Living with trees

The In-between as a void for human and nature.

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ABSTRACT: Living with trees explores new relationships between human and natural interstitial spaces enabled by digital simulations. For this, the project implements artificial intelligence to design synthetic synergies in the in-between spaces of a residential building.

Living with trees explores new relationships between human and natural voids enabled by spatial computation. As research by design the project simulates the interaction of building parts looking into the compositional qualities of emergent in-between situations. The project implements artificial intelligence to learn and sort, evaluate and show synthetic synergies between human and natural voids. The cloud-driven, spatial simulations between elements aim toward a state of endless variation. The exposed fragment demonstrates the interlocking between space for trees and navigation as voids. Both are prime examples for non-additive although plural voids. The life of a tree depends on the plural condition of its habitat. More soil, more trees, more diverse species are

interconnected more a tree will flourish. Also a corridor, a street is not only a space to cross but to be seen, to meet, to play. Both, natural and human voids are plural, assemblages of multiple entities while not being additive.

Taken inspiration from Friedrich Kiesler's concept of endless space as precondition for "Stadt-Raum", a part is understood as a living, moving, interacting, resonating entity, composed via dynamic principles. Here architecture is created through interaction of smaller elements which together creates multiple wholes, multiple parts, multiple inbetweeners. The resonance between the parts is a design strategy, which results the outcome based on the dynamic compositional principles.

Living with trees is a housing proposal resonating through the endless gaps of natural and human voids. The interactive dynamics loops endlessly. Mathematical code entangled within voids flip upside down into an open composition. The gaps between the parts, the spatial voids entangle into open architectural situations with endless opportunities through the small-scale granularities of shared spaces. By this way more natural human voids evolve in multiple meaning – for natural gathering from endless loops for humans and soil compositions, more light through various shards of daylight, more cross ventilation through looping gaps, a more healthier environment. Here, computation, environmental design and architectural composition meets together.