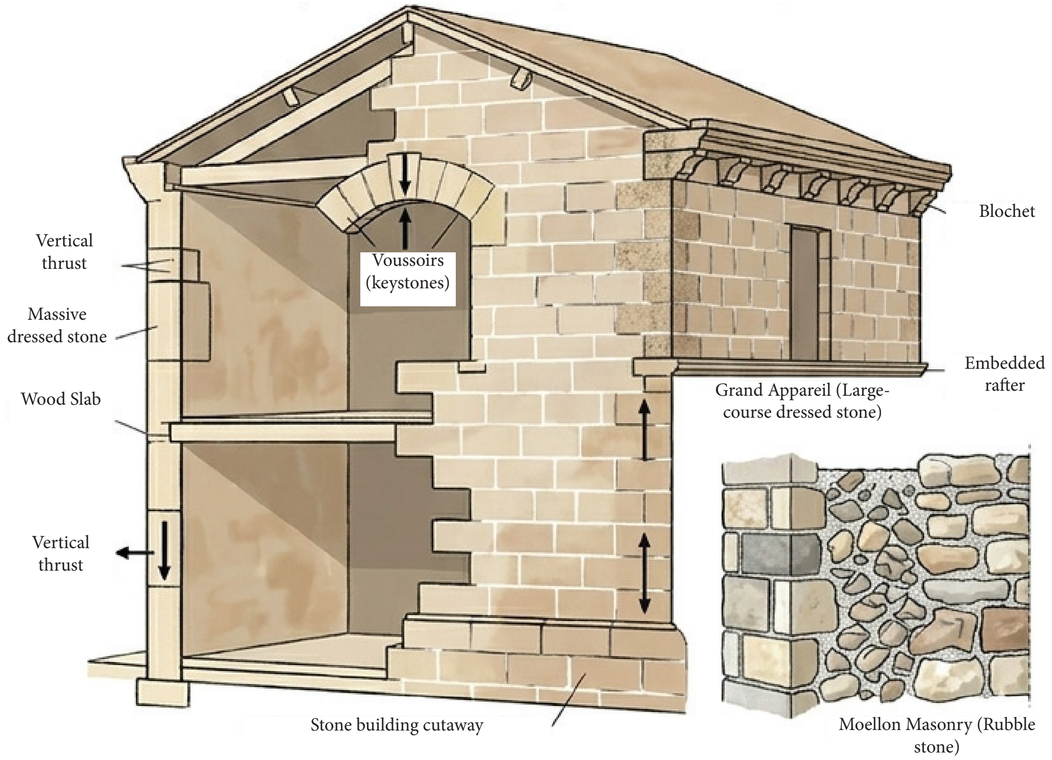
2 | How does the presence of water in a karstic subsoil hollowed out by quarries influence structural stability and forms of inhabitation in Saint-Émilion

3 | Construction System of a Stone Building in Saint-Émilion

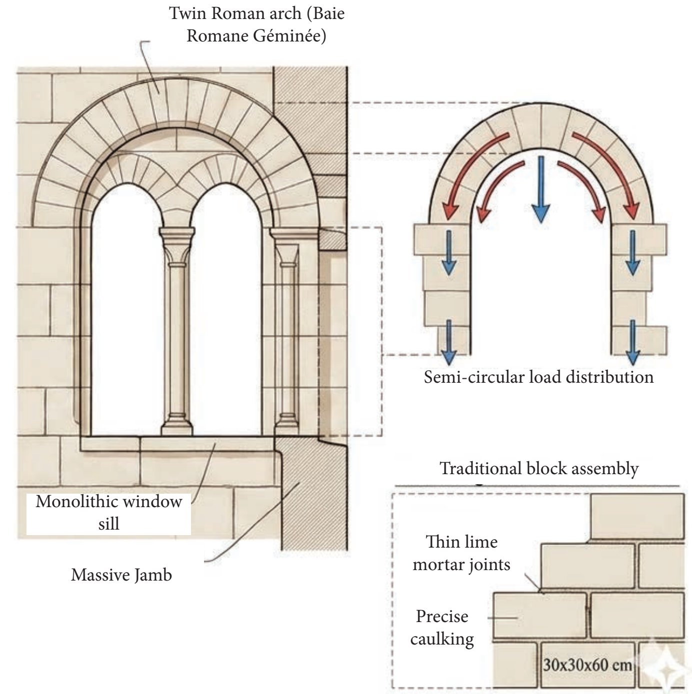
3a | Stone Extraction as Raw Material



3b | Construction of Massive Masonry

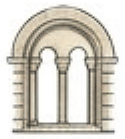


3c | Treatment of Openings



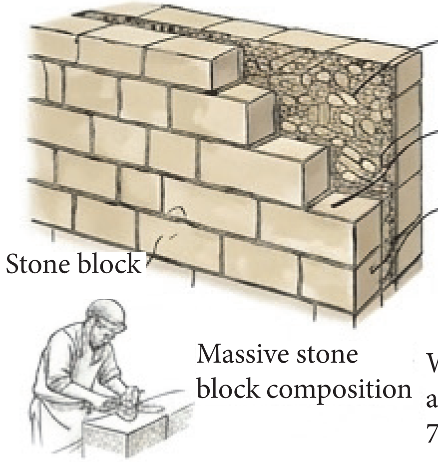
AMÉLIE BRIDIER _ NINA DESSALES _ PEDRO EGAÑA CARDARELLI _ VICTOR LANGARICA SARABIA _ CAROLINA LONA GARCIA (2026)

SAWH oX26 - schools of architecture + world heritage - online exhibition 2026

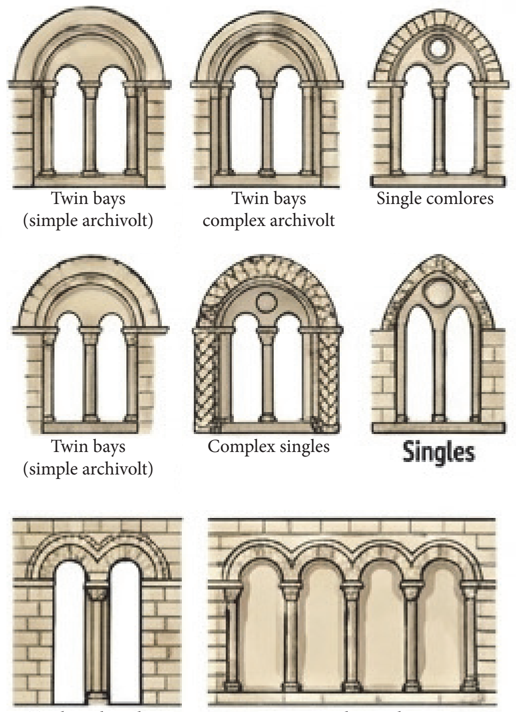


1 | Style Romanesque (XIeme-XIIeme s.) | MONUMENTAL MASONRY

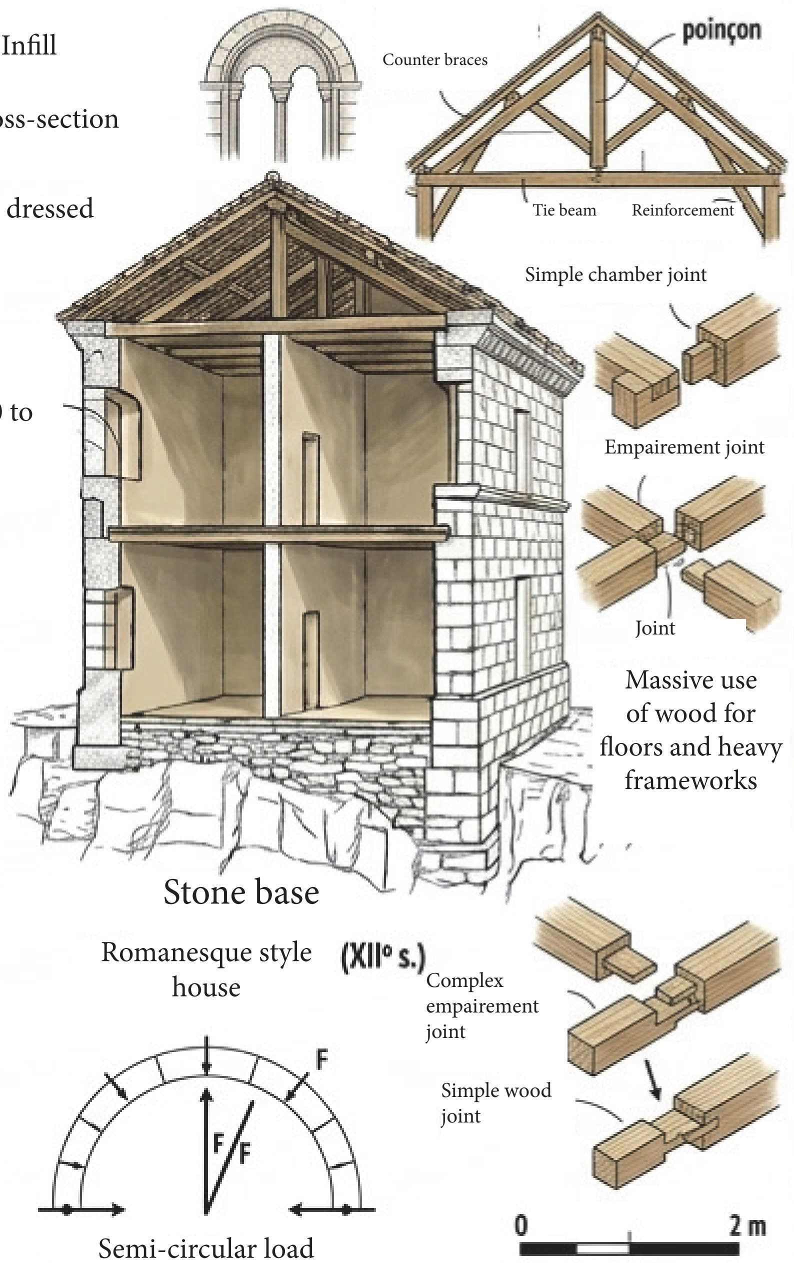
Evolution of Romanesque Masonry & Bond Patterns



