

Interweave



Country / City Finland, Helsinki
University / School Aalto University - School of Arts, Design and Architecture
Academic year 2018/2019
Title of the project Interweave
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TECHNICAL DOSSIER

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| Title of the project | Interweave |
| Authors | Joonas Saarinen, Tina Cerpnjak |
| Title of the course | Computational Territories, Design of Structures |
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| Teaching Staff | Prof. Pia Fricker, Prof. Toni Kotnik, Luka Piškorec, Kane Borg |
| Department/Section/Program of belonging | Department of Architecture, Master's Programme in Landscape Architecture |
| University/School | Aalto University - School of Arts, Design and Architecture |



Written statement, short description of the project in English, no more than 250 words

The Hawker Centre is a social nexus point in Singaporean culture, bringing together family, friends and people of different cultural backgrounds to enjoy food and good company in an informal setting. The project aims to expand this notion to incorporate social programme, interweaving urban green and a plethora of leisure activities within a single active landscape. Thus establishing a new social heart of the otherwise anonymous new Punggol urban development.

By translating the movement of people into a multilevel topography, the project in turn creates a water channel network that seamlessly connects the site with the new Waterway park development. The channel system works not only as a visual guide, but also serves as a flood-water catchment body, filtering the water and creating a micro-climate within. The number of water bodies in the landscape create not only a pleasing environment, but also provide water for the trees and surrounding vegetation.

The topography folds out to enable covered programme with services that blend in and out of the green park-like landscape, blurring the boundary between inside and outside. They articulate the ground in a manner that accommodate different leisure activities, based on the location on site.

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CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020
SCHOOL PRIZE

The Punggol Development



Introduction

The site is located in the rapidly expanding new urban development in Punggol, Singapore. With a grand project providing over 150 000 new homes for the growing population, The Punggol development offers a pragmatic solution to the housing deficit.

A carpet of HDB government housing will soon be accompanied by a new University campus and Technological Business Hub in the north of the site.

With the upcoming boom of new residents, the site is in direct need of a new identity and quality public space to cater to both the needs of the residents, as well as the daily migrants working and studying in the planned facilities. The project therefore aims to connect the main infrastructural knot of the MRT Waterway park.

A new reading of the potential and importance of urban green in connection with the traditional indoor-oriented malls and cultural centers is created.



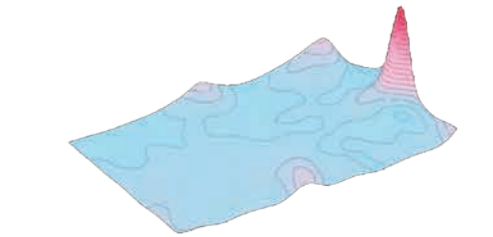
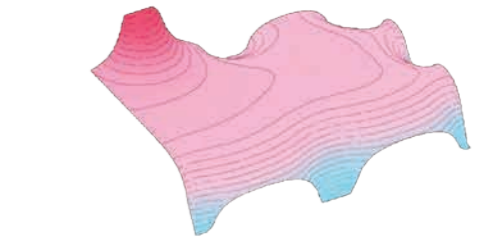
Legend

- 1 sports park
- 2 creative cluster
- 3 learning corridor
- 4 housing development

Creating topography

The topography was generated by first creating a field condition with a weighted node system and using the field values to assert differences in height throughout the plot. This created a multitude of shaded spaces that blend seamlessly with the surrounding park.

The different levels encourage exploration and offer privacy and intimacy in a public space, giving it a more human scale.

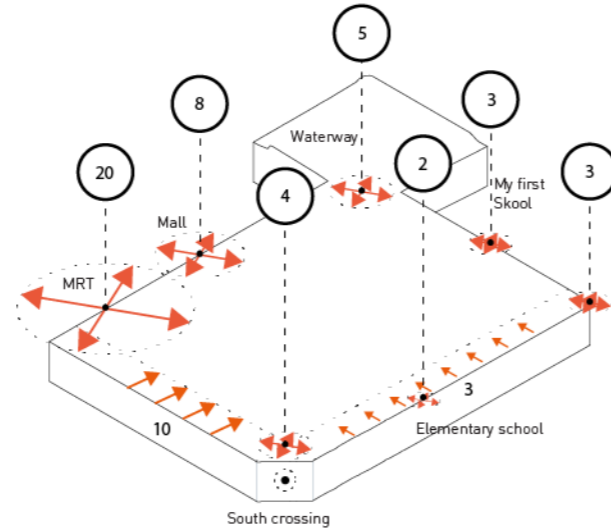


Design Process



01 Informing the Landscape

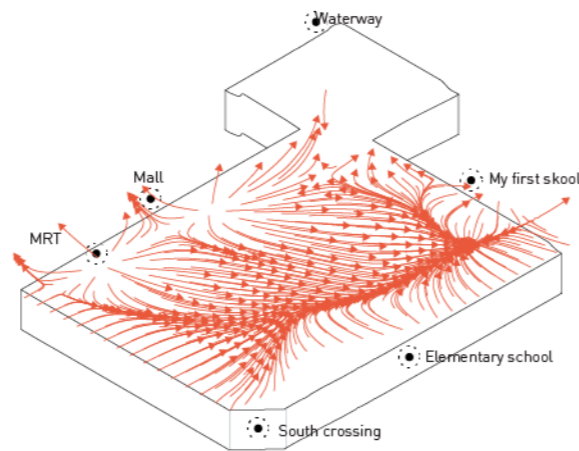
By creating a field condition informed by the flow of people through the site, the topography is shaped to create a variety of multilevel spaces and ecological values.



