



FADS, FACADE & FACE OF BUILDING

A proposal for an urban university
campus expansion

Ann-Kathrin Kuepper
MArch. (Prof.) Victoria University of Wellington
2015
anka.kuepper@gmail.com

Proposed Plan Change 81 -
Rezoning 320 The Terrace
and
De-listing The Gordon Wilson Flats



INTRODUCTION

Victoria University's Vice Chancellor Grant Guilford's vision is to expand the University by doubling student numbers over the next decade. Additionally the University recently purchased a campus adjacent piece of land which warrants a future expansion of Kelburn Campus. Hence the stretch of land leading up to Kelburn Campus provides a great opportunity to hypothetically test this architectural master's research. Given the location and nature of the site's topography a facade development is required that challenges the ridgeline facade typology as is traditionally employed in a University setting. Hence site becomes the primary design driver in the initial design stages to explore the development of a hillside facade. This requires a constitutive stance towards the slope which will strongly impact the communicability of image not only through construction but also the process of appearance (Leatherbarrow, 2002).

Gordon Gee strongly emphasized that it is in the area of our physical campuses that a particular vulnerability exists as only a few short-sighted decisions need to be made (incorporating the latest building fad) before the physical quality of a campus reflects the scattered and distracted spirit and administration of the institution (Kenney et al, 2005). This demands the need to return to core values; Victoria University of Wellington's mission is to undertake excellent research, teaching and public engagement in the service of local, national, regional and global communities. Architecture facilitates the return to the University's core mission and sustains its values under the philosophical proposition that space and mission are synonymous (Kenney et al., 2005). Hence the University itself is treated as facade and contextualized against history. The research develops a continuous facade system transcending various

scales to achieve greater circulation, orientation and increased connectivity. This is between Wellington's City Centre below and Kelburn Campus, across Campus and within the individual faculty buildings it will comprise of. It becomes an urban threshold that shifts the notion of facade as well as positions the university and its image towards the city from the confrontational horizontal to the engaging vertical. For Victoria University, in this research context, a design outcome of a staggered nature is envisioned. The aim is to not only establish a new image for the University but also provide space of opportunity to enable students to take control of their own education. Creating an intellectual home that provides for the multi-media classroom of the 21st century and facilitates a healthy lifestyle.



WHAT

University Campus expansion through an investigation of the contemporary understanding of the term 'facade'.

