Aalst (BE)

Living heritage

Who has the right to the city? How can a productive city embrace adaptability and sustainability to achieve social, economic and ecological resilience? What happens when you put the green and the blue first, and existing buildings second? Are cities for people, for profit or for all living within?

The project's main idea is the weaving together of different strands of production, land uses, habitats - for people and animals in an ever-adapting tapestry centring the river Dender. As the city's backbone, the river takes a double role, an area of historical production, now abandoned, inaccessible to inhabitants due to its hard-edge character and an artificial natural urban feature. Both roles must be seen as opportunities, to create a productive centre within the city and anchor the city's major green areas on its most important landscape feature, the river. A continuous blue-green corridor is thus possible, connected to several green fingers penetrating the city and ensuring accessibility to the water. A city-wide analysis of services, public spaces, facilities for sport and recreation, and abandoned former industrial sites provided the basis for a proposed network of activity nodes spaced at less than 5 minutes walking distance. The Dender river acts again as a binding force connecting nuclei from the productive North to the green areas in the South of the city and ensuring a constant pedestrian traffic through the city centre.

Two urban toolkits are proposed rejecting the classical urban planning approach to empower private owners to collaborate and adapt to an ever changing physical and economic context. Each toolkit, the Tabula plena for urban conservation or Living quays for riverfront redesign have 12 alternatives to be chosen from based on the area of implant.

Sustainability – resource management

The project was structured to adhere to the Reduce-Reuse-Recycle sustainability principle. Flexible, mixed-use, infill development well connected, physically and psychologically, to adjoining neighbourhoods, natural features and the city centre reduces car dependency as housing, production, commercial and leisure opportunities converge. A dense urban environment with reliable local and regional transportation and good accessibility to public transit, inviting walking and cycling achieves resource-efficient land use. The Tabula plena toolkit is a recipe for building Reuse. The project proposal focuses on the first two Rs, Reduce and Reuse, as material recycling of demolished buildings is the easiest, most common approach.

Tabula Rasa

The potential of industrial buildings is given precedence for living and working developments. Rejecting the typical tabula rasa approach to industrial/brownfield urban renewal or beautification we propose a Tabula plena form of urban preservation inspired by Nan Ellin, Jorge Otero-Pailos and Bryony Roberts.

We propose a reuse intervention catalogue of 12 alternative approaches to architectural form to be used on a plot-by-plot case based on site, building, developed and function mix particularities. Each variant is accompanied by a schematic evaluation of its development cost, plot coverage ratio and floor area ratio to better inform private owners on their options.

The approaches range from a conventional repartition and re-functionalization, pruning of secondary or damaged buildings or reskinning to various forms of extending and enhancing, to even a stripping to the structural skeleton to give a physical definition to new open spaces.

Economic and aesthetic valuations would dictate the most suitable approach. The stitching of existing buildings with corridors or connective functions or a monolith unifying building is better suited for complexes with a good relation to the urban context.

Employed in similar conditions Adding and Top up differ from the previous two and each other in the value they place on the existing buildings or urban space, maintaining the building intact and reshaping the space they define through new insertions, in the case of Adding, or vertically expanding the buildings to maintain the urban space for Top up.

The Mat or Frame approach provide a new interface to the surrounding areas, through new active, open facades, while Underground and Superstructure maintain the complexes and provide additional built areas underneath or above, highlighting the buildings (Underground) or the open space (Superstructure). Each of the approaches can be used individually on an entire plot or combined to better suit each building in a given complex.

Living quays

The lack of accessibility to the river, caused by its sharp-edge type of banks, needs to be remedied to ensure its function as a living corridor throughout the city. A 12-intervention alternative toolkit is proposed structured on three themes, access to water, green areas and new functions and attractions. Each intervention alternative is scored on the three themes ensuring the optimal informed choice when mixing them along the river.

Stairs, ramps, newly created islands, and a continuous pedestrian and cycling route can be used to increase accessibility. Tree alignments, small scale green areas, islands and green quays facades help create the green corridor while swimming facilities, art installations, expo or cultural pavilions, refunctionalized ships and piers or bridges punctuate the route with activity nodes.

Sustainable mobility

The 33% of the site currently occupied by cars, for traffic or parking needs to be reclaimed while promotion and facilitation of alternative means of transit will decrease car dependency and the overall need for parking. The railway station, a mere 3-minute walking distance, can ensure accessibility both within the city and to its neighbouring communities. The new street will allow for the freeing of the shore for pedestrians and cyclists with cars allowed only for delivery. Existing pedestrian spaces are extended and enhanced with water retention features and green areas, increasing the overall green surface from 11% of neglected space to 21,5% of landscaped green areas. Cycling routes are proposed along the main street and the riverbank, a transverse route connecting the site with Pier Kornel area over the proposed pedestrian and cycling bridge. Four bicycle parking and sharing stations are also proposed, while car parking is restricted to a small surface area in the North and underground ones with charging stations along the main street. Urban mobility is not limited to goods and people, our proposal includes routes for animals and birds through the connected green areas and terraces.

