A non-binary ecology

Enhancing the non-conforming

Much of society's thinking operates in a highly rigid and binary manner: something is good or bad, right or wrong, a success or a failure, and so on. For what concerns human settlements, the categories of urbanity and rurality have lost their heuristic potential to describe the most contemporary forms of urbanization. In fact the so-called 'peri-urban', can hardly be confined to the reassuring margins of a rigid definition. This form of settlement and its inevitable consequent social practices may be the dominant reality and the main spatial planning challenge of the twenty-first century.

Starting from this awareness, with the expression 'non-binary' we want to refer to all the matter that lies between two opposite definition such as urban/rural, soft/hard, organic/humanmade and so on. Actually, we want to focus on all the gradualities that stand between the two extremes, enhancing them at all design scales to reveal and appreciate their hidden potential and to respect and give identity to these promiscuous landscapes. In this frame, the site of Namur Sart Hulet, silently standing between contrasting opposites, offers the opportunity of an original urban development, showing itself as a non binary context.

The area clearly displays all the typical ambiguities of a peri-urban context: single family houses compounds, dependence on transportation, absence of centralities, unused sealed spaces or large green surfaces, big abandoned post industrial buildings, fragmented communities and lack of spatial governance. In order to foster socio-spatial change and environmental conservation, the dualistic idea of a countryside in the gravity of a big urban center should be discouraged.

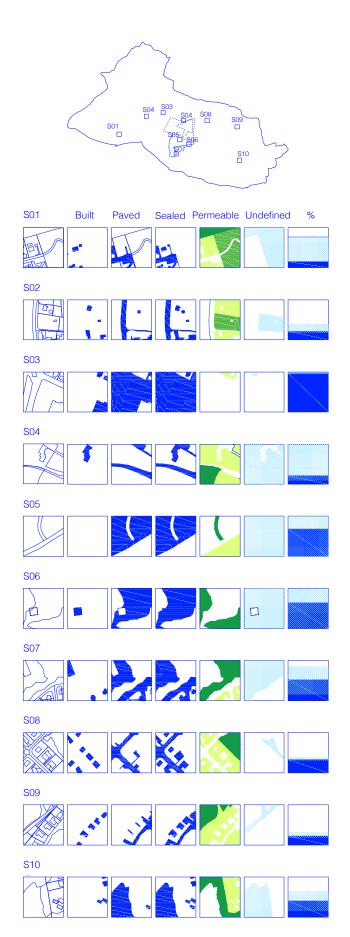
This belief supports a simplified idea of relation as a hierarchy, which closes the boundaries to other forms of order that actually exist in nature.

With this 'non-binary' lens we read the context giving space to the neglected corners and the apparently informal elements: the edges of the fields, the unused sealed surfaces, the abandoned lands after exploitation, the forgotten spaces between different properties or along the roads.

Through this operations we considered a wider range of ingredients than a classical urban study and gave it a new meaning. In fact all this micro spaces - if well highlighted and connected - can easily become a substrate to sustain and support future uses and developments, and most of all, structure a more concious appropriation of the natural realm. This 'third landscape' - meaning an enhancement of spontaneous colonization leading to the creation of microhabitat for different species - gains a political and communitarian dimension: a territory for diversity, inclusivity and sharing.

To enable a flexible and adaptable result, our work aims at the individuation of rules and examples more than a rigid and punctual intervention. In fact we structured our proposal through some guidelines that we deepened through the design case studies.

'Enhancement of the non-conforming', 'Zero Net land take' and 'Conscious domestication' are the three rules that guide all the design process and hopefully the future of Sart Hulet site.