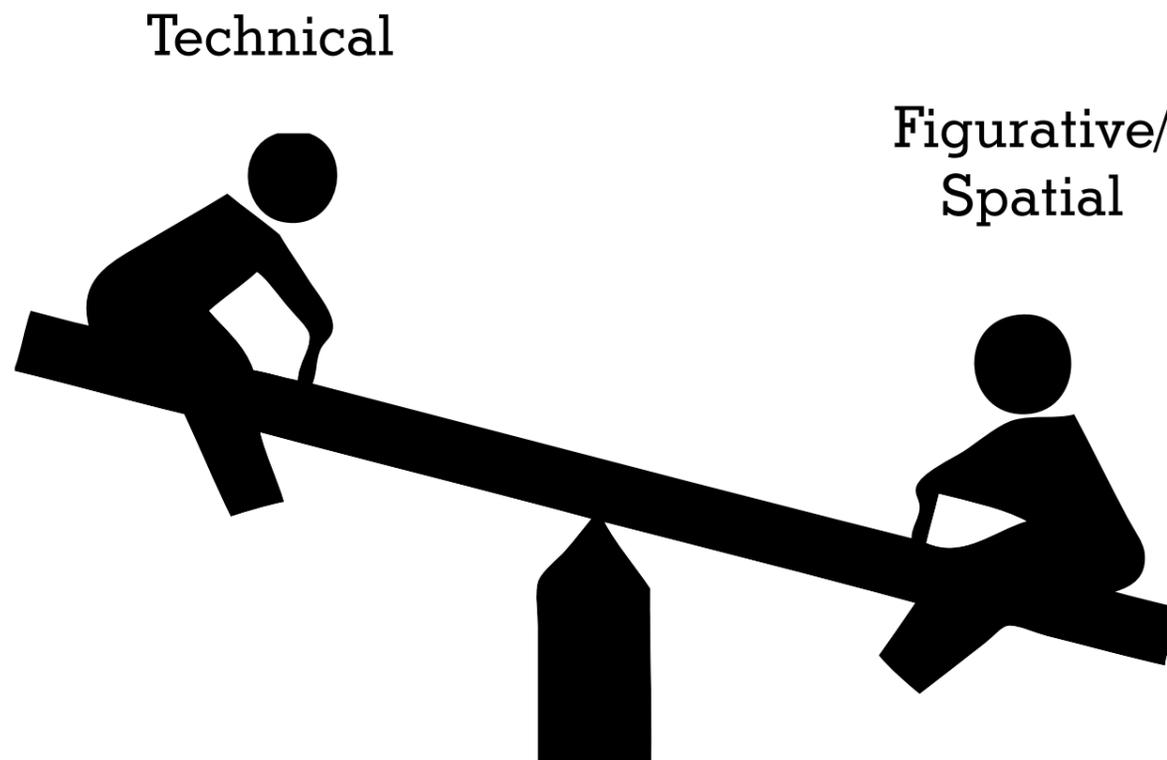
WHY

Victoria University's vision to double student numbers enables this proposition to be tested as a speculative addition to their main campus [to a resolution incorporating both the figurative/spatial and technical]

TERMINOLOGY

Facade - threshold - skin - envelope - boundary - interior space - literal and phenomenal transparency - spatial stratification - fragmentation - heterogeneity of space + elements - visibility - face vs mask - sincerity

|| HOW



Mapping

Site Analysis

Literature



Typology of the facade

Massing Studies

Geometric Studies

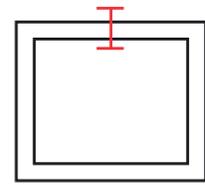


Testing on site
across multiple
scales



Inserting
program

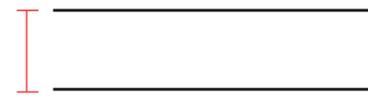
PROBLEM PROPOSITION



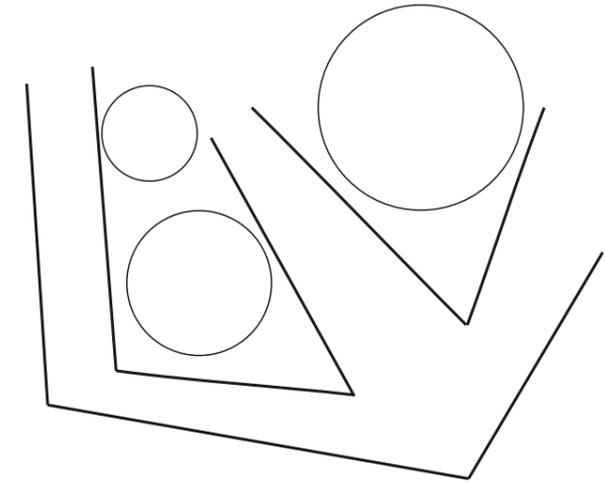
Area investigated:
facade.