Urban resilience

As we are running out of time to tackle climate change, all new developments and regeneration projects must make their contribution no matter how small. A water retention network is proposed, composed of bioswales, rainwater ponds, water squares, permeable paving and the green terraces to delay its discharge and lead it to the river. Rain and grey water collected in basins can be used for the irrigation of green areas, terraces and facades, and greenhouses and urban agriculture areas, helping local production. Shaded public spaces, together with the green roofs and facades contribute both to mitigating heat island effects while providing habitats for animals. Solar panels produce power locally to be used for buildings or charging stations.

Reinventing productive heritage

Industrial areas have always been land guzzling gluttons, taking up central areas, often close to the water, to later abandon them for cheaper land on the city outskirts with all the inconvenient traffic generated by the move. Large monofunctional complexes are vulnerable to changing markets and economic crises. What is a productive area in the XXIst century? What do we want our cities to produce? Small manufacturing or production areas from a variety of industrial branches are more adaptable and resilient to shocks. Quality public spaces and services can foster collaboration between neighbouring businesses facilitating innovation and a circular economy. Of the four major types of production, extraction of raw resources, processing, services and research most cities aim only for the more profitable ones, thus generating gentrification, overspecialization and dependency on outside markets. Throughout its history

the site has usually housed a dominant type of industrial branch, therefore we propose a mix of all typologies, food producing greenhouses, small workshops and light industry, offices and research and creative industries with an entire refunctionalized building for continued education and retraining.
IN the northern part of the site er propose a recycling centre and circular hotspot building, consisting of a covered inner courtyard, accessible for trucks, a space to process recycled materials and waste or hold flea markets, three sides for repair workshops, recycling or retailing.
A dense living environment with a mixture of residences, retail, community services, parks, meeting places, offices and other non-disruptive activities that generate life and movement throughout the day was proposed. By accommodating a variety of businesses and services, both blue and white collar, the area is neither unilaterally dependent on one industry nor caters to a single demographic thus reducing its vulnerability to cyclical fluctuations and structural changes. Providing numerous housing typologies and viable live-work opportunities ensures a diversity of future residents, income, lifestyle, age and background wise, contributing to social cohesion and an inclusive, integrated, equitable neighbourhood.
A knowledge and creative driven productive neighbourhood, our proposal weaves a dense urban environment, attractive through its range of urban qualities, integration of environmental and natural considerations, flexible in implementation and adaptable in nature, safeguarding long-term sustainable use of land, water and physical environments, from an ecological, social and economic aspect.

Historical buildings
No building should be single use but part of a dense mix of housing, services and workplaces. Existing artist studios, creative entrepreneurs, craftsmen, and businesses should expand to fill entire historical buildings not displaced as soon as the area gains some notoriety. Cultural, event spaces and services to enhance socializing, restaurants, food courts, are housed in the restored industrial heritage buildings.
Going beyond horizontal mixed-use development or the layering of functions we propose a 3D function weave. Publicly owned plots can set the stage for future development providing the first function strands to be weaved. The productive infused housing function tread, offering a wide variety of live-work options, is predominantly kept to the upper floors with an occasional greenhouse for urban farming or green roof above. Urban life-giving functions such as services, commercial, studios, co-working, light – high-tech or creative industries, small-scale manufacturing, are threaded to touch the ground and activate the proposed urban space, pedestrian streets and plazas.
Land ownership
The three landowners must form a development association, especially for the Eastern side of the proposed street, sharing the benefits, burdens, costs and responsibility. Existing users and businesses must join as stakeholders while future inhabitants can later also participate.

Local identity
To ensure a historical patrimony integration the typical fragmented, repetitive rooftops with height accent towers was reinterpreted for the proposed buildings using greenhouses to define the area's skyline. At the building scale brick facades facilitate the integration of features for plants and animals.

Living cities
For a nature inclusive design, we need a holistic vision to combine architecture with the landscape, buildings as part of the urban ecosystem. Plants and animals have always fought for their place among the cracks of the built environment. What don’t we fight for them as well? We propose a network of different urban biotopes along the green corridors unified by the Dender river. Each building can assume the role of a cliff, wooded hill, field or even forest depending on its height of type or facade. A maintenance guide should accompany each building while the local authority can provide financial incentives or tax relief to promote participation.
Three design tools can be used to ensure that each building acts as a cog wheel, playing its part in the urban ecosystem to enhance the environment for plants and animals. Variation in size and scale for

buildings, public spaces and even urban furniture cand ensure a larger variety of microclimates, wet, dry, windy, sheltered. Variety increases biodiversity, birds preferring Eastern facades to wake up with the sun rise while bats favour Western ones as they are active after sunset.

Porosity, for terraces, walls and even buildings is a key factor in housing animals and insects or allowing plants to take root. Variety in types and scale of porosity allows for increased diversity of inhabitants. The created pores become defining architectural features determining texture, rhythms, massing proportions and influencing finishing material choices.

Diversity in use, maintenance and materials can impact flora and fauna diversity as well. Not all spaces need to be catering to humans, perfectly always manicured, built to our scale and preferences. Some areas can remain wild, some we could share with our non-human neighbours.