Romanesque style openings

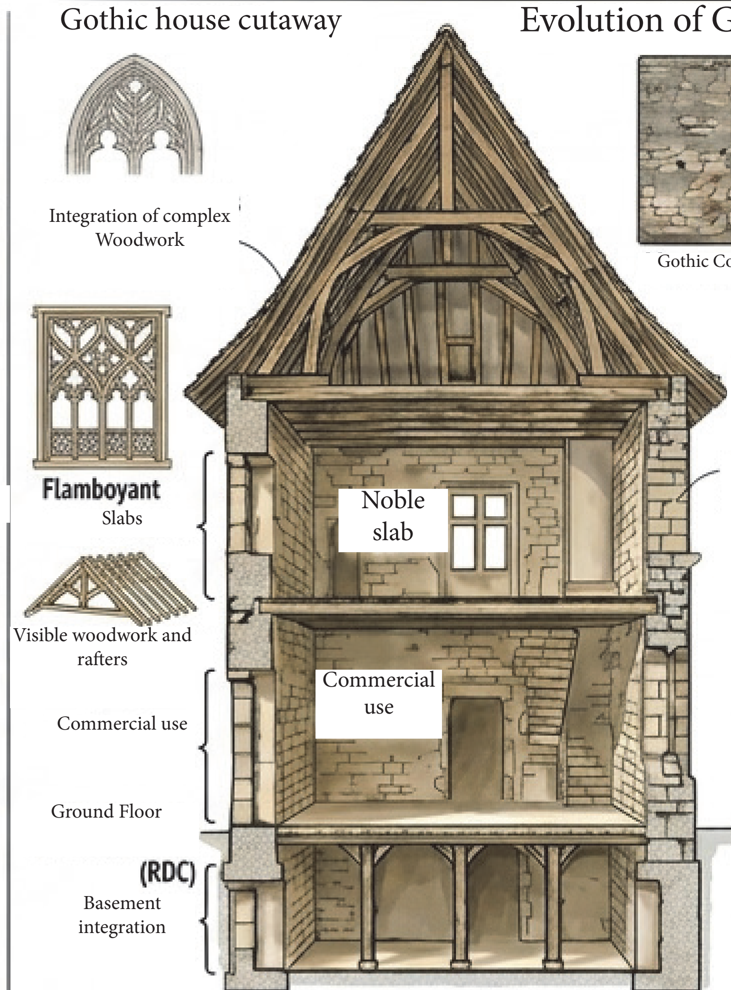


Romanesque Roof Truss

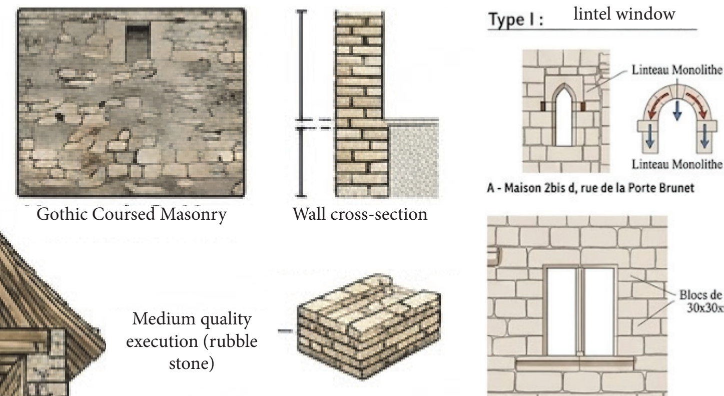


2 | Style Gothic (XIVeme-XVeme s.) | WOOD–STONE ARTICULATION

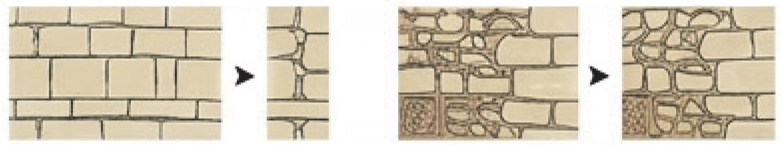
Gothic house cutaway

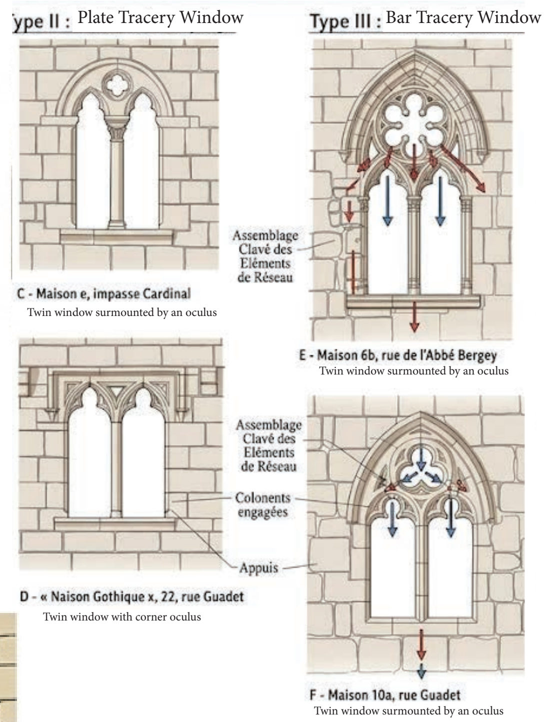


Evolution of Gothic Masonry & Bond Patterns



GOTHIC WALL EVOLUTION

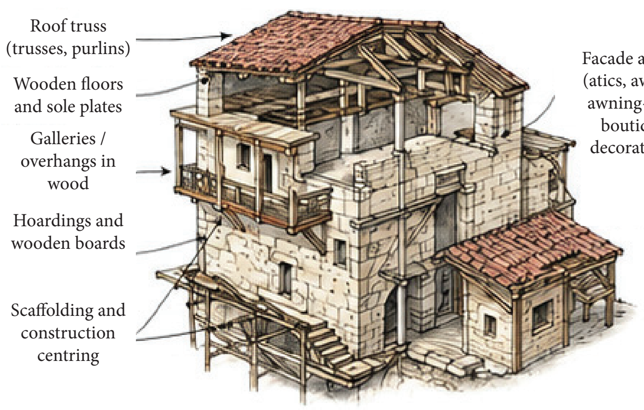




Gothic style Openings

3 | Wood in a Stone City

Stone dominates, but wood remains essential.



After the Hundred Years' War

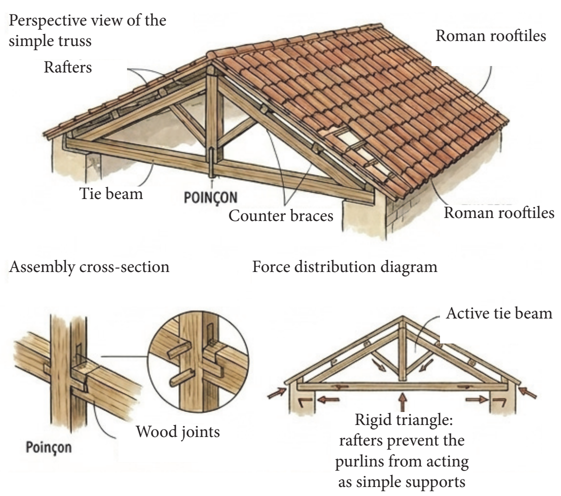
Half-timbering appears but is limited to certain floors and facades.

SAINT-ÉMILION REMAINS ABOVE ALL A STONE CITY.

3a | Romanesque Roof Truss

(11th–12th c.)

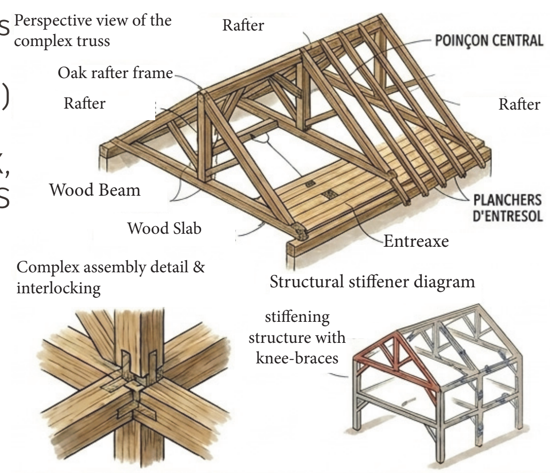
THE SIMPLE, NON-DEFORMABLE TRUSS



3b | Gothic Roof Truss

(13th–15th c.)

THE COMPLEX, STIFFENED TRUSS



AMÉLIE BRIDIER _ NINA DESSALES _ PEDRO EGAÑA CARDARELLI _ VICTOR LANGARICA SARABIA _ CAROLINA LONA GARCIA (2026)

translation | translation | translation | translation | translation | translation | transla

STONE

BUILDING - URBAN SPACE

BUILDING

Main causes
The stone is mainly affected by moisture coming from **rain**, ground **humidity**, and **water runoff** on the façade.

Observed pathologies
- Growth of **moss** and vegetation in plinths and column bases
- Deterioration of joints between ashlar blocks

Consequences
The stone loses **quality**, joints are weakened, and its surface degradation is accelerated, affecting the overall reading of the building.

Intervention measures
- Controlled cleaning of façades depending on the level of dirt
- **Repointing** with compatible lime mortars

URBAN SPACE

Main causes
In urban space, stone is affected by **moisture** that builds up in the **pavement**, lack of joint maintenance, and organic dirt that accumulates over time.

Observed pathologies
- **Growth of grass** between stone pavement joints, pavements edges and building connections
- Moss in damp and shaded areas

Consequences
Vegetation growth slowly opens the joints and **reduces pavement stability**. In addition, water accumulation speeds up the deterioration of the stone.

Intervention measures
- Regular removal of grass and vegetation from joints and edges
- **Improvement of surface drainage in streets**
- Supporting slopes to avoid water accumulation

WOOD

Main causes
Wood is affected by rain **moisture, temperature** changes, and direct contact with water or the ground.

Observed pathologies
- Mold in lower areas in contact with the ground
- **Deterioration of exterior wood** due to rain and sun exposure

Consequences
Wood loses strength, becomes deformed, and can weaken over time. It affects **stability**, and the deterioration is faster due to constant exposure to weather conditions.

Intervention measures
- **Separate wood** from humid areas whenever possible
- Apply **treatments against fungi and moisture**
- Protect exterior wood from rain and sun

ROOFS AND TILES

Main causes
Exposure to sun, dirt accumulation, occasional **leaks**, and water stagnation.

Observed pathologies
- Loss of color in tiles
- **Water accumulation** in poorly drained points

Consequences
Risk of water leaks into the interior and progressive deterioration of the roof system.

Intervention measures
- Inspection and **replacement of damaged tiles**
- Manual or low-pressure cleaning
- Sealing of joints with suitable and breathable materials

GUTTERS AND PIPES

Main causes
Exposure to sun and rain causes **corrosion**.

Observed pathologies
- **Cracked stones** caused by the corrosion of the metal structure inside because of the implementation of the pipes.
-Overflow of the gutters leads to **cracked pipes**.

Consequences
-Interrupted water flow.
-Corrosion leads to connection of the pipes to be loose.

Intervention measures
- Regular **removal of vegetation** and dirt from joints, edges and gutters.




DILA CICEK _ LUCIA CÓRDOBA IGLESIAS _ PARASKEVI SYNODAKI _ MANON VIÉ _ MYRSINI VLACHOU (2026)

Environmental Risks

The phenomenon of shrink-swell of clay soils

Differential **ground movements** related to the shrink-swell phenomenon of clay soils can cause significant damage to buildings.

Landslides or falls of rocks and boulders.

Action of erosion, weather conditions (rain etc.) and **root systems** on the rocky slopes, leading to the detachment of stones and blocks.

Pollution

Copper is used in vineyards as a fungicide to protect vines from diseases. However, copper does not degrade easily, so it accumulates in the soil and in the water over time, which can become **harmful** to plants, soil organisms, and biodiversity.