Remove and study
withing proposed
theoretical framework

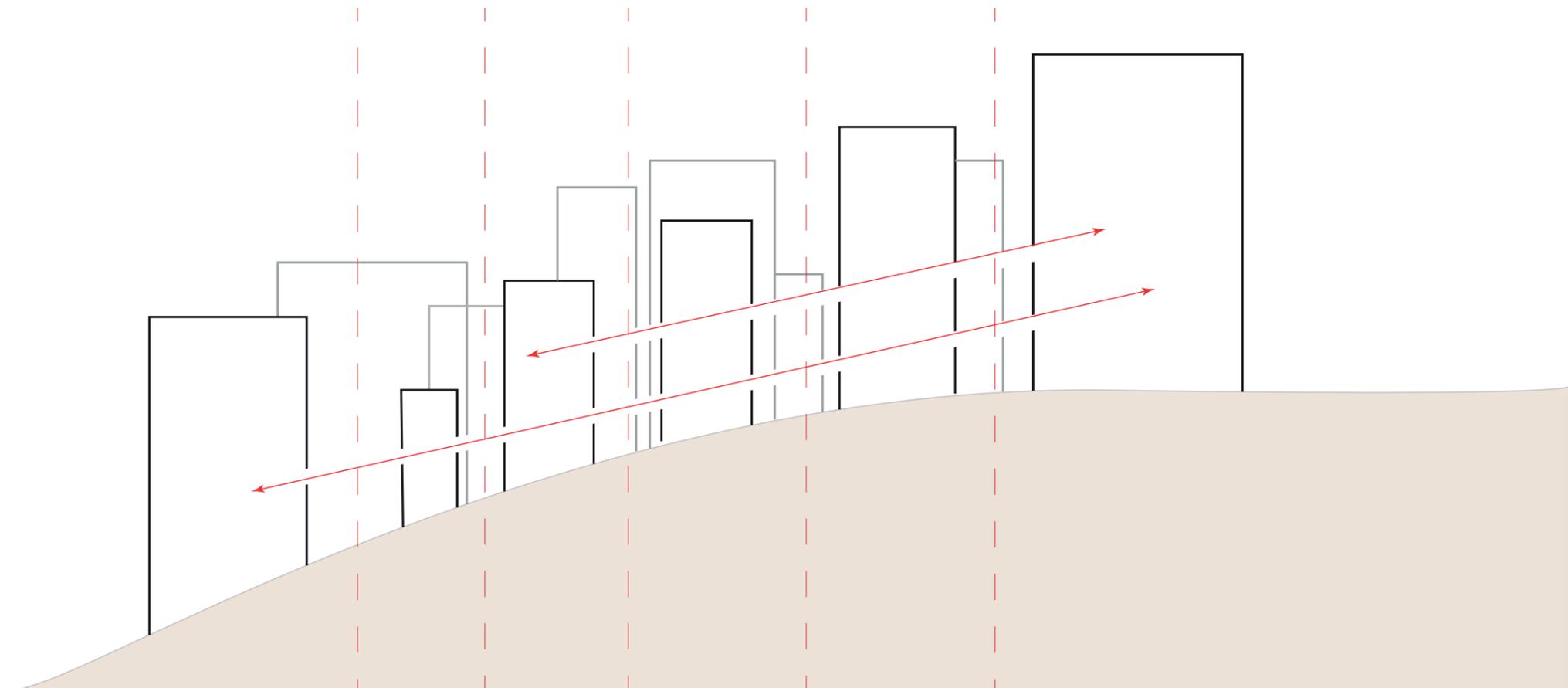


extended breadth
thus evolving into
a physical threshold

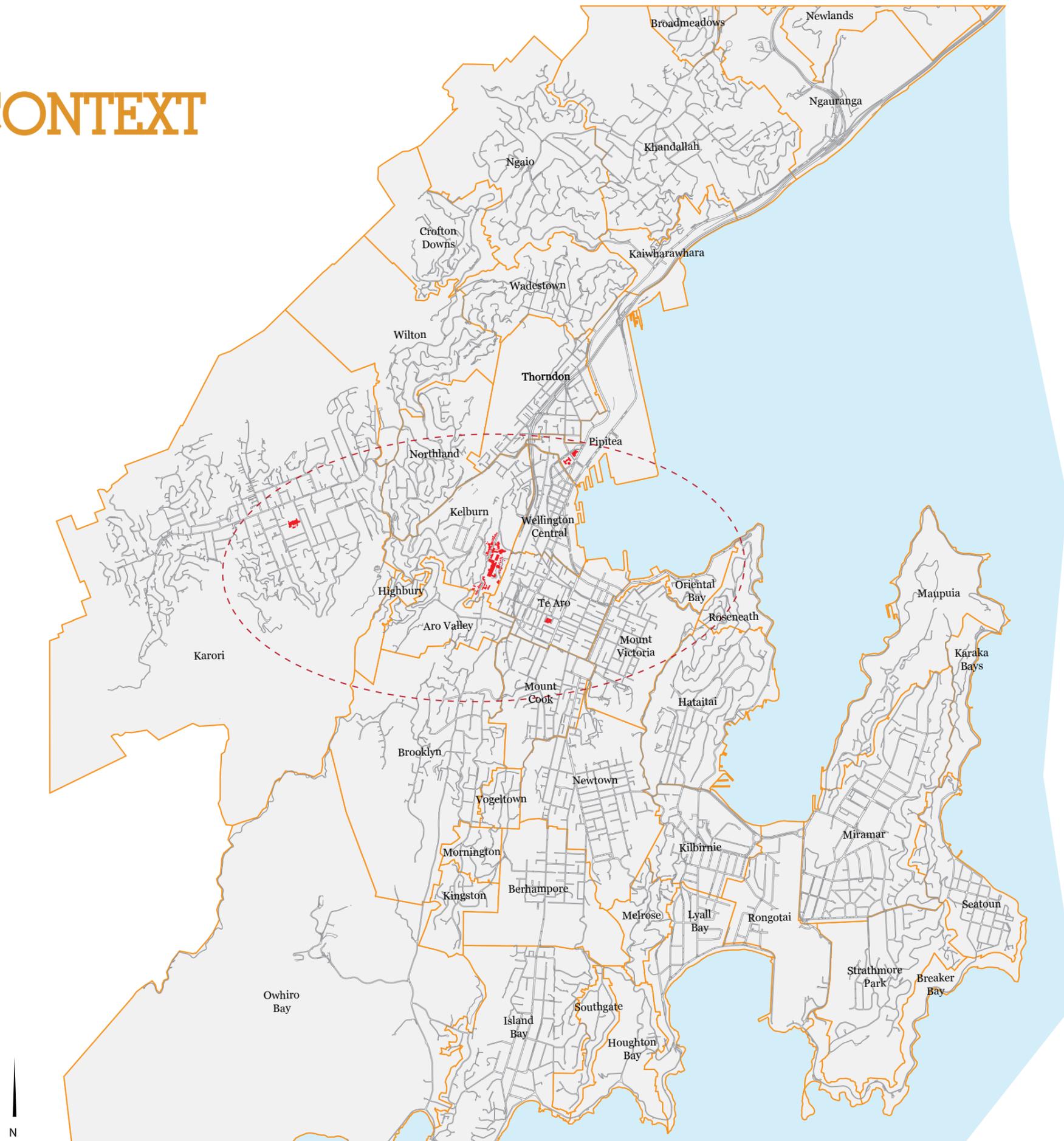


Apply newly defined and determined architecture
to the spaces and programmes in both vertical
and horizontal geometry: dividing and connecting,
giving orientation and allowing for circulation.

Anticipated
outcome with
geometrical orien-
tation of the thresh-
hold providing
connectivity across
site in the vertical
and horizontal.



