

The Symbiotic Habitus

Student: *Iva Peručić*

Mentors: *Ida Križaj Leko, Jana Čulek*

This project explores how we can influence cultural behavior (habitus) by intentionally altering the physical environment (habitat). The goal is to create a more resilient, inclusive relationship between humans and nature. It envisions cities of the near future as refuges for both human and non-human inhabitants. The concept proposes a form of urban infrastructure that adapts and evolves over time, responding to change.

The project uses surplus materials, such as construction waste and soil, to create "nodes" — points of connection where diverse elements interact symbiotically. These nodes serve as catalysts for life and diversity, fostering spaces of human care and interest. Drawing inspiration from traditional, indigenous, and permaculture knowledge, the nodes are designed to improve local conditions for life.

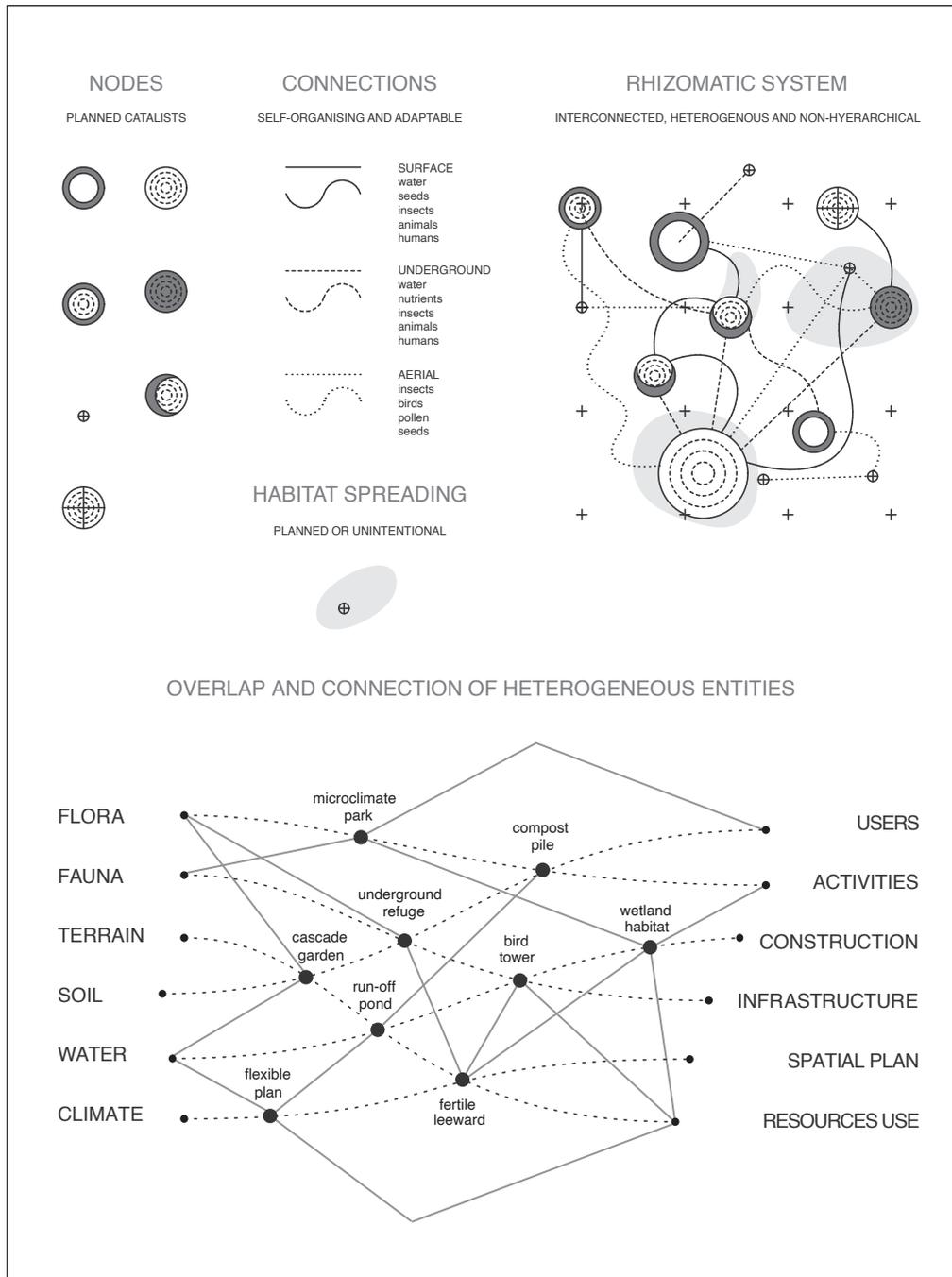
Each node is carefully planned in terms of position and shape, but its function and users emerge organically, adapting to context and need. The nodes are guided by an internal logic that allows them to autonomously shape and utilize space. This self-organizing process creates a resilient, interconnected system that thrives without constant human intervention, encouraging a harmonious balance between people, nature, and the built environment.