Flood risks

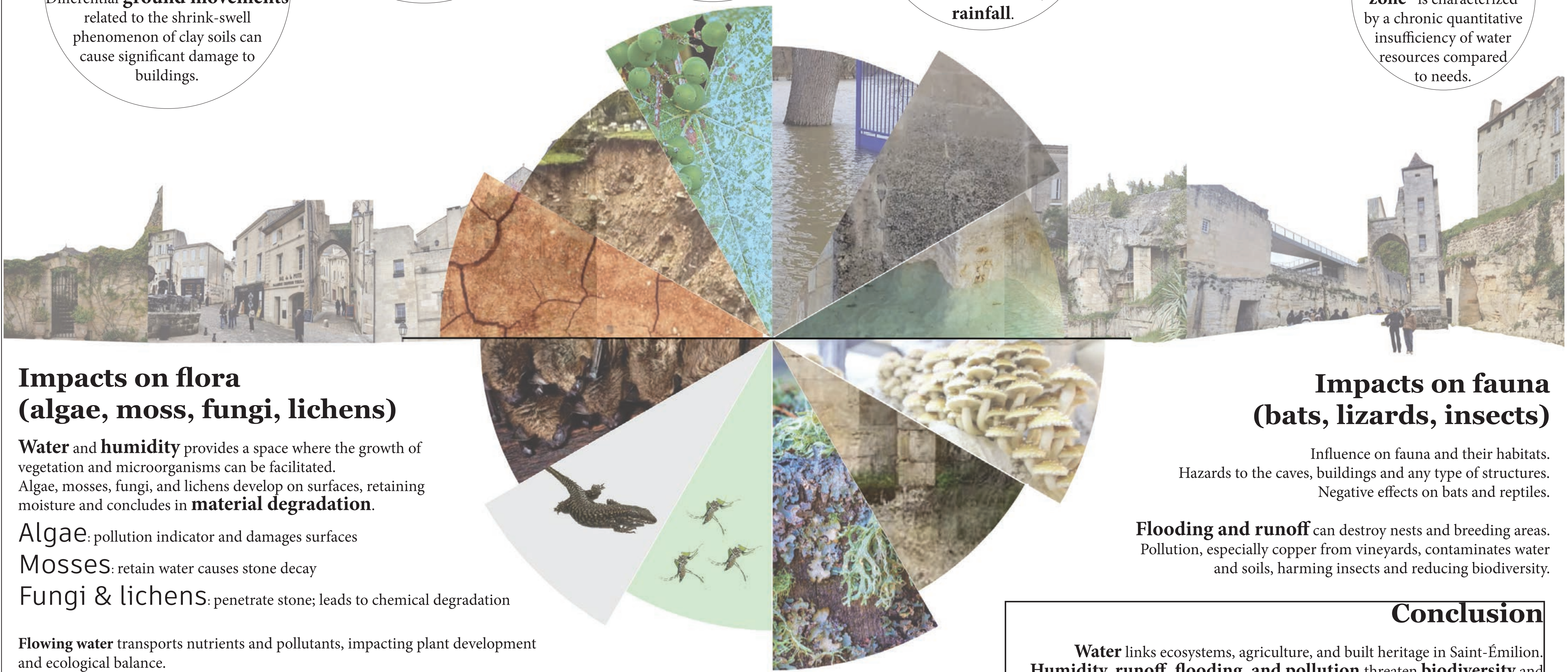
The Dordogne basin experiences two types of floods. Winter floods with a slow rise and spring and summer floods (tributaries of the hills) that are more sudden, because they are linked to stormy **rainfall**.

Humidity

Humidity is well known as a catalyst for mold and mildew growth, both of which pose serious **health risks** to occupants and can cause extensive damage to buildings.

Groundwater

A **"water distribution zone"** is characterized by a chronic quantitative insufficiency of water resources compared to needs.



Impacts on flora (algae, moss, fungi, lichens)

Water and **humidity** provides a space where the growth of vegetation and microorganisms can be facilitated.
Algae, mosses, fungi, and lichens develop on surfaces, retaining moisture and concludes in **material degradation**.

Algae: pollution indicator and damages surfaces

Mosses: retain water causes stone decay

Fungi & lichens: penetrate stone; leads to chemical degradation

Flowing water transports nutrients and pollutants, impacting plant development and ecological balance.

Vines: they hold the soil in place thus, less **erosion** happens with the existing rain and wind but reduces the biodiversity because of the **monocultures environment** of the vineyards. Also, vines are sensitive to changes in this case drought or floods can cause lack of oxygen and gets damaged.

Copper: according to a small amount of researches accumulates in soil/water which is toxic to plants and microorganisms

Impacts on fauna (bats, lizards, insects)

Influence on fauna and their habitats.
Hazards to the caves, buildings and any type of structures.
Negative effects on bats and reptiles.

Flooding and runoff can destroy nests and breeding areas.
Pollution, especially copper from vineyards, contaminates water and soils, harming insects and reducing biodiversity.

Conclusion

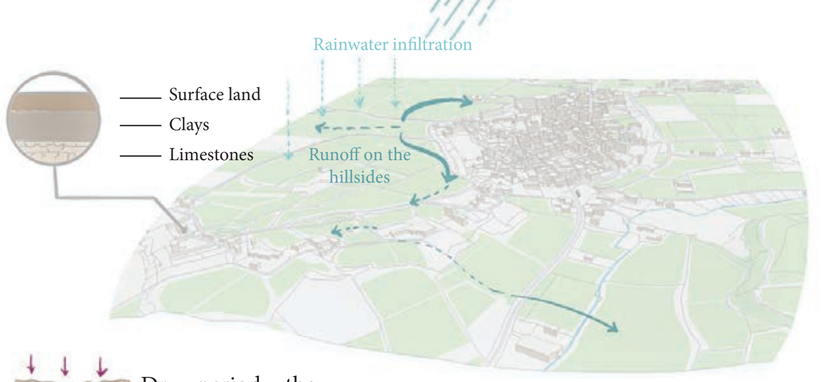
Water links ecosystems, agriculture, and built heritage in Saint-Émilion.
Humidity, runoff, flooding, and pollution threaten **biodiversity** and landscapes.
Moisture encourages vegetation and microorganisms that can damage materials and buildings.
Fauna relies on **stable, clean water habitats** that are vulnerable to disturbance.
Agricultural practices, for example the use of copper and phytosanitary products, pollute soils and waterways.
Water is both a vital resource and a source of environmental and conservation risks.

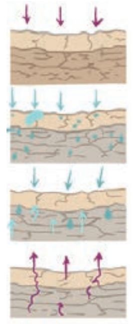
DILA CICEK _ LUCIA CÓRDOBA IGLESIAS _ PARASKEVI SYNODAKI _ MANON VIÉ _ MYRSINI VLACHOU (2026)

OBSERVE: Water, a resource under pressure with many challenges

The challenges of clay cracking

Beneath the soils and hillsides, there are water-sensitive clays



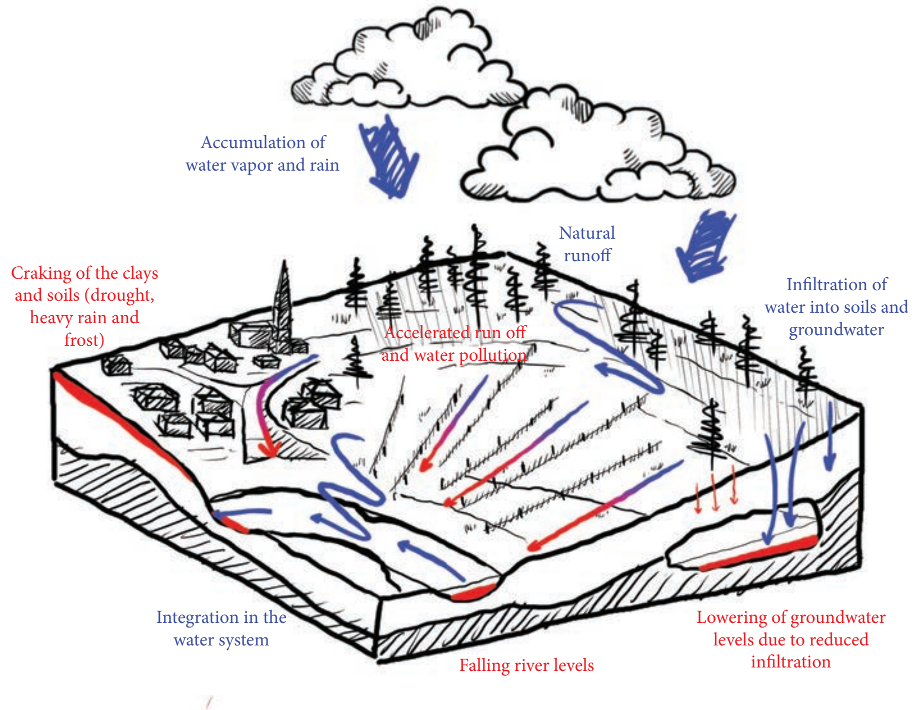


The clay and marl-limestone soils of Saint-Émilion strongly influence water flows and infiltration. The Ground Movement Risk Prevention Plan (PPRMT) identifies areas exposed to clay shrink-swell phenomena, intensified by humidity variations and drought periods. The historic underground quarries beneath the village also weaken the ground and increase risks of instability. In vineyard areas, slopes and cultivated soils intensify runoff and the transfer of diffuse pollution into waterways.

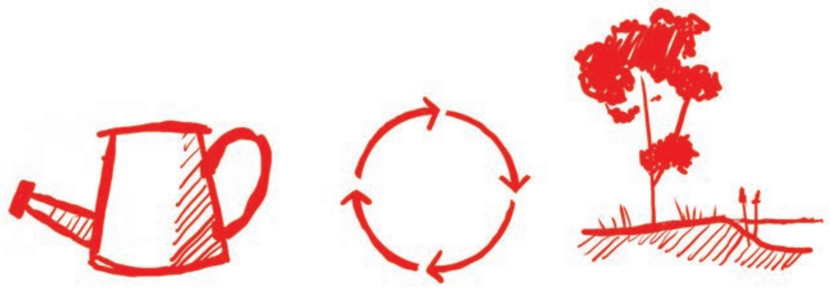
The water environnemental issues

788 millimeters of rain on average per year.

The water cycle in the city of Saint-Emilion



The water cycle in Saint-Emilion issubject to numerous challenges. Urban and agricultural environments, each with its own specific characteristics, have led to disruptions. Beyond this alteration of the cycle, the issue of this resource is also very present in this region, with lack of water in summer for exemple. Finally, there is an environmental degradation caused by human activities. Pollution of surface and underground water has consequences for local biodiversity.

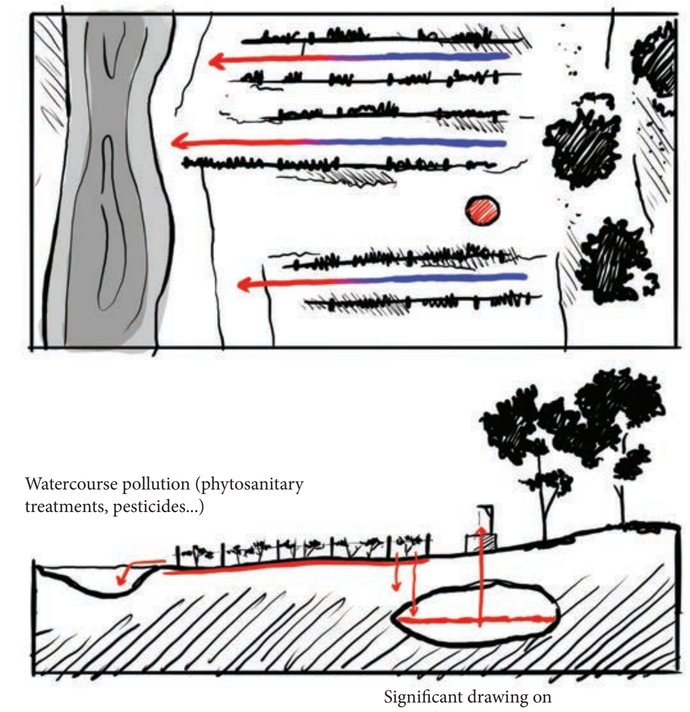


Resource issues

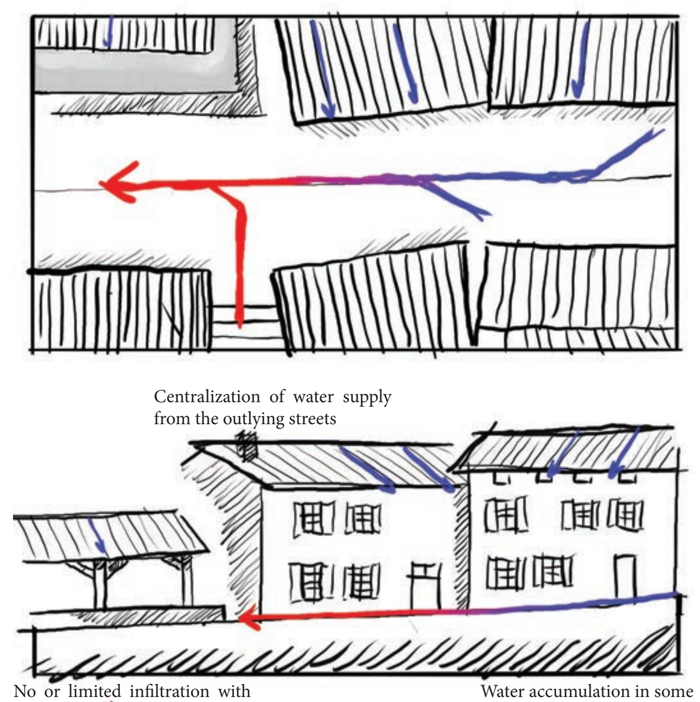
Issues arising from the disruption of the natural cycle

Issues affecting natural environments

The water issues in agricultural plots



The historic center and the surrounding vineyards present two distinct relationships with water. The dense and highly mineralized village center limits infiltration and accelerates rainwater runoff. In contrast, vineyard landscapes are directly connected to soils and natural water flows, although agricultural practices and slopes intensify runoff and pressure on aquatic environments.

