

## **The Parliament of Cinkarna**

Over centuries, the manipulation and abuse of the environment has led to a major planetary crisis. The local site of Cinkarna exemplifies the destructive processes of the limited view of human actions, resulting in a toxic landscape not only for its non-human agents but for the people of Celje, too.

Hence, it is time to rethink our dealing with land, flora and fauna. We need to achieve more than just a balance between human and non-human actors, we need to become companions and make ourselves kin with all living species and non-living agents. To reach this goal, we have to adjust our planning strategies from a purely human-centred perspective towards a more holistic view. We have to take into account all the interests involved debate about how to design our future, with all parties affected. We want to re-enchant the site of Cinkarna as a new model of collective and symbiotic urbanism. We will form the Parliament of Cinkarna!

### **DECLARATION OF CINKARNA**

The “Parliament of Cinkarna” is formed out of the necessity to decontaminate the soil, but also to rethink our approach towards the land, including its flora and fauna as well as its significance for Celje and its people. It consists of the local agents which are affected by the pollution and the measurements of cleaning as well as the future development. The soil has a particular significance as it is the main actor who calls in the parliament and who has the strongest relations to all the other agents.

As a reverence point to approach the restoration and densification of the project area, the declaration of the “Parliament of Cinkarna” aims to establish flourishing symbioses of reflecting the needs and desires of the different local agents. To approach the restoration and densification of the project area four major challenges are tackled:

- mitigate the existing pollution
- allow densification with careful compaction of natural surfaces
- establishing long term habitats and communities / symbioses of species
- mediate human and non-human presences

Over the last decades, the impact of the humans has led to such a high contamination, making the site almost untouchable. This process needs to be turned around by putting the soil and its natural habitat in the centre of the project. Hence, through restoring the polluted areas, the negative impact of humans is gradually reduced while the human activity as well as biodiversity is being increased.

The project area is structured in three zones with different approaches of dealing with the land.

1. densification for the human needs of Celje
2. zone of negotiation as a long term buffer for construction
3. protection area “Cinkarna Biotop”

### **CONTAMINATION MAPPING**

Based on the given information, an estimated mapping of the contamination was undertaken by differentiating between the level of contamination and the contamination depth to develop a toolkit of decontamination strategies. These strategies are suitable for different situations and can easily be adapted and relocated with further technical knowledge.

Living up to the parliament’s claim, the focus is put on plant based decontamination methods such as phytoremediation, humus mixing as well as natural stabilization designs.

### **DECONATMINATION PROCESS**

As the contamination reaches from the topsoil up to 10 meters below ground, the contact of contaminated substances with the groundwater as well as direct contact on the surface have first priority.

A monitoring and pumping system will ensure that both, rising groundwater or percolating rainwater will be collected and treated.

Shortly after, the first community humus can be applied to the soil to lower the contamination level to a grade which is suitable for hyperaccumulator plants.

Within several years, the hyper accumulator plants can decontaminate of the topsoil towards a level that allows open ground works to be carried out.

In a long term process trees with a high capacity of phytoremediation will take up toxic elements in deeper soil levels.

## **TERRITORIAL STRATEGIES**

### **1. WILDLIFE CORRIDORS**

A system of wildlife corridors along the already existing stepping stones and river banks, new green connections are implemented referring to existing green and open space potentials (underused areas, brownfield sites, distance greens, tree rows, ...). The different qualities, such as dry meadows, treescapes and urban greens increase the biodiversity and pull the surrounding landscapes into the city. Hence the wildlife corridors bear the additional potential to link Celje and its (human) population with nature and create a diverse open space design within the city.

### **2. ACTIVE MOBILITY NETWORK**

Three different programmatic rounds span a dense network of active mobility in Celje.

1) The Celje City Hiking Trail allows to experience the landscape of the region while it acts as a supportive crosslink for the residential areas in the north of the city. 2) The central loop connects the new mobility hub at the main station along the education and health clusters with the promenade along the Savinja river as leisure and recreational esplanade. 3) Within the project area, the Cinkarna Trail offers an experience to the industrial past and the reconnection to nature.

The regional linkages follow the waterway networks and offers the possibility to re-naturalize the river banks and creeks to lower flood risk in the urban area and enhance bike commuting into Celje. Within the city, existing streets will be qualified as urban boulevards following the sponge city concept, with trees and greenery to lower urban heat island effects and to serve as retention spaces. The city wide network is supplemented with a fine-grained path system offering resting possibilities for elderly people and natural shading in the hot summer months.

### **3. REGIONAL HUB**

The relocation of the bus station to create a multimodal mobility hub as a new gateway for and to the region. The cleared site becomes the new link to the expanded Celje Campus of Health and Mobility, focusing on education and research. With this new drive, the existing shopping center can be retrofitted for start-ups and co-working right next to the new mobility hub. The southern part of the site becomes the new entrance gate to Celje instead of an underused car park.

The adjacent site at Mariborska street with its supermarket and gas station can be used as valve for the development pressure on the Cinkarna site. Allowing a high density mixed use quarter can cross finance the long term processes on the Cinkarna site.