Iva Peručić is a graduated architect and urban planner from Zagreb. After several years of working in architectural offices in Amsterdam and Zagreb, she founded her own GROW studio in 2017. By focusing on smaller-scale projects, temporary spatial installations, and projects outside urban areas, her work questions the coexistence between architecture and nature. Some of her realizations include the Ekodrom estate, a renovation of a traditional rural estate for living and working in nature, and Puli Malina – a hybrid of a mountain shelter and a sculpture in the landscape. As part of the artistic duo Paprat Kolektiv, she has realized installations in public spaces such as Zeleni Ratkaj in Zagreb and Solution 0 in Guimaraes, Portugal, as well as in Tartu, Estonia. Her interest in public space deepened further in 2024 when she completed a specialized study in Urban Studies in Rijeka, with a final thesis titled Symbiotic Habitus.

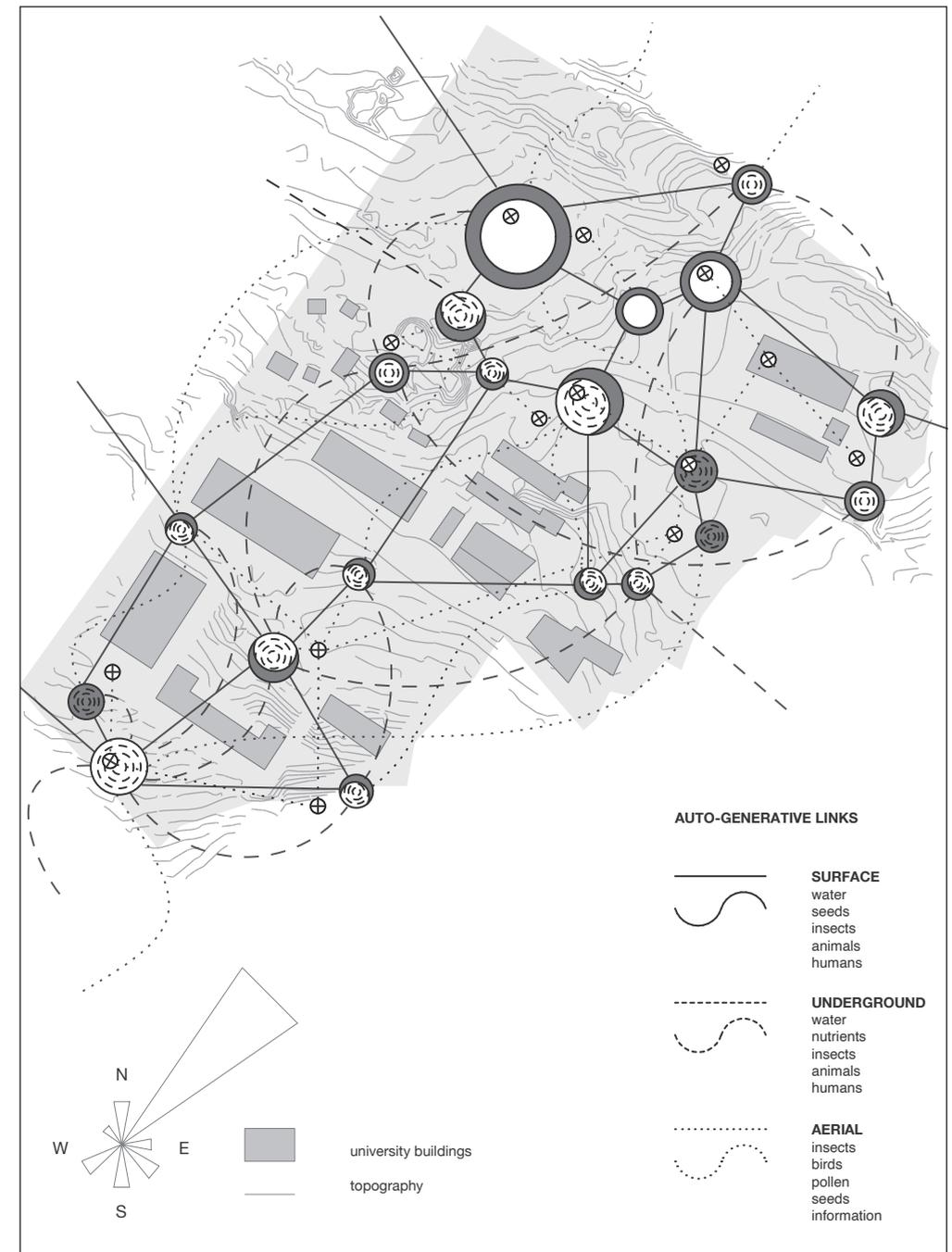
NODE	SYMBOL	CLIMATE SCENARIO	SCALE
COLLECTING		DESERT-LIKE: - harvesting moisture for plant growth	S
		MONSOON-LIKE: - run-off water management	M
			L
EXTRICATING		DESERT-LIKE: - sand mound for rooting plants	M
		MONSOON-LIKE: - dry area above flooding level	L
GATHERING		DESERT-LIKE: - wind shelter, moisture harvesting	S
		MONSOON-LIKE: - wind shelter, sun harvesting, run-off water and erosion management	M
			L
PROTECTING		DESERT-LIKE: - wind and sun shelter, moisture harvesting	S
		MONSOON-LIKE: - wind shelter, water harvesting	M
STORING		DESERT-LIKE: - water storage, cooler, shelter	S
		MONSOON-LIKE: - dry storage, shelter	M
			L
OBSERVING		BOTH SCENARIOS: - sensors for more-than-human participation - weather station - above-ground shelter (for flying organisms)	ONE SIZE