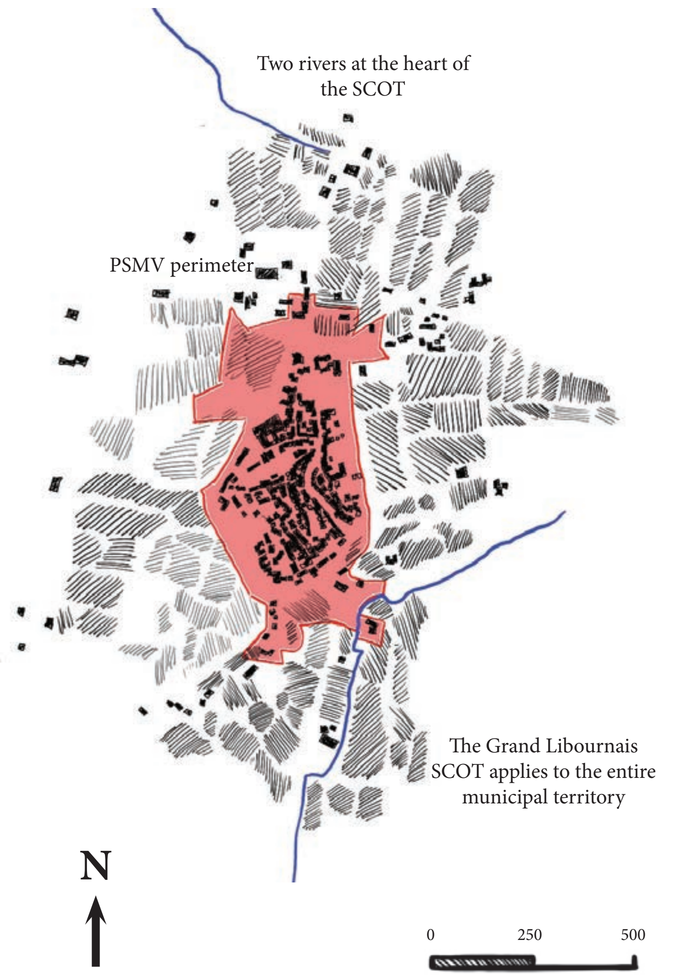


The water issues in built-up areas

ÉMILIE AUDOUIN _ LAORA DURAND-BIGORIE_ CLÉMENT JÉGO _ MANON JOOS _ CLAIRE MARTINEZ (2026)

ACT: Regulations concerning the presence of water

Saint-Emilion : a management through overlapping perimeters



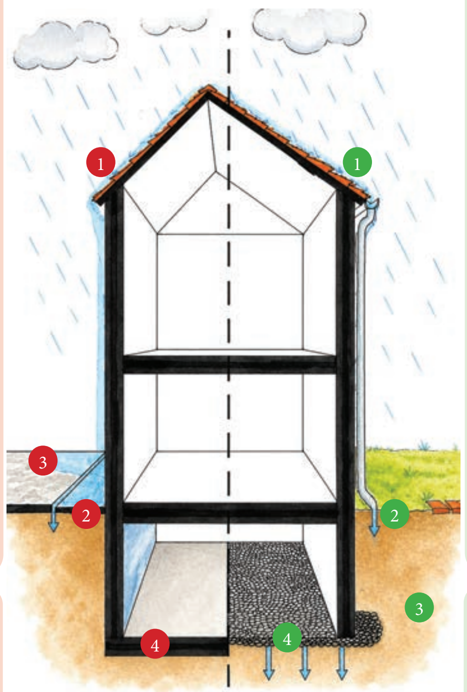
The PSVM, a regulation covering the historic center

The PSMV provides a framework for **development in the historic center of Saint-Émilion** in order to **preserve** the built heritage, public spaces, and historic characteristics of the site. It primarily **operates at the architectural and urban levels** through guidelines on materials, facades, paving, and landscaping. **The issue of water is primarily addressed from a technical and heritage perspective**, particularly through the preservation of existing structures and the management of stormwater in a highly mineralized urban fabric. Contemporary infiltration or source management systems are scarcely mentioned in the document.

Without regulation - problems

1. Rainwater runoff: Rainwater runs down the roof and along the facade.
2. Concrete at facade base: Concrete prevents infiltration. Water accumulates at the base of the facade.
3. Surface runoff: Water flows on impermeable surfaces to the public space.
4. Water in basement: Water can infiltrate in the basement causing humidity and damage.

Why regulations?
- To protect heritage buildings from moisture and structural damage
- To reduce surface runoff and flood risk
- To reintegrate water in the city



Without regulation - solutions

1. Rainwater descent: Rainwater is collected and guided by gutters and downpipes.
2. Permeable materials at facade base: Use of permeable materials (stone, gravel, grass...). Water infiltrates into the ground.
3. Infiltration: Water infiltrates into the ground. No runoff
4. Controlled water management in basement: Water is managed by ventilation / adapted systems.

Regulation principles
- Prohibit impermeable materials at the base of facades
- Promote permeable, breathable and inert materials
- Guide water to infiltrate where it falls

Double objective:
Protect heritage buildings + Limit runoff and build a resilient city

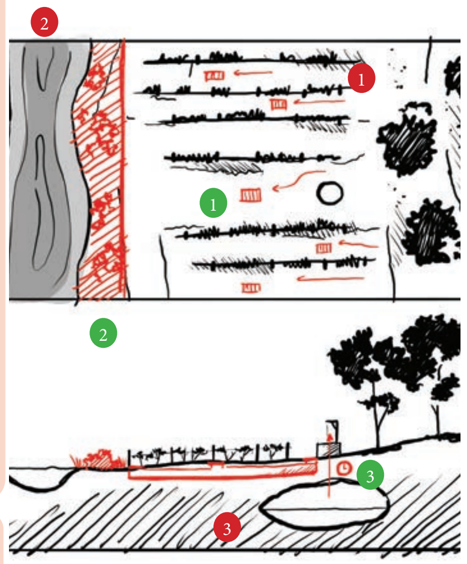
The SCOT, a regulation on a territorial scale

The Grand Libournais SCOT **sets out the broad guidelines for land-use planning at the intermunicipal level**. It addresses **water as a local resource that must be preserved** in the face of urban, agricultural, and climate-related pressures. The document **emphasizes the protection of aquatic environments**, such as the streams in Saint-Émilion, as well as limiting land development and the need to adapt land uses to the availability of water resources. It also **recognizes the defining role of viticulture** in the landscape of Saint-Émilion. However, **its guidelines remain general** and have little impact on the specific organization of agricultural plots or on local runoff management.

Without regulation - problems

1. Rainwater runoff: Rainwater runs down between the rows
2. Returns to the water system: The water is returned unfiltered, with pollution, and in large quantities
3. Groundwater extraction: Excessive depletion of ground water

Why regulations?
- To prevent water from pollution
- To preserve the ressource
- To limit the runoff and the risk of flooding



Without regulation - solutions

1. Underground swales: Prevent runoff and recover the resource
2. Vegetation along streams: The water is naturaly filtrated
3. Limited draws: Preserving the resource by controlling its use

Regulation principles
- Limiting factors that promote runoff
- Limiting pollution factors and transitioning to organic farming
- Limiting resource waste

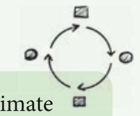
Double objective:
Limit the risks (pollution, runoff...) + preserve the resource

Lack of and inadequacy of regulations on water treatment :


Integrated Stormwater Management (GIEP)


Rainwater harvesting/reuse at the building scale


Reuse of treated wastewater


Adapting to climate change


Water governance: an ambition for coordination without concrete mechanisms

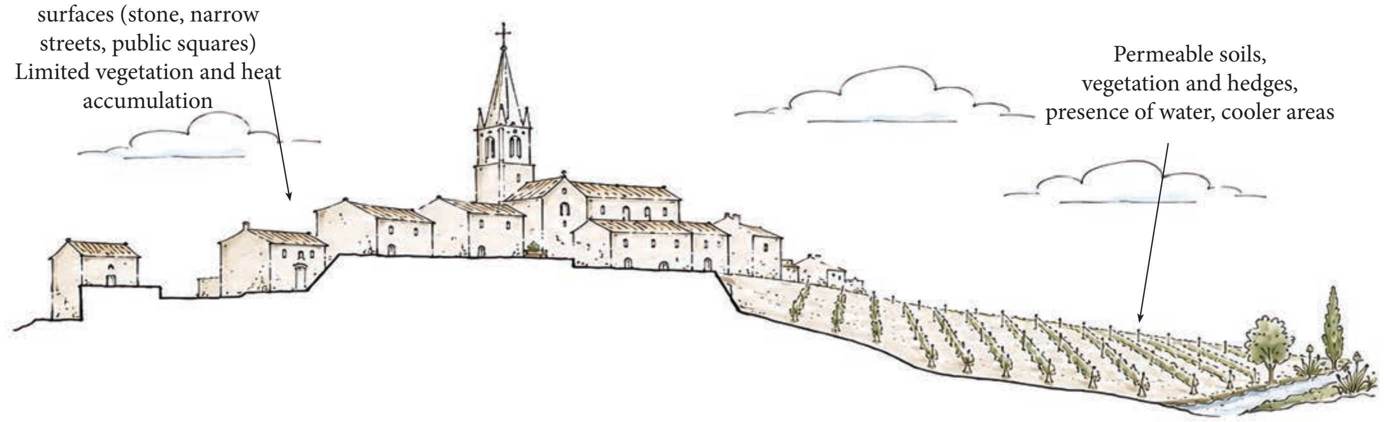

Water-related sobriety at the building scale


Managing the risk of intense runoff


Separate management of grey and black water at the building level

(Analysis of the current SCoT, SCoT currently being developed, current PLUi and current PSMV)

Saint-Emilion : a differentiated application of strategies according to sectors



ÉMILIE AUDOUIN _ LAORA DURAND-BIGORIE_ CLÉMENT JÉGO _ MANON JOOS _ CLAIRE MARTINEZ (2026)