Extending municipal and headquarter functions next to the Celje archive and behind the train station will link the historic center to Aljažev Hrib. In perspective the commercial cluster on the left side of Voglajna river can become a new mixed use development site as bridgehead of the center.

## **UNCERTAIN LANDSCAPES: INCREMENTAL STEPS TOWARDS A NEW CINKARNA**

Instead of a classical phasing project, the uncertainties of the Cinkarna site require a more cautious step by step process. The strategy of time horizons allows different processes and operations to overlap or even to restart if necessary. The time horizons lay out a framework and guiding principles within a

structurally open process design. Working within the Cinkarna time horizons is based on time specific co-operations and long term symbioses.

**Time horizon 1:** Preparation of a legal framework with the local community and experts and conduct research surveys.

**Time horizon 2:** Implementing test fields and interdisciplinary cooperation along natural decontamination operations.

**Time horizon 3:** Consolidation of networks and densification / intensification of environmental and human habitats.

**Time horizon 4:** Including adjacent properties in the consideration of further development and apply the declaration of the Cinkarna Parliament throughout the city.

### **MOVING GLASSHOUSES: TRANSFER OF KNOWLEDGE FROM TESTFIELDS**

With the implementation of the 'Cinkarna Parliament', bright glass houses will establish a presence in the inhospitable landscape of the site. The glass houses are testing field to learn about different places within the site, through an examination of the soil and its surrounding symbioses. Under a protective roof, test runs of humus mixing, phytoremediation and phytomining will be implemented.

Moving around the site, a deeper understanding of the Cinkarna habitat is put together. The overlapping of places, movement and newly created connections leads to an accumulation of knowledge about acting within the land and its habitats. Institutional starting points for this process of "moving fields" are a horticulture and research facility as well as a community center in the working neighborhood. By and by, new actors join the process and for time specific co-operations and the forming of symbioses and collectives.

### **CONNECTING WITH CINKARNA, CELJE AND BEYOND**

With the consolidation of the newly established communities on the site, a dense route network is linked to superordinate infrastructure, focusing on active mobility and public transport.

### **CINKARNA TRAIL**

To establish a deeper connection with the site, a trail of knowledge and endeavor is connecting different points of interest. Along the way, construction botany folies highlight specific elements of the site. They are used as a message, piece of information, as memory and as direction or desire. These folies become articulations between the site and the one who walks through it, the ones who visits or inhabits it. Hence, the trail becomes an experience in the landscapes of Cinkarna: going through and moving forward, sensing how and when to take the next step. It brings the visitor closer to nature, the heritage of Cinkarna and give way for a possible fertile future.

### **CINKARNEUM**

Heart of the Cinkarna Trail will be the CINKARNEUM where all the local gained knowledge will be pooled and made accessible in a new research, information and cultural center. As a new type of institution, it brings together research laboratories, exhibition and event spaces, a museum and education facilities as well as artists' studios. Through science, art and education activities, the CINKARNEUM offers the possibility to reconnect with the site beyond the city.

### **A FERTILE HABITAT FOR GREEN TECHNOLOGIES**

The densification zone is designated for intensive human use and mediates between the heavy industries and the city center. There is no need to allow heavy production within the site, but rather intensify existing adjacent industrial zones. Based on phytoremediation processes, collaborations between horticulture education, bio-chemical technologies and health science enhance the colonization of companies around new green technologies.

The clustering of programs and typologies form a gradient from bigger scale businesses to small scale structures and programs, interpreting existing buildings as potential extension space in the future. The combination of updating existing buildings for different housing types as well as the implementation

of small scale and collaborative production facilities, build a fertile ground for the creative industry and start-ups.

As development in the negotiation zone is not foreseen in the near future, a set of technical and formal requirements lay out guidelines for the time horizon 4. Following the highest standards of ecological construction, the urban typologies form different symbioses with nature in order not to reduce local habitats. Closer structures should establish a dense habitat on the roof (intensive green roof) and level up the ground floor in order not to prevent circulation of air, flora and fauna. Row typologies should intensify the non-human habitat in between the buildings, creating three dimensional green corridors. A third strategies can be applied by big boxes, to include green high technology in the construction and pocket biotopes as compensation.

### **A SCENARIO FOR A SYMBIOTHIC NEIGHBORHOOD**

To work within a landscape of uncertainties, it is important to allow space for errors and self-work, while being on eyelevel with international experts and local makers. Therefore, we are pushing away from the classic master plan and support a path of cooperation and small steps. That means to think of a programmatic, spatial and stakeholder scenarios which gives hints for possible future activities and their specific requirements. Synergies within and between the clusters – but also beyond – can evolve through openness and creativity.

To continue the dynamic of Celje as an industrial city needs to update industries with new creative and high technologies. This does not only need specific requirements for the production sites, but moreover a stimulating habitat for its employers and innovation makers. That means beside the classical single family or apartment housing, the site can be used for prototyping for a variety of housing typologies ranging from loft to cluster apartments and integrating working possibilities. Furthermore there needs to be spaces for small budgets to experiment and to just start building up ones one ideas.

Being able to react to the flexibility and highly dynamic scene, architecture as well as urban typologies need to be adaptable and provide spaces for future extensions.

All this combined with structures for bigger players and research facility can create a hybrid biotope for Cele's industrial future.