The proposed vision for the Badel site develops an urban intervention that preserves the local identity and its urban values. Juxtaposing the new and the old in co-existing topological configurations that splits functionally the site in above and below, we achieved the suggested accommodation of 65,000 m² in new buildings above ground.

The design takes place from a deep analysis of the existing urban fabric, and the relationship between functions and speed. We are able to redistribute functions according to a chart were the fastest commercial functions, such as shops, supermarket and retail, would have been relocated on the edge of the site in direct connection with traffic and the rest of the city fabric creating economical tension and reconnecting the site to the existing fabric. Intertwined in the new created public plaza within the site other functions were injected to revitalize: restaurants, cafes, and cultural activities with slower pace speed.

The urban strategy creates a morphology of a continuous but porous boundary that redefines the site as a city block and at the same time activates the surrounding. The new buildings are conceived as an ascending platform spiraling above the old buildings and touching the ground in specific moments, creating new functions and vertical circulation that allows the user to reach the public areas above the plaza like in a cinema experience always having the impression to be inside people friendly spaces, where the green have a predominant importance. The aerial loop and the ground floor will function as social condensors resulting in a great experience of city life to both residents and visitors.

**SOCIO-ECONOMICAL SUSTAINABILITY**

Key to the success of the model is fostering and enhancing the entrepreneurial spirit of local residents. We believe that either government ownership or external investor ownership of business activities is not sufficient to generate interest by the community. While this may create jobs, we don’t think will create a settle of engagement and responsibility toward the success of the own urban and social project.

As a result, the model we propose is for investment funds managed by private investors to identify businesses within the community. The private investors will be incentivized to establish these businesses by lower income tax rates on investment income granted only if an equity stake is offered also to local residents. Our model targets an equity ratio between private investors and local residents of 51%/49%, giving the private investors a majority ownership in order to leverage their experienced business knowledge.

The local residents will have access to the equity in the business venture by providing employment as well as capital borrowed by the government at subsidized cost. This business model has a double bottom line, as typical for social entrepreneurship models, which are:

- Generate a profit to the private investors, the government and local residents involved in the business venture;
- Motivate the community to the financial and social success of the urban project, while also transferring business know-how from private investors to local residents.

**THE NEW GREEN MARKET STRATEGY INTEGRATED IN FLOATING BUILDINGS**

**PROGRAM DISTRIBUTION**

- Residential
- Accommodation
- Administrative
- Cultural
- Restaurant/Cafe
- Commercial
- Connections
- Fast

**UNDERGROUND PARKING, UPPER LEVEL**

( Typical floor plan)

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**UNFOLDED ELEVATION (OUT OF SCALE)**
The buildings are defined in a scale of dynamicity ranging from still to fast by both how they affect the surrounding and how they get influenced by the activity of the urbanity.

The void is defined in a scale of dynamicity ranging from still to fast by the adjacency to the urbanity and its function derived from the activity of the urbanity. Urban void:

- public void
- void
- abandoned warehouses
- office factory
- administration building
- residential building

The project has been designed in a way that can generate interest from public and private investors. The model is based on private investments sponsored by the government through either solvency guarantee or tax breaks.

TRAFFIC AND ACCESS TO THE SITE FROM 1920s TO THE PROPOSAL:

Arko’s industrial site 1920s

The industrial plant consisted in three adjacent sites, two of which were in fact connected. Subiceva street at the time was not open to traffic. The site was accessible to railway carts.

Present

The site is accessible from Subiceva, Derencinova and Vlaska street, all three are two-way streets. There is one open parking lot on the Badel site and two underground in the adjacencies.

Proposal

The site will be accessible on all four sides, with pedestrian access on Vlaska street and car access on Derencinova street, converging into the underground parking lot.

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CONCEPT DIAGRAMS: SPEED + SPACE = FUNCTION

STRATEGY ON INTERACTION OF POLITICS, PLANNING AND DESIGN

FINANCES РЕHABILITATION OF EXISTING BUILDINGS

NEW ACTIVITY AND CULTURAL SPACES

COORDINATES DESIGN AND FINANCIAL IMPLEMENTATION PROCESS

INVESTORS
ZAGREB MUNICIPALITY
MICRO-COMMUNITY PROJECT
ARCHITECT/PLANNER
PLANS AND DESIGNS
NEW FACILITIES
FINANCES
REHABILITATION OF EXISTING BUILDINGS
PROVIDE MICROFINANCING SERVICES
REPAY INTEREST COSTS AND INVEST SAVINGS
OWNERSHIP
NEW ACTIVITY AND CULTURAL SPACES
STRATEGIC CHOICES
MEDIATOR
COORDINATES DESIGN AND FINANCIAL IMPLEMENTATION PROCESS

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Building form plays a very important part in defining the internal environment and the need or otherwise for energy intensive intervention in maintaining comfortable internal conditions. We must use appropriate building design and "passive engineering" before we consider any dynamic (active) systems that may be necessary to further control the internal environment.