PROJECTS

Raw material

A place for the transmission of traditional craftmanship

Existing condition photos


Project location


Logis de Malet's wall


Quarry located beneath the Logis de Malet

Project overview

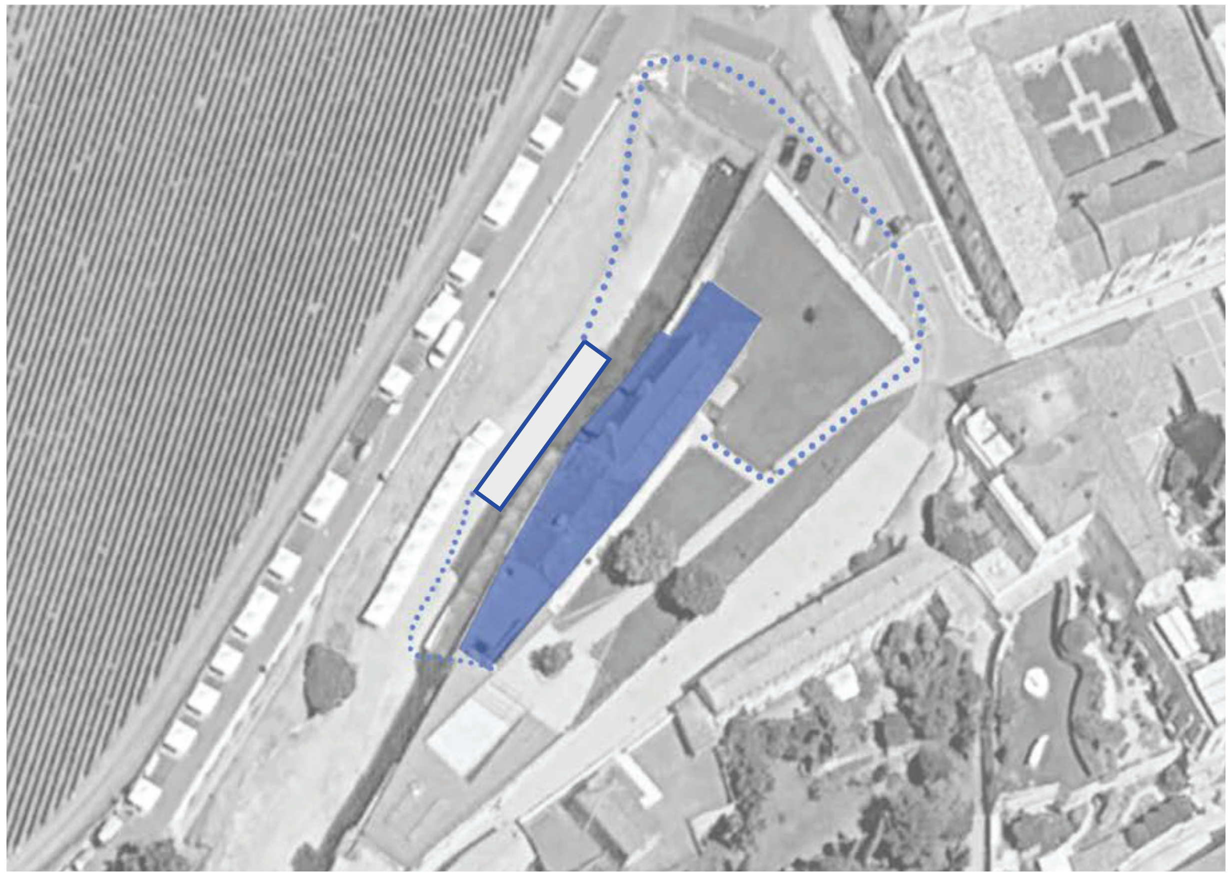
The project is located at the foot of the Logis de Malet and takes the form of several lightweight wooden structures accommodating different cultural and educational uses.

An exhibition space dedicated to the role of water in Saint-Émilion complements the cultural program already present on the site. An additional workshop space focused on stone craftsmanship allows visitors to rediscover the gestures of former quarry workers through a reconstructed quarry wall.

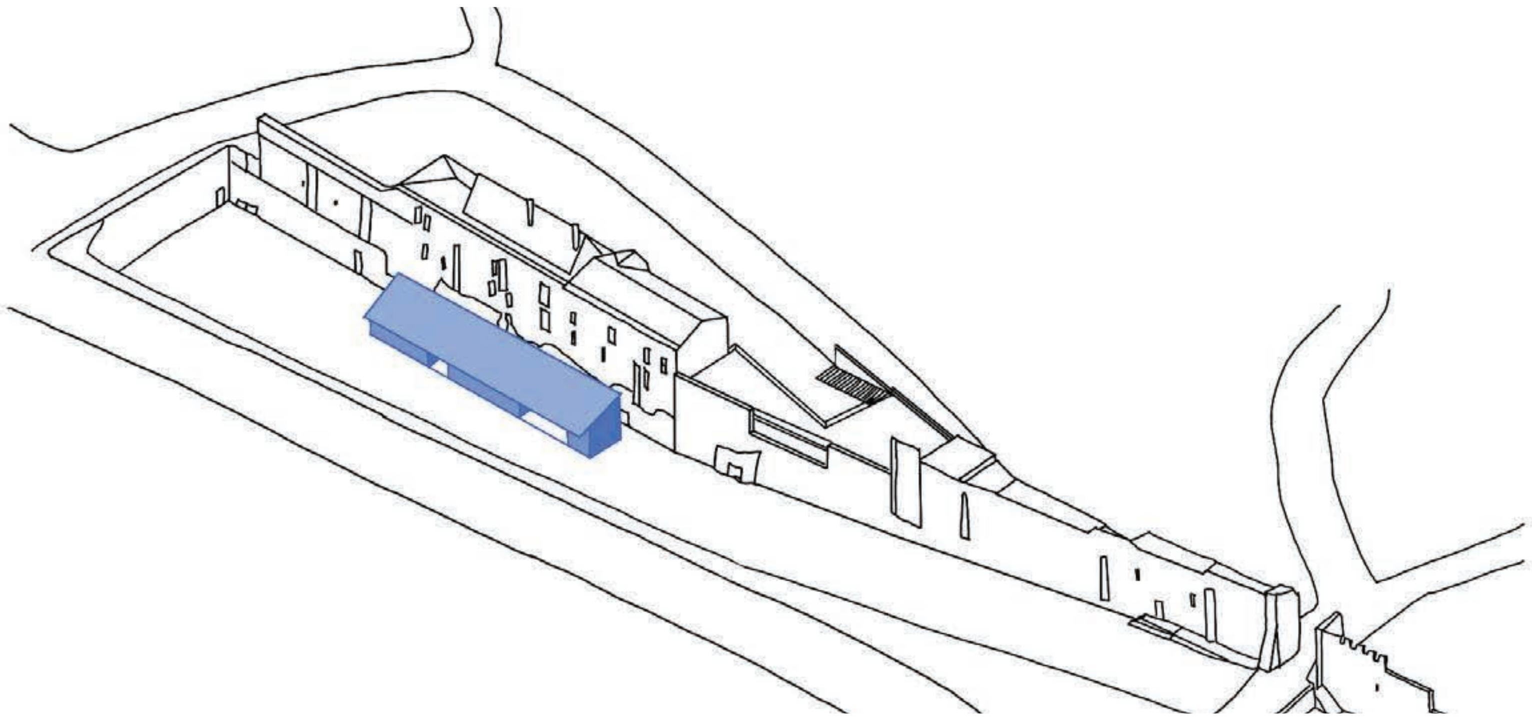
Furthermore, the project aims to highlight the existing historic quarries rather than continuing to excavate the territory.
The construction prioritizes structural assemblies without screws, using a system of timber sandwich joints and wooden dowels.

The project also integrates a water recovery system for workshop activities. In addition, particular attention is given to biodiversity, notably through the integration of bat nesting boxes within the wooden cladding.

