

Kleine Emmie &The Others

Adaptive Reuse of the Intangible Resources

The industrial zones are usually perceived as lifeless areas with no identity. Littauerboden has, however, a very distinctive and strong productive identity and history. Resourcing and adaptive reuse is not only about physical structures, but goes way beyond. It is about activation of the already-present, reviving the forgotten knowledge, unvalued routines, overlooked structures and underused land. The soil of Littauerboden keeps the memory of wilderness, energy, human labor and transformation. We choose not to erase this legacy—but to embrace it. We have lots to build upon - gravel lots and embankments with some ruderal ecologies, vast open ground for logistics, low density industrial boxes and wide streets - everything has a potential when re-read with care.

Our site conditions are very specific with slopes and river forming natural barriers on one side and the infrastructure and industrial areas further obstructing the connectivity. Kleine Emme is practically cut off from the city and from the neighbouring biotopes. This is our challenge n.1 - we should be able to have a pleasant promenade along a renatured riverbank.

Another barrier for the development of the area is the monoculture - both in terms of cultivation and labour market - the distinctively industrial area results in very specialized industry jobs, excluding many from the area. The lack of cultural happenings, events and openness to the society make the site even more introverted. Thus, we see our next challenge into shifting from a monoculture suburb into a diverse cultural hotspot.

The Method

How much land does biodiversity actually need?
Where is water retention critical?
Which areas are overheating?
Where is the best productive yield?
How many people are good enough for a strong, self-sustaining community?
How many are needed for the economic viability?

Is there an objective method to determine what is the best for each single piece of land, its ecosystem, people, enterprises?

In order to have some objective data we divided the site into 150×150m plots and ran simulations on radiation, slope, rain accumulation, wind and biodiversity potential (with the new Rhino.Ecologic tool). We collected data on the existing resources - both physical and intangible. Soil memory is part of the system—we build on what the ground remembers. Former use, history&transformations, compaction, contamination, fertility, burred water canals — all become parameters that inform our planning.

We map the critical habitats needed by target species, then establish spatial parameters—minimum patch sizes, connecting corridors, and protective buffer zones—to create a viable ecological network. Urban development is strategically positioned in the remaining spaces between these ecological requirements. At key network nodes, we integrate new cultural programming designed to enliven and activate these strategic locations.

We identify locations where people genuinely want to live and conditions that support inhabiting. We organize these into walkable and bikeable clusters, each with local focal points and intersecting daily patterns. The spaces between clusters are dedicated to cultivation and productive activities. We pinpoint areas crucial for production systems and secure the logistics and mobility networks that connect them. We identify activation thresholds—edges, rooftops, underused surfaces—that can be intensified and opened to urban life. From these elements, we develop an integrated scenario that is both ambitious and achievable, where ecological, social, and productive functions support rather than compete with each other.

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The site operates as four interconnected layers: nature, production, living, and culture. Each area is precisely calibrated—some emphasize natural systems through buffer zones, wild margins, and spontaneous growth areas. Others prioritize production through advanced farming, food forests, and circular resource flows. Some focus on habitation through compact, well-connected neighbourhoods facing green space. Others activate cultural life through gathering spaces, recreation, and collective activities.

Every plot weaves together all four layers—nature, production, living, and culture—creating overlapping territories that continuously negotiate and adapt to changing needs.

The Landscape Mosaics

We study carefully the existing biotopes, potential connections and target species identified for the City of Lucerne and Agglomeration, the Valley of Kleine Emme and the Central Hill country. From this research we come up with a landscape mosaics consisting of 4 umbrella categories: natural, ruderal, cultivated and curated.

Re-natured landscapes

Some areas just need to go back to their natural, un-engineered state. We should be firm on this. Places that were transformed due to the industry will now be re-natured again. The industry was also transforming all this time and it will ultimately be modernized, automated, compacted. Some places next to natural biotopes will benefit from unmanned production.

target species for agricultural woodland corridors, hedgerows and forest edge habitats: Bufo calamita Eptesicus serotinus Coronella austriaca Alytes obstetricans Corvus monedula Various pollinators Small mammals

for wetland and riparian ecosystems: Unio crassus Netta rufina Natrix natrix Alytes obstetricans Alytes obstetricans

Ruderal landscapes

Some species thrive on disturbed anthropogenic or broken ground with little organic matter. Our strategy is a minimal and cost-efficient intervention to the industrial sites, railway embankments, paved areas and roadsides to form ruderal communities.

target species: Centaurea pulchellum Herniaria glabra Polycarpon tetraphyllum Trifolium fragiferum Ranunculus sardous

Cultivated landscapes

Some species are attracted to flowering crops and wildflowers. Our strategy is to introduce diversity and crop rotation to the existing fields and form new, productive living clusters at the existing urban edges, linked with community gardens, orchards, existing and new greenhouses. Low-tech cultivation practices + high tech agriculture.

