

From Rust to Roots: A New Narrative for Fumel

Re-Sourcing the Past: From Landscapes of Extraction to Landscapes of Possibility

Stretching along the bends of the Lot River, the former steel factory of Fumel sits as a monumental trace of an industrial era that transformed not just the local economy, but the very fabric of the valley. For nearly two centuries, Fumel's rise was bound to the presence of three essential resources: the mineral wealth drawn from nearby lands, the power and transport offered by the Lot River, and the human ingenuity of generations of workers who forged steel at the heart of this rugged landscape.

This place's industrial metabolism depended on the dynamic flows of energy and materials: the river cooling machines and carrying goods, the rolling hills supplying ore and limestone, and the rail and road networks connecting Fumel to wider markets. These resources once made the site a center of production, shaping a landscape of heavy structures, monumental workshops, and layers of infrastructural scars embedded in the valley's topography.

Yet long before the first furnace was lit, the Lot valley's fertile soils and abundant waters sustained agriculture, crafts, and cultural traditions that continue to define the region's identity. Even today, the valley is a mosaic of orchards, vineyards, forest patches, and small villages; a living record of the land's generosity and the resilience of its communities. As the 21st century unfolds, these enduring resources — fertile land, rich biodiversity, deep cultural memory, and the quiet persistence of the Lot's flow — remain vital foundations for imagining new futures.

Now, after decades of decline and a definitive halt to steel production in 2018, the factory lies dormant. Polluted soils, rusting skeletons of workshops, and a fragmented urban fabric testify to the wounds of industrial extraction. Yet these same conditions offer opportunities to reframe Fumel's relationship with its landscape and heritage. The site's vast scale, riverside location, historical layers, and latent ecologies can host **a new metabolism: one that aligns human life with regenerative cycles of nature, social equity, and contemporary forms of production and knowledge.**

In this shifting context, Fumel stands at a crossroads between past and future: will its abandoned heart remain a symbol of loss, or can it become a catalyst for ecological, cultural, and economic renewal — a place where the energies of river, soil, memory, and community converge once again?

A Healer and a Catalyst: From Rust to Roots

From Rust to Roots envisions Fumel's former steelworks not as a relic frozen in time, but as fertile ground for a new metabolism of life, memory, and innovation. This proposal transforms a scarred industrial landscape into a dynamic commons — **a place where humans and non-humans coexist, where histories of labor and extraction are honored but reimagined, and where regenerative processes heal both ecological systems and collective memories.**

This vision sees the factory's monumental ruins and the Lot River's meandering flows as anchors of a **renewed landscape network: vibrant ecologies, productive spaces, and connective routes stitching Fumel back to its valley, towns, and communities.** By layering strategies for soil and water remediation, biodiversity enhancement, adaptive reuse of heritage structures, and sustainable energy production, the proposal creates a resilient socio-ecological system rooted in the site's existing resources and emerging potentials.

The renewed Fumel becomes a place where diverse programs intersect: educational centers exploring industrial heritage and environmental stewardship; research hubs testing circular economies and regenerative materials; cultural venues celebrating local identity through arts, gastronomy, and shared traditions; and eco-tourism infrastructures connecting visitors to the Lot valley. These interventions weave Fumel's past and future into a living landscape of possibilities, fostering new narratives of care, solidarity, and creativity.

A Process-Oriented Framework: Phased Transformation as a Living Metabolism

In an age of escalating climate crises, resource depletion, and deep social fractures, Fumel demands more than preservation or beautification. It calls for radical reimagination — an entanglement of memory and potential, where past and future converge in a regenerative project of healing and hope. Just as living systems decompose and transform to nourish new life, *From Rust to Roots* treats the site as a living metabolism, unfolding through three phases: **Remanence & Recognition, Recomposition & Reclamation, and Rebirth & Regeneration.**

Each phase integrates strategies for ecological restoration, material reuse, and community engagement, creating a landscape where soils heal, biodiversity flourishes, heritage structures host new uses, and communities shape a shared future. This phased approach is not just a design tactic but a necessary framework shaped by ecological repair, economic realities, and social healing. By sequencing interventions, the project builds early momentum and income streams — from eco-tourism, research, and cultural events — funding ongoing remediation and transformation. Phasing also allows time for soils to recover, communities to build trust, and programs to adapt flexibly over time.

The framework embraces **process-oriented design** as both method and philosophy: recognizing that landscapes are never static, but evolve in dialogue with natural processes, climatic changes, and shifting social dynamics. Through co-creation with local communities, stakeholders, and non-human life, each phase becomes an opportunity to repair, reclaim, and reimagine Fumel as a place where collective futures are nurtured alongside restored ecologies.

Phase 1 — Remanence & Recognition: Honoring What Remains, Preparing for Renewal

This initial phase begins by carefully listening to the site: reading its scars, residues, and silent testimonies. Remanence means embracing the emotional, material, and spatial traces of Fumel's industrial past — rusting structures, polluted soils, workers' stories — recognizing these as both memory and latent resource. Recognition turns this reading into action: mapping pollutants, analyzing existing structures, identifying materials for reuse, and cataloging heritage elements with cultural or educational potential.

Key strategies include:

- **Selective deconstruction guided by flood risk:** Prioritizing the removal of buildings closest to the river, reducing site density toward the Lot's edge to minimize flood hazards and create space for riparian forest recovery. This opens corridors for water flow and natural habitats, reconnecting the river's ecological processes with the site.