FUNCTION	USERS	REFERENCES
RAIN GARDEN COMPOST/FIRE PIT	microorganisms fungi	
SWAMP POND	water plants and algae fish and aquatics insects	
LAKE WETLAND	birds, reptiles, mammals humans	
DIVERSITY MOUND	microorganisms fungi	
FLOOD ISLAND BIRD NESTER	meadow plants insects birds, reptiles, mammals humans	
Facing uphill: ANTI-EROSION TERRACE SPONGE SYSTEM FERTILITY PIT	microorganisms fungi edible and sensitive plants insects	
Facing south or downhill: SUN GARDEN WIND SHELTER	birds, reptiles, mammals humans	
(all scales)		
WALLED GARDEN SHELTER	microorganisms algae fungi	
PRESERVATION CIRCLE WATER HARVESTER	edible and sensitive plants insects birds, reptiles, mammals humans	
SEED BANK WATER / FIRE KEEPER FEEDER	microorganisms algae	
LAIR, BIRD/BAT TOWER UNDERGROUND SILO	aquatics fungi birds mammals humans	
UNDERGROUND SHELTER		
SENSOR MOUNT LOOKOUT FEEDER-NESTER PLANT CLIMBER BEEHIVE HOLDER	climbing plants bees birds humans AI	

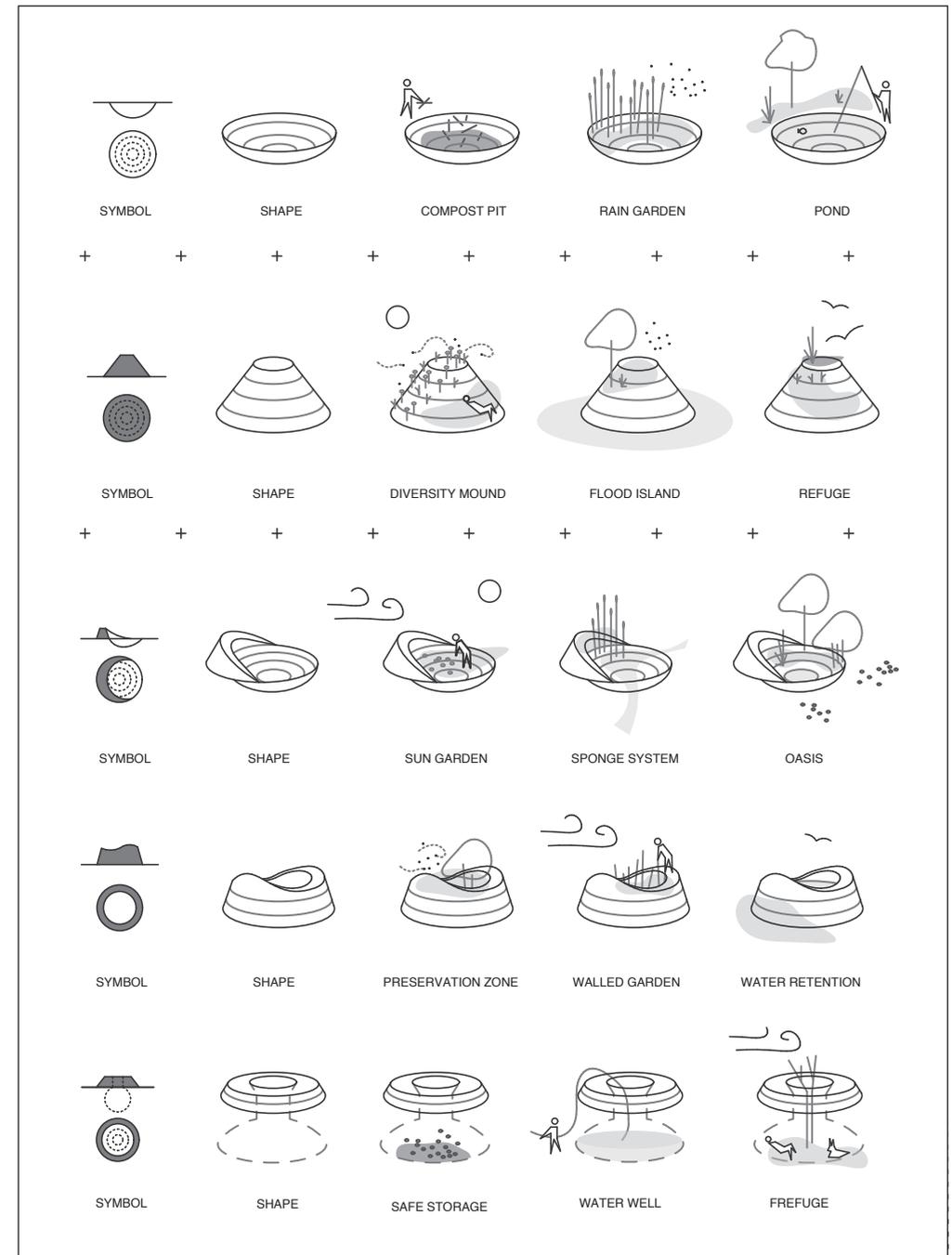
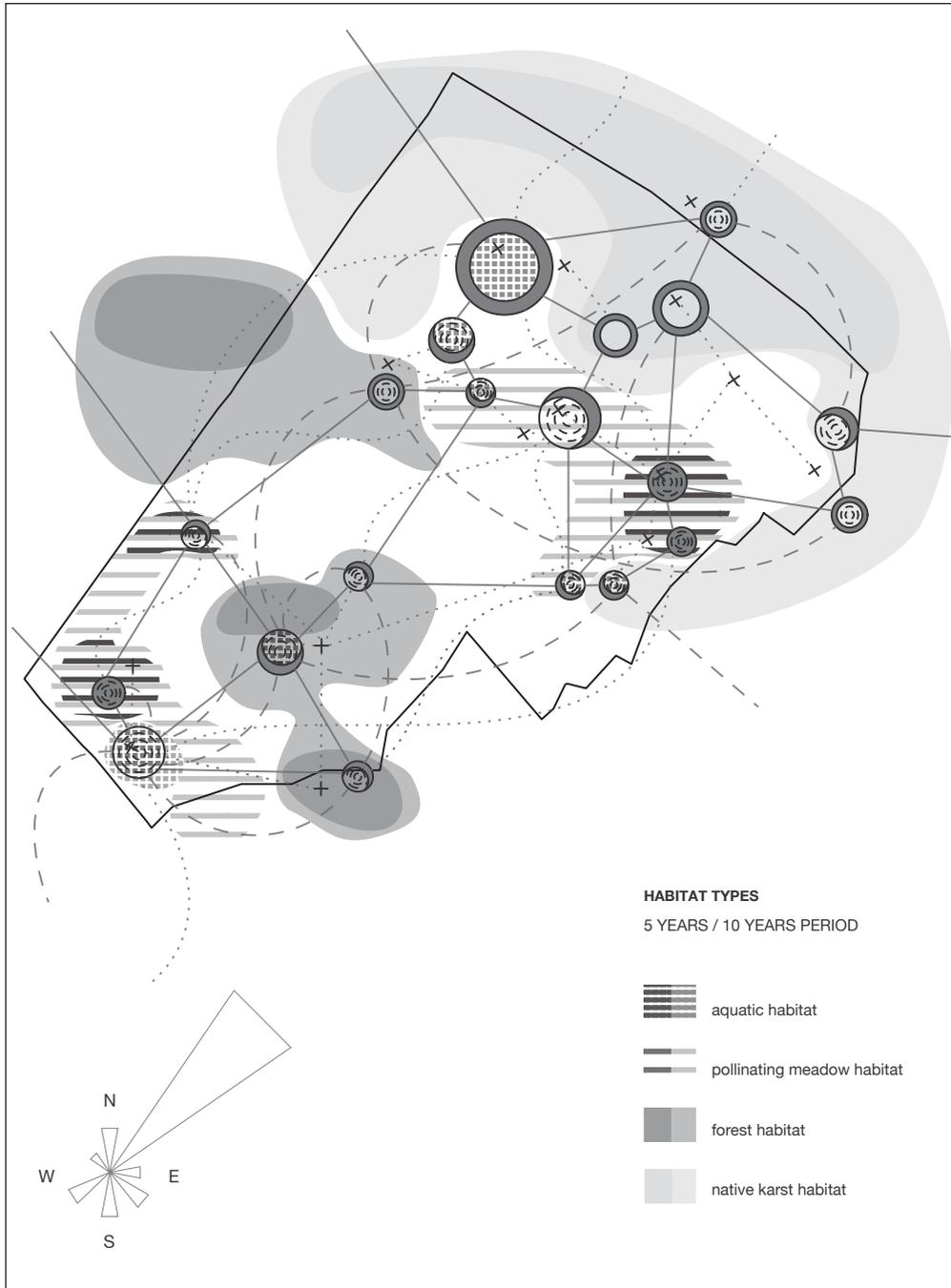
NODE TYPOLOGIES _ A table of designed infrastructural typologies, proposed for the development of the Symbiotic Habitus. Each tipology is flexible according to its possible scales, requirements of the climate scenario, functions, and users.



RHIZOMATIC SYSTEM _ A pragmatic proposition for the assimilation of nature within the preexisting urban framework is the superposition of a new typology - a rhizomatic system of infrastructural wilderness. A diagram of the project's concept presents the main elements forming the proposed rhizomatic structure and their interrelation.



RESILIENCE _ A map showing the spatial interconnectedness and heterogeneity of the rhizome. After the planned intervention of building the nodes, a variety of habitats are left to autonomously develop and create links of interrelations. The higher the number of links, the more adaptable and resilient the system.



HABITAT SPREADING _ If the space surrounding a node is unused or neglected, a habitat has an opportunity to spread along its links of interrelations. This autonomous spreading of symbiomics can also be a planned method if future scenarios evoke the need.

NODE FLEXIBILITY _The function of each node is not fixed, but subject to change freely according to various future needs. High adaptive capacity of the nodes, makes them resilient to a wide spectrum of future scenarios.