Aerial site plan



Project axonometric view



Materials library


Pine wood

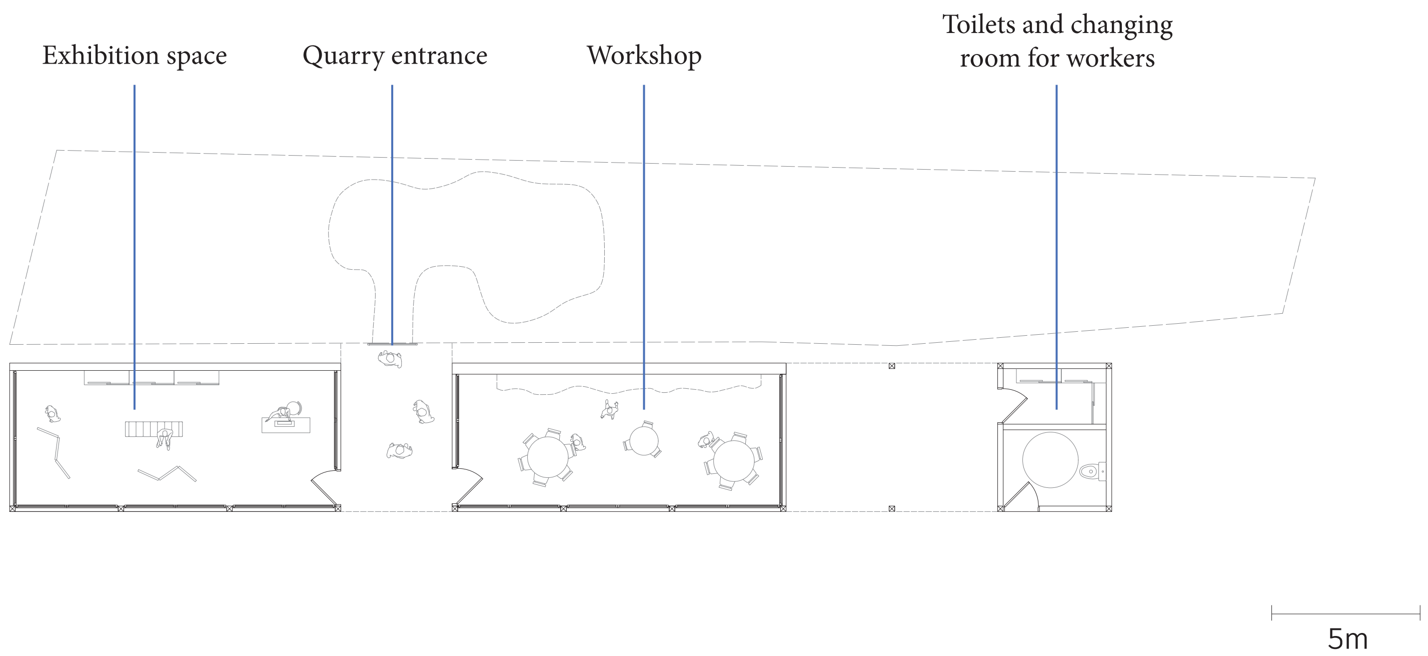

Limestone


Canal tiles

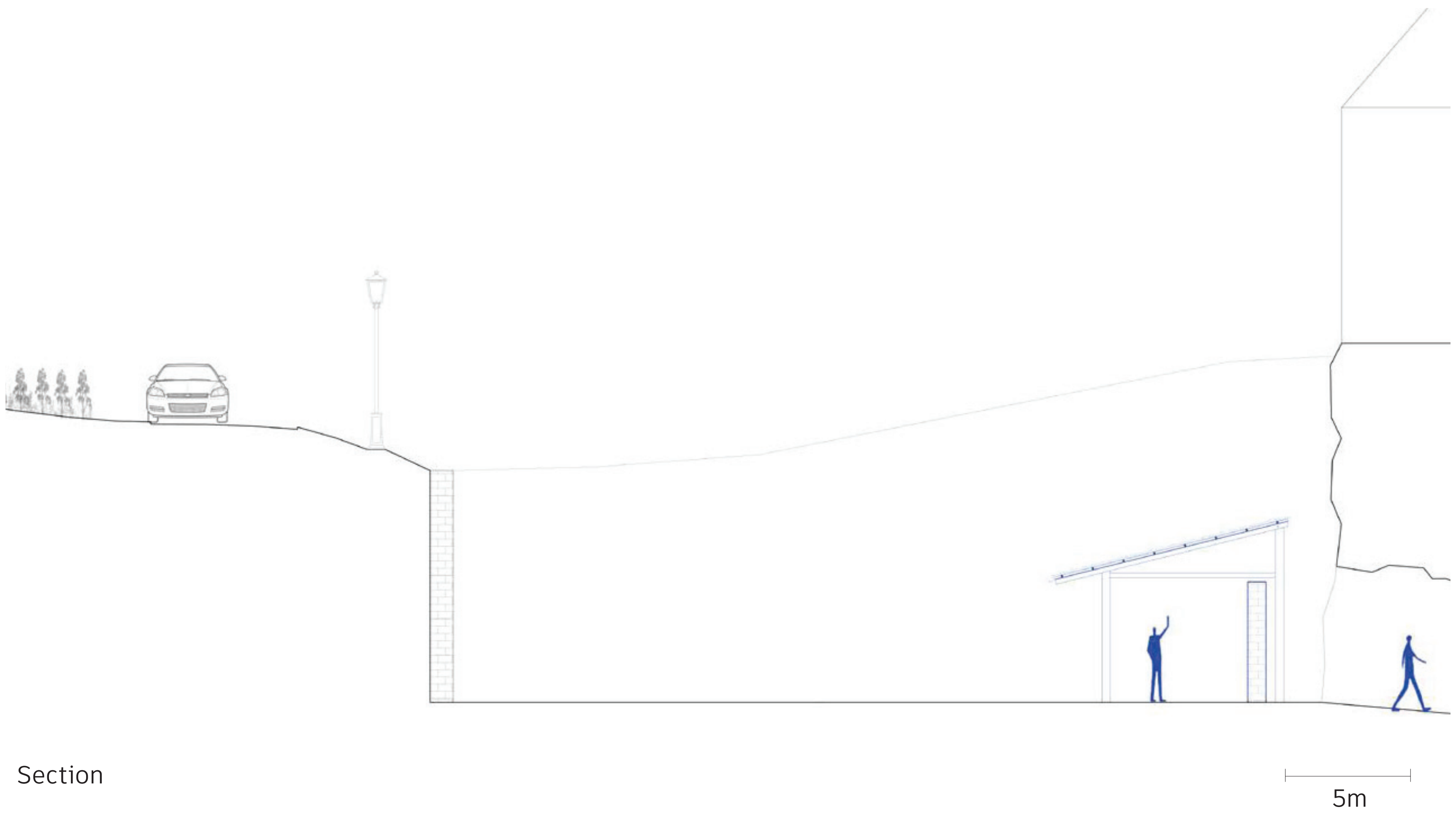
LÉA CHAMBAUD _ LÉNA FREMANTEAU _ SOHA GUITOUNI _ MAYA MESNIER _ ELSA VILLIER (2026)

Raw material

A place for the transmission of traditional craftmanship



Project plan



Section

Exhibition space

Workshop

View of the quarry

LÉA CHAMBAUD _ LÉNA FREMANTEAU _ SOHA GUITOUNI _ MAYA MESNIER _ ELSA VILLIER (2026)

Water as Solution

Water creates comfort, life and experience

Objectives

1. Generate awareness about heat, lack of vegetation and the relationship with water in Saint-Emilion
2. Create a climate refuge and a sensory experience through water, light and nature
3. Respond to climate change and create microclimates that improve interior comfort
4. Incorporate vegetation and water to generate cooler, healthier and more liveable spaces
5. Recover and give new life to existing caves through new uses and meaningful experiences

How Water Transforms the Cave

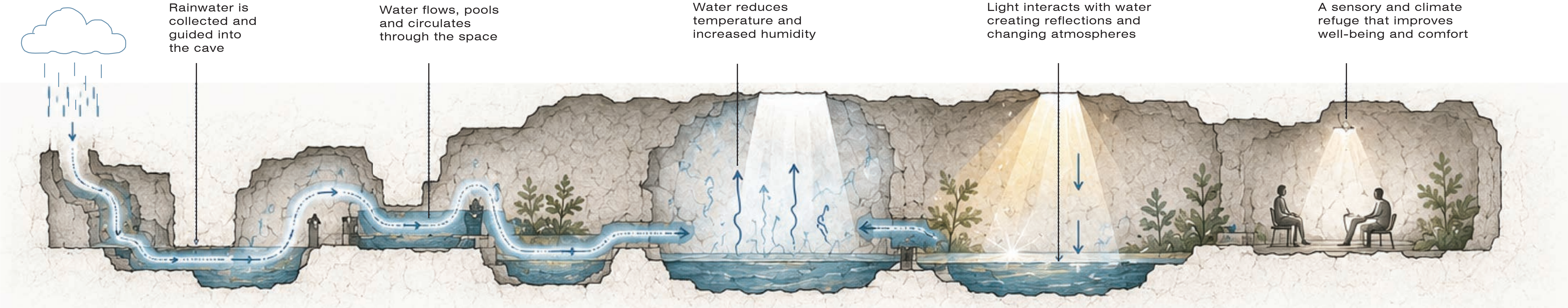
1. COLLECT
Rainwater is collected and guided into the cave

2. DISTRIBUTE
Water flows, pools and circulates through the space

3. COOL
Water reduces temperature and increased humidity

4. REFLECT
Light interacts with water creating reflections and changing atmospheres

5. EXPERIENCE
A sensory and climate refuge that improves well-being and comfort



Benefits

LOWERS TEMPERATURE
Water evaporates and reduces the perceived temperature.

INCREASES HUMIDITY
Improves air quality and creates a more comfortable environment.

NATURAL VENTILATION
Water and temperature differences generate fresh movement.

VEGETATION SUPPORT
Water enables plants to grow, enhancing biodiversity and shade.

WELL-BEING
Cooler, greener and quieter spaces improve health and well-being.

The Challenge

- Rising Temperatures
- Lack of vegetation
- Scarcity and invisible water
- High number of visitors in summer seeking shade and rest

Our Response

CAPTURE + CIRCULATE + BRING LIGHT + BRING NATURE = CLIMATE REFUGE

WATER
Main element
→
COOLS
Reduces heat
→
CREATES COMFORT
Improves humidity and air quality
→
SUPPORTS NATURE
Vegetation and biodiversity
→
ENHANCES EXPERIENCE
Well-being and sensoty connection
→
SUSTAINABLE FUTURE
Resilient and conscious spaces

AMÉLIE BRIDIER _ NINA DESSALES _ PEDRO EGAÑA CARDARELLI _ VICTOR LANGARICA SARABIA _ CAROLINA LONA GARCIA (2026)

The Veins of Water

The project establishes a guided pathway through a quarry, revealing water through different forms and temporalities.

Runoff, stagnation, waterfalls, infiltration, and light become markers of an invisible yet constant presence within the rock.

Through these interventions, visitors experience the transformations of water and become aware of its impact on underground spaces.

The pathway thus offers a sensitive interpretation of the risks linked to water and its interaction with the quarry.

Project Location

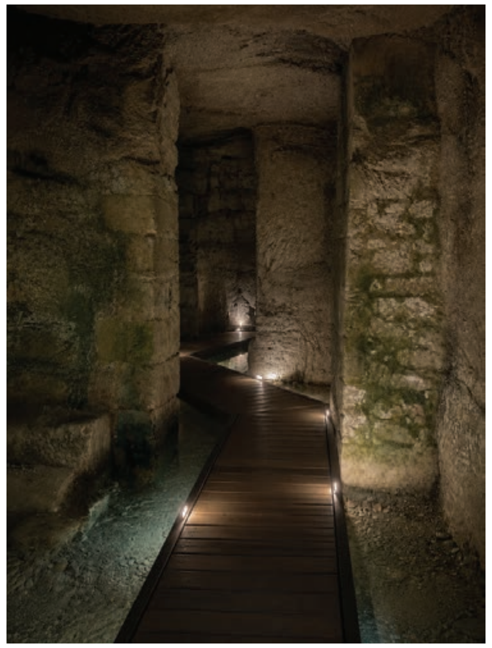
Quarry 248 plan

Légend:

Pillars

Direction of the path

End of the path



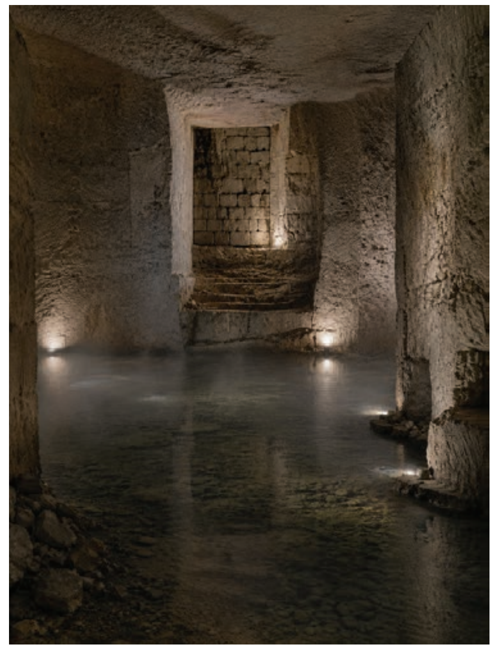
5 The course of water

4 Daylight

Beginning of the path

1 The flow

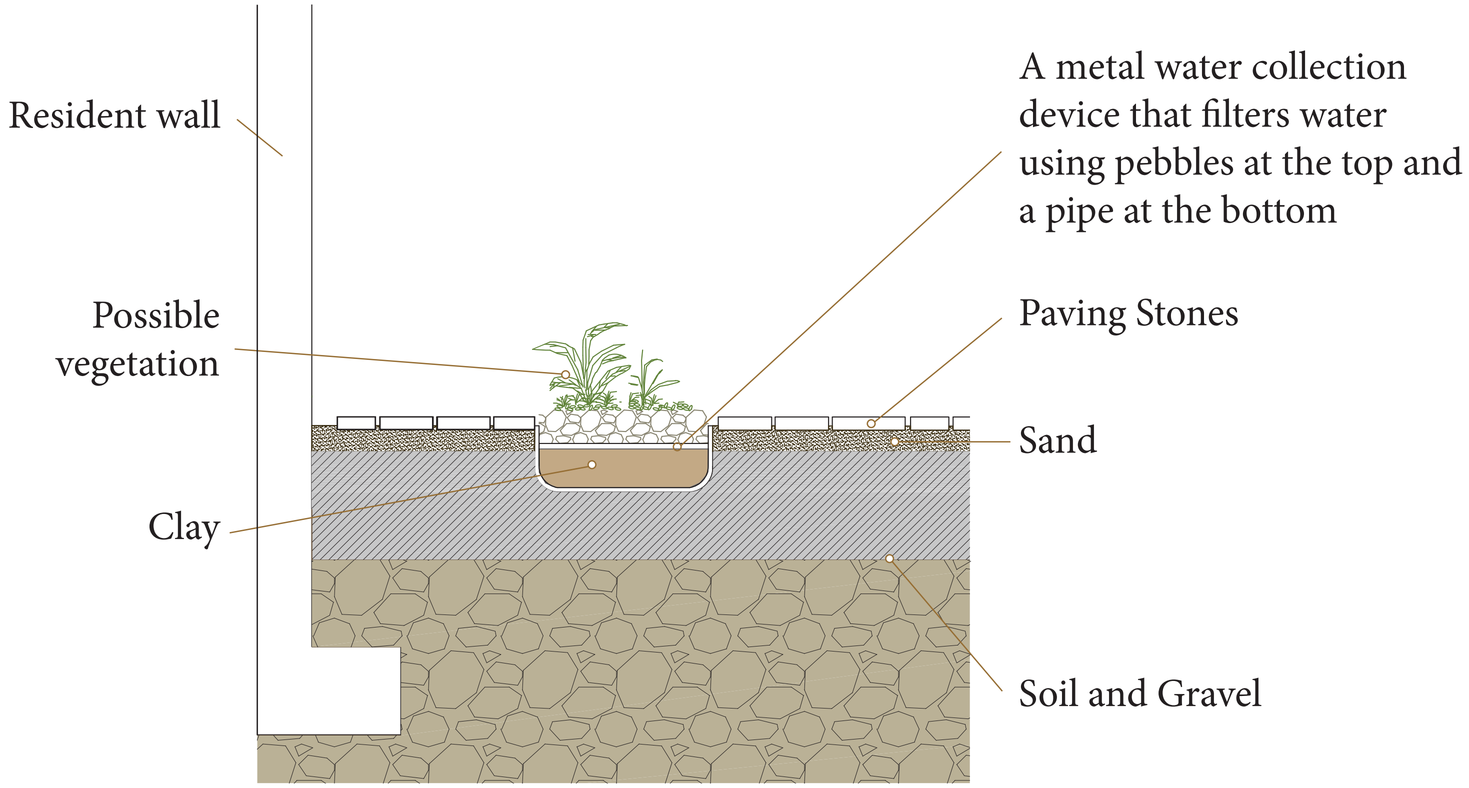
2 The reflect



3 The veil of water

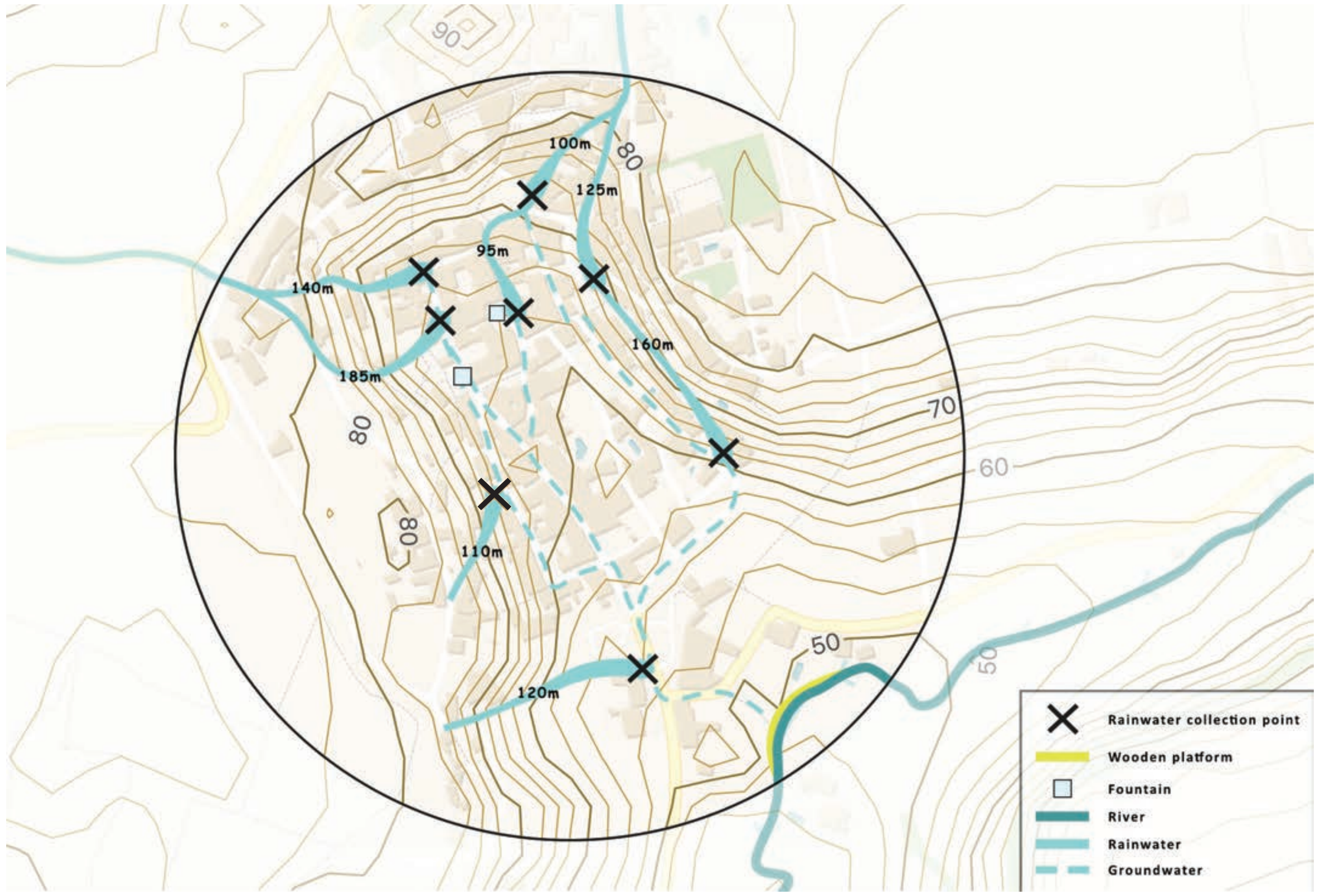
AMÉLIE BRIDIER _ NINA DESSALES _ PEDRO EGAÑA CARDARELLI _ VICTOR LANGARICA SARABIA _ CAROLINA LONA GARCIA (2026)

AquaRoute Saint Émilion



DILA CICEK _ LUCIA CÓRDOBA IGLESIAS _ PARASKEVI SYNODAKI _ MANON VIÉ _ MYRSINI VLACHOU (2026)

AquaRoute Saint Émilion

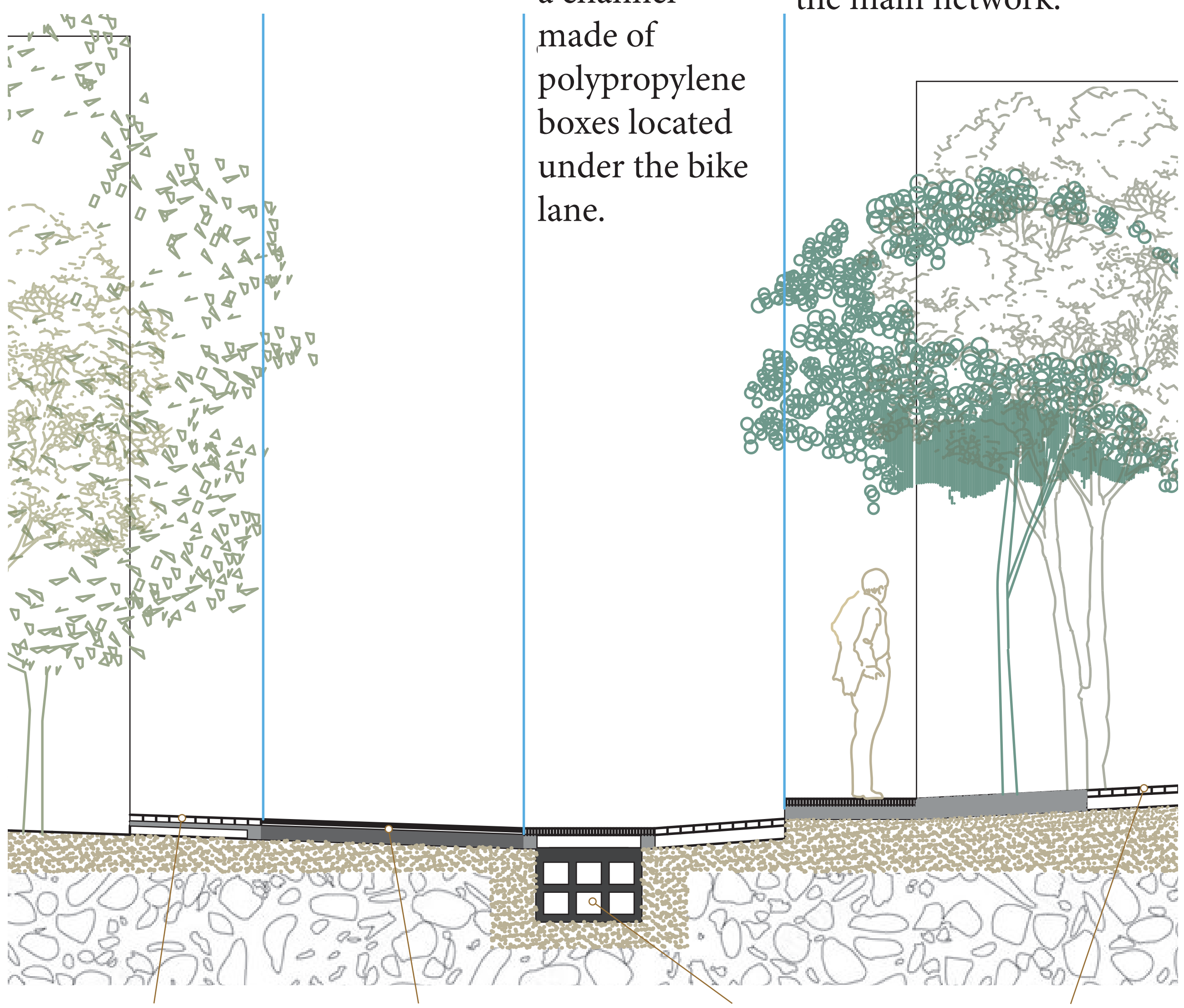


DRAINING SURFACE
which collects rainwater for its infiltration into the ground.

IMPERMEABLE SURFACE
whose function is to guide runoff towards permeable areas.

DRAINING AND CATCHMENT SURFACE
which allow water infiltration into the ground, leading the excess into a channel made of polypropylene boxes located under the bike lane.

LANDSCAPED / GARDENED SURFACE
which provides shade to the street in addition to making it more natural. The cistern has been calculated to be able to store rainwater for watering the different plant species that compose it, reducing water consumption from the main network.



Sidewalk with permeable stone pavement and underneath, draining gravels

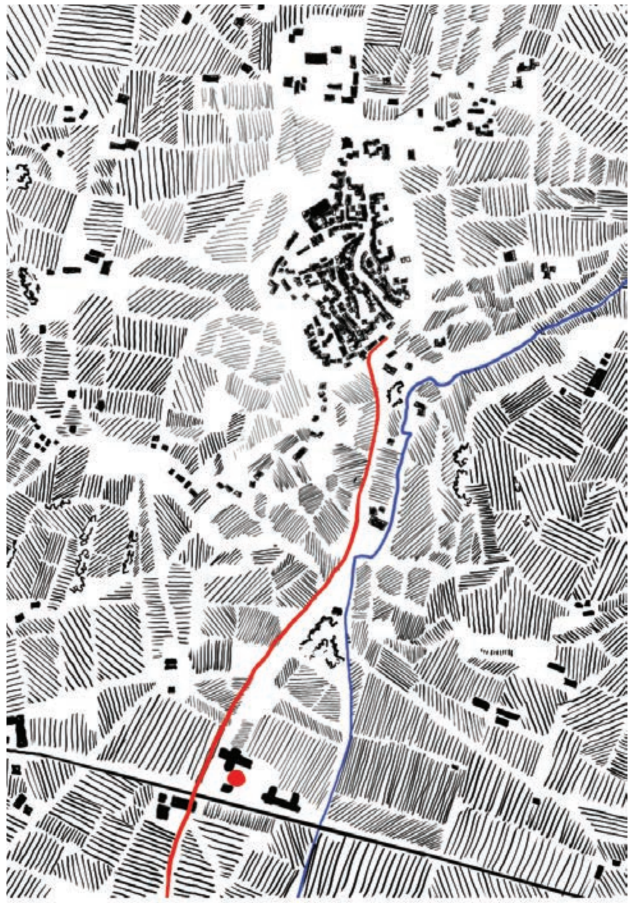
Bituminous roadway

CISTERN / WATER TANK to store rainwater and reuse it for watering green areas.