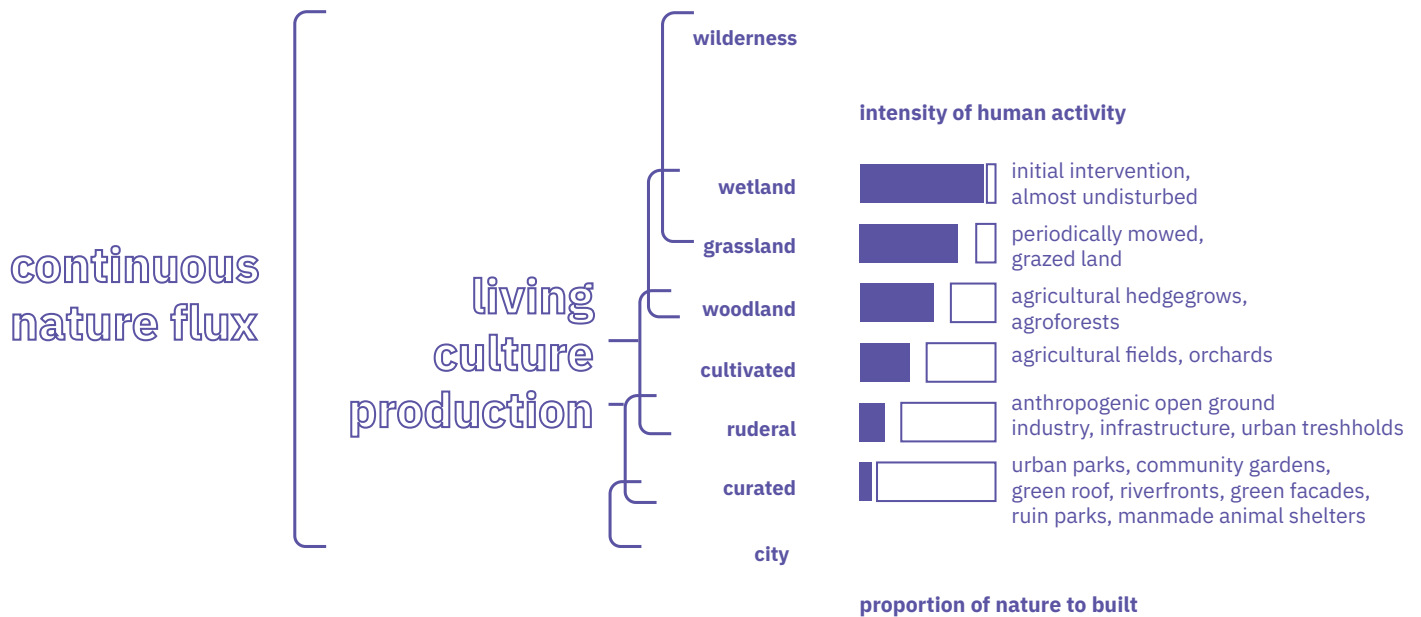
target species: Ranunculus arvensis Silene noctiflora Valerianella dentata Potamogeton helveticus Ceratophyllum demersum

Curated landscapes

Some species thrive in proximity to humans. In spaces that currently lack urban quality, we introduce some love, care & and new cultural program. Green roofs with dry-tolerant vegetation and calcareous gravel areas, ensuring connectivity between green rooftops and tree-lined streets, preserving old walls and structures as ruin-parks. Introducing urban green pockets, installing animal shelters such as bat boxes and bird nesting sites on buildings community gardens, parks, and orchards near residential areas

target species: Eptesicus serotinus, Corvus monedula, Natrix natrix

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Phase 1: Renaturing. Ground First, Life Follows

Population: + 130 residents
Jobs: + 150 workers

We begin by opening the ground—literally and strategically. Where feasible, asphalt surfaces are removed. What emerges is not costly designed landscapes, but pioneer ecologies: gravel beds, sandy patches, loose soil substrates. These low-maintenance, open-ground conditions invite hardy vegetation and adaptive species—the vanguard of returning biodiversity.