The buildings will be designed with high levels of thermal insulation to minimise heat loss. Windows and curtain walling will be triple glazed with low-emissivity coatings as a minimum. With modern well insulated buildings the highest component of heat loss is usually caused by unwanted infiltration through the building fabric, and in particular through joints between different building elements. This is usually easy to remedy, but requires good attention to detailing and monitoring of the construction process on site. We will use efficient mechanical ventilation complete with heat/cool recovery wherever possible.

The former yeast factory has been designed to house the prestigious Zagreb Film Festival giving it a permanent center, which during the year can host events related to the festival. The building has been kept intact on the outside while the inside space has been revisited with few differences from the original layout, respecting the characteristics of the former open space.

**FLOORPLAN at 2.00m**

1. Street from boutique for small local businesses
2. House of the Zagreb Film Festival - Auditorium A
3. Café of the House of the Film Festival - kitchen and mediatheque
4. Residential building - hall
5. Residential building - private exercise space
6. Boutique Hotel - lounge
7. National Museum of Industrial design - Sculpture garden
8. National Museum of Industrial design - exhibition space
9. Public Agora
Vegetation has a very relevant influence on the microclimate of a site, this due to the following aspects:
1. Shading on the paths and buildings
2. Resistance to the wind
3. Summer cooling

SUSTAINABILITY
Particular focus has been put on sustainability. The objective of our environmental strategy is to create a healthy, enjoyable, low energy and sustainable environment where staff and visitors can develop and contribute to their maximum potential. The design process is primarily based on a strong commitment to sustainability using passive means, that is, by firstly considering the building form and envelope and how it can influence and modify the environment within it. There is also a strong commitment to minimise carbon emissions, by the selection of the most carbon efficient energy source and considering the use of renewable technologies.
GREEN AREAS

The green spaces have been designed to create active public plazas. The trees ensure shadowed areas to cool down the plaza and the water ponds create a level of comfort in the summer generating a micro-climate at the ground level. In the hot season the shadow of the vegetation produces a favorable effect. On the floor it creates places to relax, it protects the plantations from an excessive transpiration. On the building walls it prevents overheating of opaque surfaces and the sun overexposure of passive systems.

Our strategy combines organic and building material, such as COR TEN steel and concrete, into gradient of changing proportions that accommodate a variety of natural and programmatic conditions. Part agriculture/ part architecture the system digitizes the surface of the building roofs into discrete units of paving and planting that could be organized in any combination from 100% hard paving to 100% soft richly vegetated biotopes.

Walk-able surfaces will be treated with titanium dioxide, which coming in contact with solar rays it releases oxygen. Furthermore it acts as a catalyst to decompose a number of organic composites through oxidations, enabling the surface to self-eliminate any organic deposit.

All public functions on the ground level, including the national museum of industrial design, restaurants, hotel, kindergarten, and the House of Zagreb film festival have connections with the green spaces surrounding and penetrating the project. Public roofs gardens offer tranquil green spaces, and at the top of the residential sections private roof gardens are connected to the penthouses.
HEATING, COOLING AND VENTILATION STRATEGY

Air-conditioning in summer is energy intensive and we must find ways of achieving our objectives whilst ensuring low energy in use and minimal ecological impact. Geo-thermal wells provide the new buildings with cooling in summer and heating in winter, high performance glass and COR TEN perforated screens ensure the buildings with the best insulation from the outside temperature rather than mechanical refrigeration plant. A displacement ventilation strategy will be employed with the primary air delivered at low level and extract at high level. The primary air will be pre-treated in order to maintain room humidity below the dew-point of the cooled soffit. In the winter the intention will be to shut the building envelope as tightly as possible and use mechanical ventilation to provide the minimum fresh air requirements for the occupants and control indoor pollutants. In this way we minimise the amount of (cold) outdoor air that we need to heat and can also recover heat from the extracted waste air. We will ensure that the transition from outside through the entrance, circulation and into the internal spaces is one of gradually changing environmental conditions.

We will achieve passive environmental control and reduced energy use by: maximising the advantages of the site (orientation, wind, etc.); The use of exposed thermal mass to control summertime temperature; where additional cooling is required, providing adaptive shading to prevent summertime overheating whilst allowing...
This rigid curtain-wall sandwich comprises an aluminum honeycomb core and two glass reinforced translucent sheets as the exterior faces. The orientation of the glass within the outer face sheets results in a pixelation of anything projected through the panel. The movement of a person behind the panel becomes a pixelated event. This transforms the concept of the urban integration as the wall becomes a moment of interaction among the inside and outside giving the impression of a live body not only during the night, but also during the day, transmitting outside every change happening inside, whether it's a light or a group of people moving.