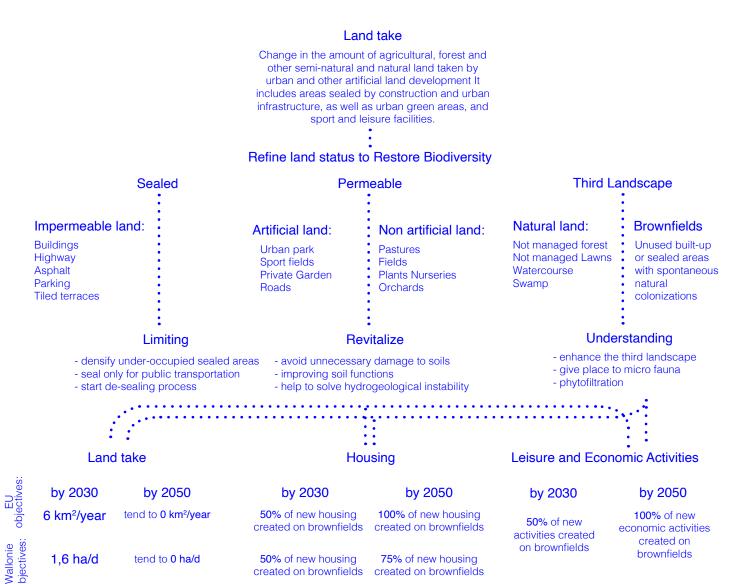
Zero net land take 2050

To respect the biodiversity and to help a new careful development we focused on land. It is the ultimate common resource and it provides the majority of the needs for flora, fauna and humankind. Its nature of being moldable, ever present, passive and somehow highly exploitable, made it one of the main over-abused resources on the planet.

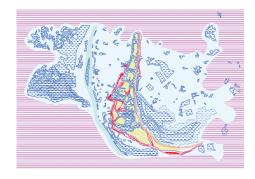
Moreover, urban sprawl is a prime example of the tragedy of the commons, and abuse of the open landscape. This typology of settling and the consequential living style that it creates benefits only private property, land parcelization, landscape fragmentation and individuality. Valuable permeable land is built over, the surface of the ground is sealed and most ecological functions of the soils are destroyed.

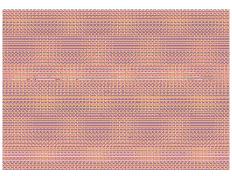
Nevertheless, the majority of the land characterized by sealed and exploited soil is formally and functionally undefined, neglected and misunderstood. It lays exactly in the non-conforming grey area between human-made and natural, built and unbuilt, urban and rural.

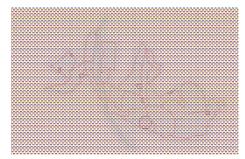
As many realities that stand between two opposites, this non-conforming landscape is forced to 'take a decision. But we chose to respect this uncertainity and to give these spaces to the third landscape and we preferred to leave it as much permeable as possilbe instead of building on it. According to the European Commission and more precisely to the *No Net Land Take 2050* program, the land take should tend towards 0 km²/year in 30 years by focusing on de-sealing strategies and development or derelict or underused areas.



The third landscape and the microelements







The territoritory offers the opportunity to install a landscape palimpsest that has the ability to drive the different actions and strategies.

Looking at the land we want to reflect upon a new ratio between sealed and permeable soils and, moreover, to provide spaces for new synergies between human and non-human beings.

First, we focused on bio-morphology to understand the existing structure of the human and vegetal settlements, to build a dialogue with them and to enhance them. We identified a sequence of vegetal masses and green clearings that work as a serie of natural rooms. This geographical configuration allowed us to insert the Sart Hulet site in a larger system and to make the new area work with the whole city.

Therefore we propose to complete these already existing sequence through some new vegetal masses made of groups of protected species such as beech trees, oaks, elms and chestnuts which are actually native specimens of the Wallonian landscape and in need of preservation.

Together with some new third landscape corridors that sorround the Sart Hulet area we establish a permeable and livable border that gives a buffer natural zone for acceses and entrances.

In addition to this reinforced territorial vegetal structure we suggest a new network of running tracks and cycle paths organised through closed rings that intertwine themselves in a strong yet respectful slow-mobility structure. This enables a sustainable and contextual connection to the valley and it brings together a set of new spots for different uses. Infact, the tracks are supported by a system of microelements made of light structures, unsealed platforms and urban furniture, that emphasize the contact between human beings and biodiversity, enabling a new coexistence and unexpected harmonies.

Desealing operations become another fundamental act to reestablish an appropriate ratio between permeable soils and sealed surfaces. We collected several examples of permeable surfaces that can also accommodate human activities and we presented them as an abacus of possibility to adopt in different situations.

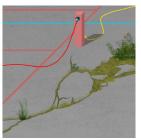
These interventions help to accomodate microhabitats for impollinators insects, spontaneous flowers and herbs, enabling a spontaneous natural colonization of the brownfields and military relics. All the solutions are adopted in the ex-military site giving space to a third landscape park. Through the seeding of agricultural, floreal and meadow mix we identified different areas connected through walkways and activated by microelements. In fact, with light canopies, wooden structures or metal grates that serve as wildlife shelter, energy stations or compost collector we can encourage actions such as observing, dipping or stopping and thus re-establish a contact with the landscape without damaging the soil and the natural context.