1 Nodes as force emitters

02 Catching and Guiding Water

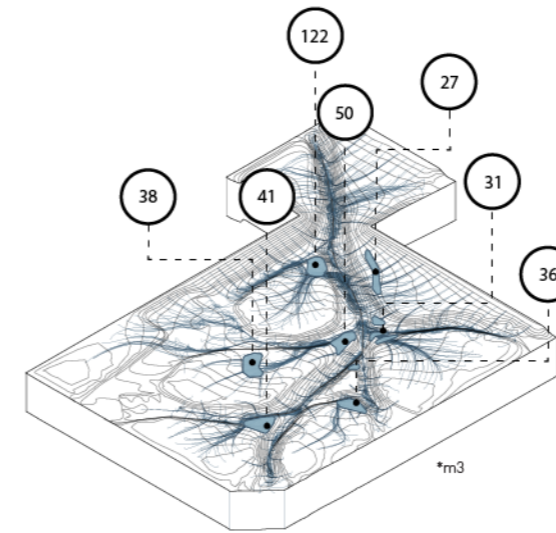
By analysing the water flow on site, water catchment are defined and subsequently activities and ambients in their vicinity.



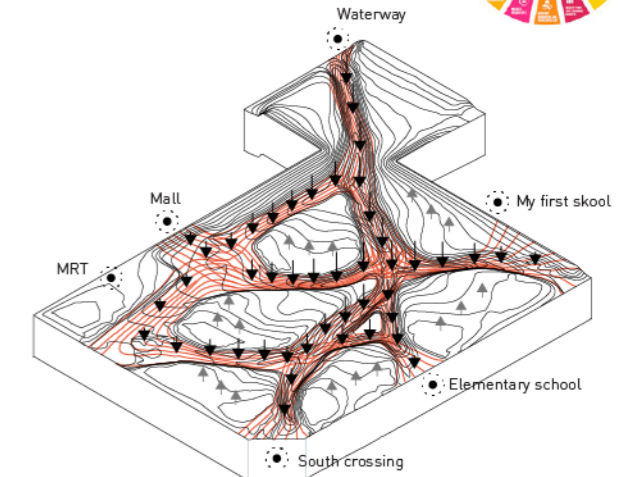
2 Flow of test particles

03 Folding Out the Topography

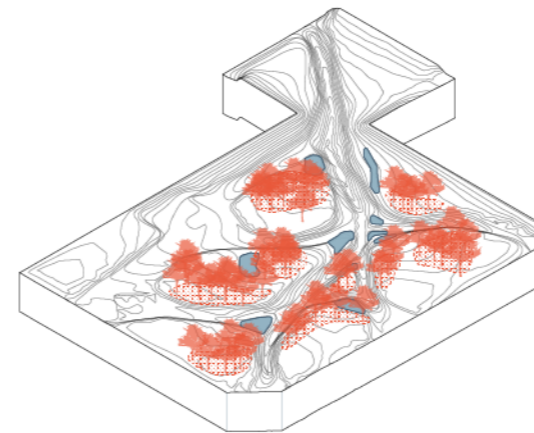
With an operation of cutting and folding the topography, covered areas for certain programmatic functions are provided and by doing so articulating the spaces above this interventions.



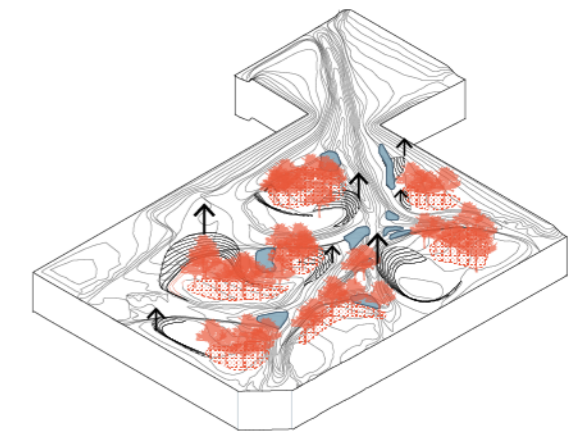
3 Establishing catchment areas



5 Terraforming based on field values



4 Defining planting zones



6 Folding out topography to accommodate programme

Example of a typical spatial formation

Multiple arrangements and spatial articulations across the site emerge offering shade, seating, stages and access to water. The visualisation shows a typical formation that is a result of applied multiple design steps, informed by an exchange of environmental and functional data-sets.





During heavy rainfall the 'river' channel floods, taking on a new identity and engaging with the general public with a myriad of water related activities.

The folding topography articulates itself in different scenarios on site, catering to the spatial demands of the activities surrounding it, be it a skate park or outdoor climbing wall.

The Hawker gradually expands into the surrounding landscape in the evening hours of the day, allowing visitors to enjoy a meal immersed in a more natural setting.