- **Adaptive preservation of key heritage structures:** Retaining iconic elements such as the Watt machine hall, water tower, and director's house to serve as anchors for memory, future cultural programs, and visitor facilities.
- **Early activation of income-generating programs:** Launching the first phase of the solar farm; beginning sales of salvaged materials and metals; and opening the Watt machine complex and surrounding public realm as an industrial heritage museum.
- **Phytoremediation as a productive strategy:** Planting fast-growing, pollutant-absorbing species like willows and poplars both as remediation tools and as a source of biomass or wood products that can be harvested and sold, generating income while initiating soil healing.
- **Temporary uses for visitors and workers:** Setting up a basic hostel or guesthouse in preserved buildings to accommodate heritage tourists, researchers, and volunteers involved in the first steps of transformation.

These interventions transform passive ruin into an active landscape that generates early revenue, restores natural functions, and sets the stage for regeneration.

Phase 2 — Recomposition & Reclamation: Incubating New Programs, Weaving Routes of Renewal

Building on the groundwork of recognition, the second phase focuses on creative recomposition and active reclamation. Recomposition reshapes what remains into new spatial, ecological, and programmatic configurations, while reclamation activates the site through diverse programs that seed a resilient, multifunctional landscape.

This phase marks an **incubation period** where programs aligned with four renewed landscape routes — local production, agriculture, civic & cultural life, and nature preservation — begin to emerge:

- **Local production and energy route:** Expansion of the solar farm into newly cleared areas continues generating renewable energy and income, while large industrial buildings like the Atelier Usinage are transformed into pilot **green data centers**, testing 21st-century industries that reuse the robust shells of the 20th century.
- **Agricultural route:** Fields under phytoremediation grow as soils heal, while agri-ecology programs begin to convert parts of the former industrial park into productive vineyards, orchards, and gardens. These host educational workshops, gastronomic experiences, and small-scale local food production, establishing an **agri-ecology park**.
- **Civic and cultural route:** Community-focused spaces open, including a **community kitchen**, **socio-medical center**, and **art school**, while preserved industrial halls like the BMD are adapted as an **auditorium** for performances, lectures, and community events. The museum trail extends into areas like the Eiffel Hall and Atelier Usinage once deconstruction subsides, broadening public engagement with the site's heritage.
- **Nature and geography route:** The **riparian forest** along the Lot river is repaired with the help of volunteer stewards, restoring a critical ecological corridor and enhancing biodiversity. Recovered habitats become living laboratories for ecological education and stewardship programs.

Supporting these programs, **the site's old rail network is transformed into a water distribution system** for irrigation, new plantings, and constructed wetlands — a blue-green infrastructure uniting diverse uses. This phase creates a landscape of overlapping programs growing alongside restored soils, ecologies, and reimagined structures, all interconnected by renewed routes.

Phase 3 — Rebirth & Regeneration: Flourishing Futures and Adaptive Continuity

With soils healing, habitats reestablished, and diverse programs seeded in earlier phases, the third phase celebrates the emergence of a thriving socio-ecological landscape. Here, **regeneration** marks both the natural and cultural climax of the site's transformation: soil decontamination fields transition into vibrant biodiversity meadows, wetlands, and woodlands, fully restoring ecological processes and enriching the site's habitats. The riparian forest along the Lot matures, creating a continuous corridor of native flora and fauna that stabilizes riverbanks and expands regional ecological networks.

In parallel, the programs introduced during Phase 2 — spanning renewable energy production, agri-ecology, gastronomy, arts, education, community services, and new industrial pilots — are carefully evaluated based on participation, economic viability, and environmental impact. The project's **process-oriented, adaptive design framework** ensures flexibility: successful programs are scaled up and made permanent, while underperforming or misaligned uses are adjusted or reimaged in dialogue with the community, ensuring the site remains dynamic and responsive.

Concrete outcomes may include:

- **Mature ecological systems:** thriving wetlands, woodlands, pollinator meadows, and riparian buffers sustaining rich biodiversity and providing critical ecosystem services.
- **Consolidated cultural and civic hubs:** programs like the Culinary School & Agricultural Innovation Center, Slow Food Pavilion, Makers' Market, Museum of Industry, Art School, and regenerative community spaces becoming stable anchors of economic, educational, and cultural activity.
- **Sustained production landscapes:** viticulture, agroforestry, and gastronomy programs integrated into the park's structure, supported by resilient soils and restored hydrological systems.
- **Permanent energy infrastructures:** fully operational and expanded solar farms, with redundant industrial roofs repurposed as platforms for energy and water harvesting.
- **Interconnected mobility and interpretation systems:** elevated museum and visitor trails, bike paths, and accessible walkways tying together ecological, industrial, and cultural destinations across the site.

As new uses stabilize, co-management structures involving local associations, municipalities, and stewards ensure the site remains a **living commons**, continuously evolving in step with social, ecological, and economic shifts. Here, Fumel's industrial heart completes its metamorphosis into a resilient landscape of possibility — a regenerative, inclusive, and hopeful model for 21st-century territories.

From Rust to Roots, a Regenerative Model for Fumel and Beyond

From Rust to Roots transforms Fumel's abandoned steelworks from a symbol of decline into a living testament to resilience, care, and creative adaptation. By turning a site of extraction into fertile ground for ecological renewal and cultural expression through phased, process-oriented strategies,, it demonstrates how post-industrial territories can reconnect communities with landscapes, fostering social, economic, and environmental vitality.

Here, rust signals not just decay, but the promise of transformation; and roots do not merely reclaim the past, but branch into futures of shared, thriving possibility.