Key Moves:

- Ruderal zones introduced along rail tracks, logistics yards, and decommissioned parking.
- Kleine Emme renatured: its banks softened, tributaries daylighted, and a new riverside path introduced.
- Streets are optimized, first using tactical urbanism then by structural interventions.
- Compacting ground-level parking via automation to free up land.
- Landscape mosaics emerge—wild, ruderal, cultivated, curated.

In productive areas, we reestablish agricultural cycles and ecological farming: rotating meadows, fruit orchards, extensive grazing alongside intensive pastures, and controlled-environment growing. These integrate with designed green interventions—living walls, productive rooftops, and planted terraces. One strategic move is the Biodiversity Corridor adjacent to the planned station—a green spine connecting forest patches and habitat zones. By the time rail service arrives, this space will already be thriving, cherished, and exemplary of infrastructure-integrated ecology.

Phase 2: Urban Densification. Productive Living, Cultural Production

Population: + 2'300 residents
Jobs: + 800 workers

We apply industrial logic—efficiency, stacking, multi-functionality—to urban densification. No land remains underutilized.

Key Moves:

- Rooftop densification of existing department stores, introducing mixed-use housing, rooftop greenhouses, and a farm market with a zero-km bistro.
- Vacant plots near the Littau rail/bus node are reimagined as productive residential clusters: housing over orchards, co-living beside cultivated fields.
- Around existing sports infrastructure, we introduce hybrid housing: live-work spaces organized around shared courtyards. Units open onto green, pedestrian streets where recreation and

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production intersect. These new neighborhoods function independently while benefiting from Littau station proximity and anticipating future Ruopingen station access

Phase 3. Modernization & Automation: Industry Meets Public

Population: + 450 residents
Jobs: + 400 workers

We approach modernization as transformation rather than elimination. Industries will automate, consolidate, and evolve, releasing land and resources for broader community use while strengthening their operational identity.

Key Moves:

- The Crane Park: a bold example of how logistics automation can give back space. Outdoor storage becomes a renatured terrace park beside the river, framed by a vertical logistics green wall.
- Adaptive reuse of selected steelworks building parts, allowing for coliving of operational industry and community—cafés, coworking, public events.

The modernization process becomes visible and compelling. Littauerboden evolves into a cultural and productive district Luzern can celebrate—where industrial equipment, recreational courts, community spaces, and renewable energy systems coexist.

4. Phase 4. The Arrival of New Station: Slope as Salon

Population: + 120 residents
Jobs: + 200 workers

The incoming station functions not as disruption, but as connection. Carved into the topography, it transforms a barrier into a community living room—a multi-level public space.

Key Moves:

- Station salon: terraced plaza with panoramic views, a covered deck, F&B, coworking, retail, and ateliers.
- Multilevel mobility hub below: trains, bike station, compacted parking.
- Further densification around the area.

Littauerboden's transformation operates through four interconnected systems: nature, living, production, and culture. Nature provides the foundation—restored grounds, pioneer ecosystems, and cultivated landscapes. Living follows, embedded within productive landscapes through housing that balances proximity with permeability. remains visible but evolved—modernized, automated, and integrated with residents' daily lives. Culture is not institutionalized but woven into routines—from community gardens to repurposed industrial spaces and neighborhood recreation facilities.

Within this framework, sports and wellness shift from private consumption to shared practice—an urban cultural expression where swimming, tennis, or walking the elevated deck become moments of connection, visibility, and collective rhythm.

Littauerboden embraces its identity rather than concealing it. Spaces are reclaimed and reshaped while nature is invited back in.

Littauerboden doesn't hide what it is. Spaces are reclaimed, reshaped and nature is let in. It's not a tabula rasa—it's a mosaic landscape, where steelwork meets soil, cranes meet joggers, and orchards meet innovation. Here, living is layered, and the future is not only human!