In this substrate the velodrome takes the place of the former hangar which is superposed by a superstructure outside and equipped by devices inside. These elements together with a soil variety pattern, enable and accommodate different uses. The classical oval form is broken and articulated by small cuts and elements that help in defining a flexible environment that offers seats and open space for events or market activities. The inner space can welcome programs for the community and it accessible through two light structured bridges. A side volume device made of water tanks and technical rooms gives the energy and services to complete the velodrome machines and, moreover, it gives the possibility for an aquaponics greenhouse on top of it. The velodrome constitutes a catalyst for the running and bike tracks that spreads all around the landscape and it becomes a marker in Sart Hulet site, with a superposition of programmes and a multiple performativity.



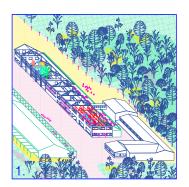








Adaptive and conscious domestication









To mitigate and limit soil consumption we want to meet the regional requirements: we focus our attention on the existing infrastructures reimagining their use through the introduction of micro and macro elements (stairs, cabinets, pumps, ramps, services, roofs, bridges, greenhouses...) which work as devices at the service of the old structure.

For what concerns the programmatic approach the strategy aims to blend programmes and activities and to avoid an extremely sectorial configuration.

Existing structures welcome multiple opportunities if well equipped and managed, and every operation has to convey a varied range of uses to reach a mixité of uses and users. Thus we propose to integrate residential, working, productive and leisure spaces in the existing buildings enabling new dynamics and non-binary uses and avoiding functional segregation and fragmentation.

Dwelling interventions are driven by flexibility and adaptability towards possible futures development leaving space and time to unexpected futures.

Facing land take and sealing processes by the adoption of permeable soils and third landscape capsules, the aim is to reinforce multispecies coexistence, familiarizing relations between species and rethinking the public space through performative spaces. Traveling the site from south to north we meet 3 different examples of possible interventions on existing buildings and the construction of a new condenser that meets varying needs and expectations.

1. The Learning Center

Blending its original soul to the contemporary needs and features of the area, the former classes and ateliers building opens up to the community and to non-human forms of life. The learning center is composed by three volumes that work together but are also autonomous: the bio-theatre, the growing station and the learning core. The bio-theatre is designed emptying the space and reaching a compromise between wild and domesticated thus enabling human and non-human interactions. It is an exterior covered hall, slightly protected by curtains that provides shade and shelter for vegetal and animal species. The growing station accomodates research machinery and spaces, a plants nursery and a big hall for events and conference to share the knowledge and spread awareness about biodiversity richness. The core is in fact the most rigid structure and in our proposal it welcomes all the needed spaces for administrative and educational activities such as offices, classrooms, technical spaces, storages and services for the users.

At the top floor all the units are connected through a common terrace which overlooks the public space and serves as the main circulation space.

2. The SoHo

A set of loft-like dwelling is insert in the long warehouse building located in the South of the site, exploiting the repetitiveness and seriality of the existing structure.

The housing unit is composed by a mezzanine structure that divides the atelier or spaces for immaterial work from the more domestic space and accommodates all the needed spaces for both: welcoming areas for visitors, personal and work storage, kitchen and a bathroom. Some communal spaces are provided at the centre, leaving a covered exterior hall dedicated to spontaneous natural appropriation and social activities. On top of that, green houses can be installed, colonizing the rooftop with a new common area.

3. The Adaptive Tower

Thought as a purely flexible building, the adaptive tower is designed as an example of densification of the least amount of land with the best result in terms of inhabitant-to-land ratio. In fact it is designed as a condensation of the units which can face the urban sprawl that is all around. Different scenarios are taken into account in case of budget or inhabitants scepticism: from an intensive occupation of dwelling and workspaces to a purely representative use as an observation spot Nonetheless, being the only new building intervention, it is thought as a multipurpose container that can accommodate different uses avoiding rigidity and functional monotony: dwelling, immaterial and material production.

4. The Communal Farm Residency

The communal farm is thought of as a receptive structure that blend together some features from a guesthouse to a small community center. In fact, bringing the military museum complex back to its original soul, the aim is to allow more domestic uses as well as to offer services to the surrounding community.

A half of the structure is organised through duplex dwellings made of a common ground floor and small single units at first floor.

Each of these unit is equipped with a bedroom, kitchen, bathroom and storage space. The other half of the farm made of bigger volumes is equipped with added mezzanine structures to make the most of the heights offered by the existing building. Thus, it accomodates a community canteen distributed on two floors, a professional kitchen to serve and prepare meals for events, some administrative offices, and a greenhouse on the first floor area.

Two light structure complete the former building enabling new dialogues between exterior and interior spaces serving as verandas and common areas.