Walkway zone with ceramic pavement

DILA CICEK _ LUCIA CÓRDOBA IGLESIAS _ PARASKEVI SYNODAKI _ MANON VIÉ _ MYRSINI VLACHOU (2026)

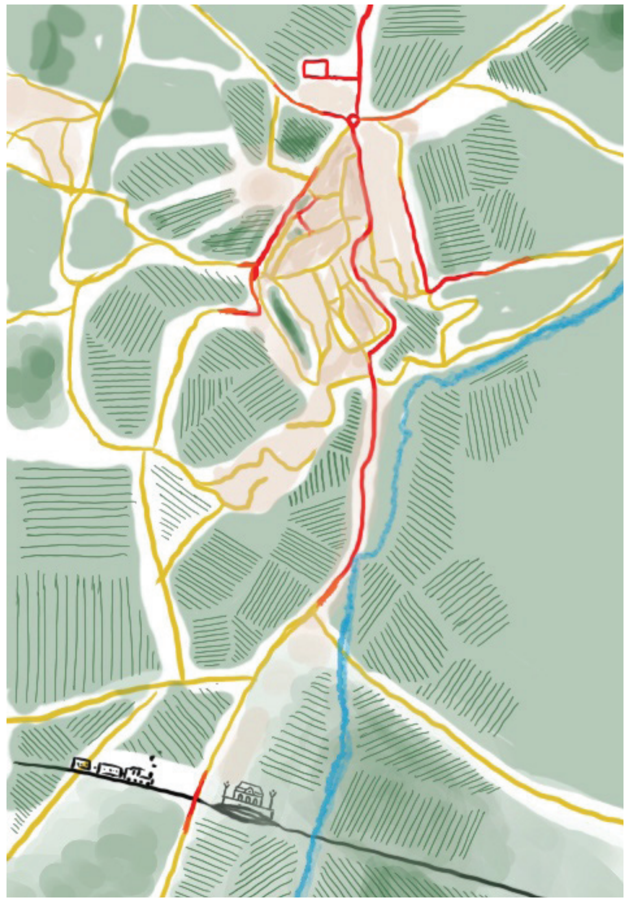
Project: Water in St Emilion - Connecting the train station to the town center by redeveloping the area around the Fongaband



N

0 250 500

- Existing pathway along the road
- Footprint of the Fongaband stream
- Saint-Emilion train station



N

0 250 500

- Heavy traffic flow
- Moderate traffic flow
- Low traffic flow

This project aims **to strengthen the connection between the train station and the town centre** of Saint-Émilion, drawing on the presence of **the Fongaband stream** as a structuring element of the landscape and the urban route.

Today, pedestrian journeys between the station and the town are made primarily along the road, in conditions that are **neither comfortable nor always safe**. The project therefore proposes **the creation of a dedicated pedestrian path**, more legible, more pleasant and safer, by restoring space to the stream and its surroundings, including through the reorganisation of existing land uses and, where necessary, intervention on adjacent private land.

Beyond improving soft mobility, this approach also aims to restore **the ecological quality of the Fongaband**. The revegetation of the riverbanks and surrounding areas will help **recreate plant and aquatic continuities** that benefit local biodiversity, strengthen **natural water infiltration**, and reintroduce **a higher-quality landscape presence** along the route.

The project thus seeks to **re-establish a connection between the town and its watercourse**, which is currently neither visible nor valued. By restoring water's place in the urban landscape, this intervention will contribute to improving the quality of life, reinforcing the landscape identity of the town's entrance, and offering a more welcoming arrival experience for both residents and visitors.

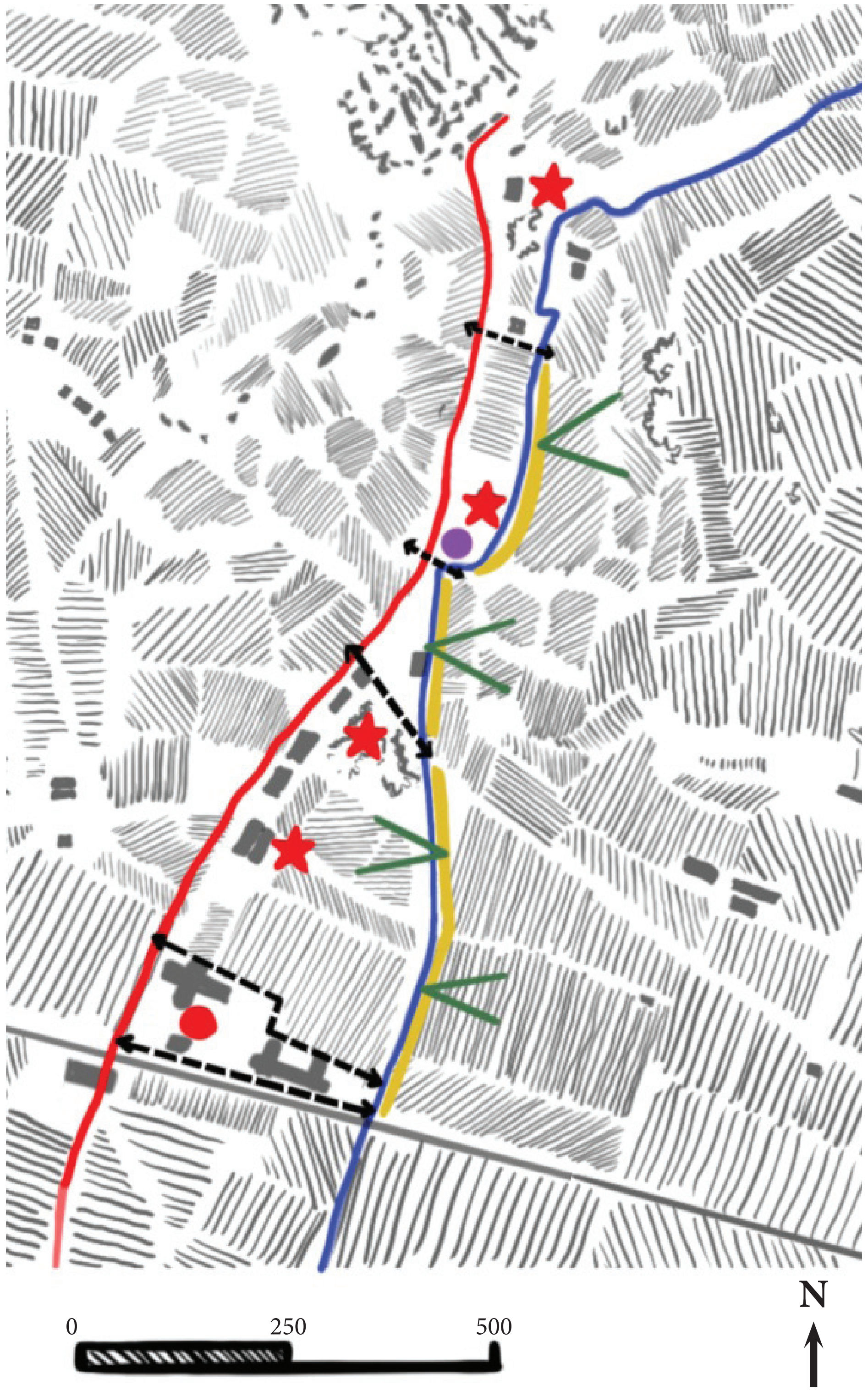
Through this requalification, the Fongaband becomes not only an **ecological support**, but **a true guiding thread connecting** the train station to the historic heart of Saint-Émilion.

Before

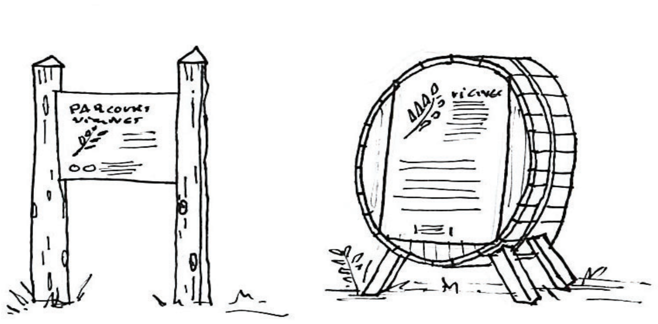
After

ÉMILIE AUDOUIN _ LAORA DURAND-BIGORIE_ CLÉMENT JÉGO _ MANON JOOS _ CLAIRE MARTINEZ (2026)

Project: Water in St Emilion - Connecting the train station to the town center by redeveloping the area around the Fongaband



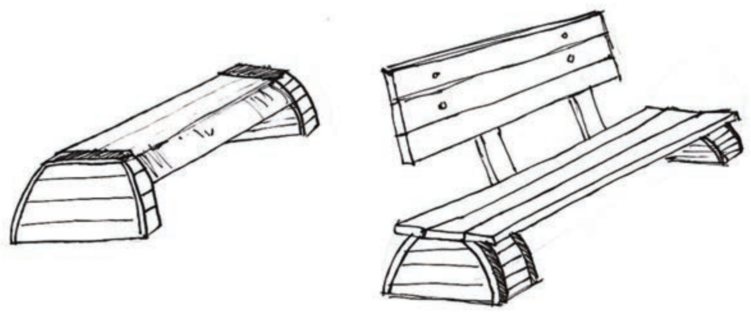
- Old mills
- Viewpoints and information on the vineyards
- Creation of the raised walkway
- Toilets
- Train station
- Cross connections between the street and the pathway



Information panels

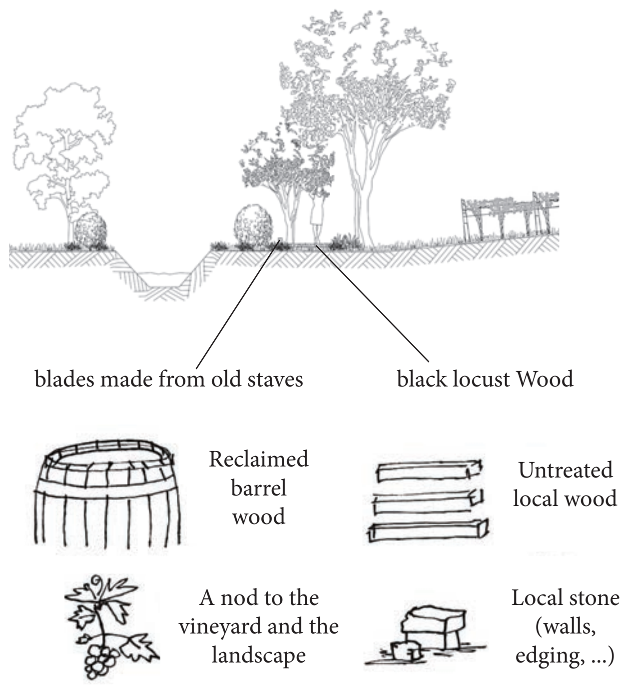
dry toilets

Drinking water fountains

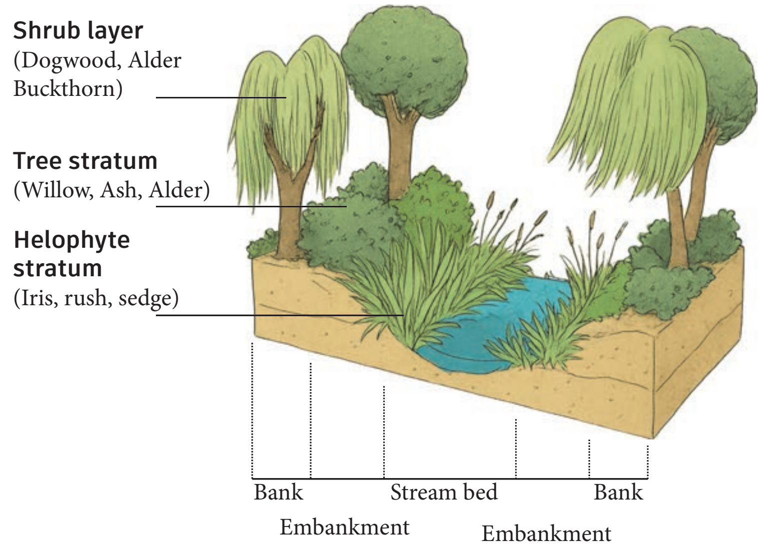


Seating areas

old mills



Materials



Plants

ÉMILIE AUDOUIN _ LAORA DURAND-BIGORIE_ CLÉMENT JÉGO _ MANON JOOS _ CLAIRE MARTINEZ (2026)