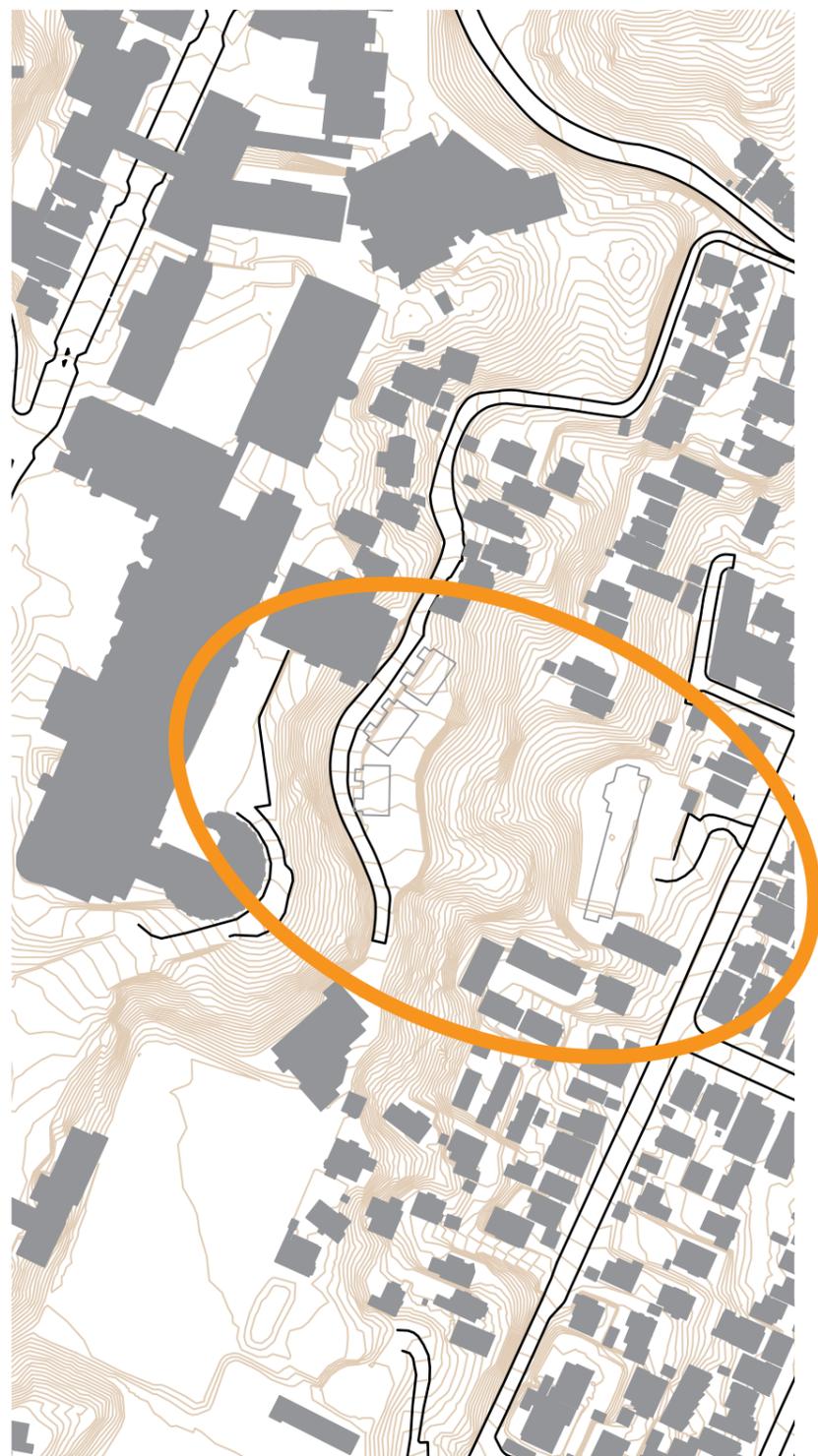
SITE & CONTEXT



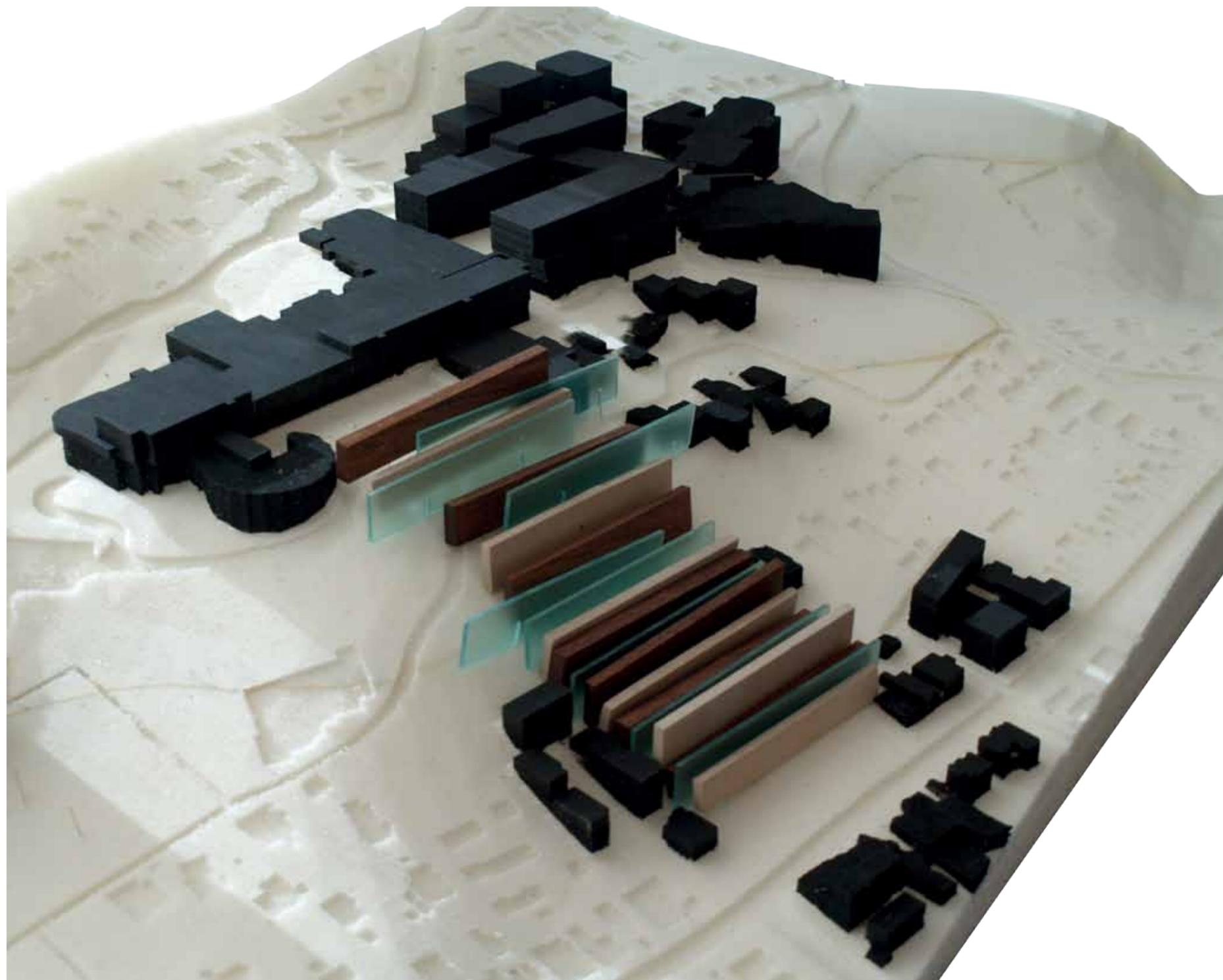


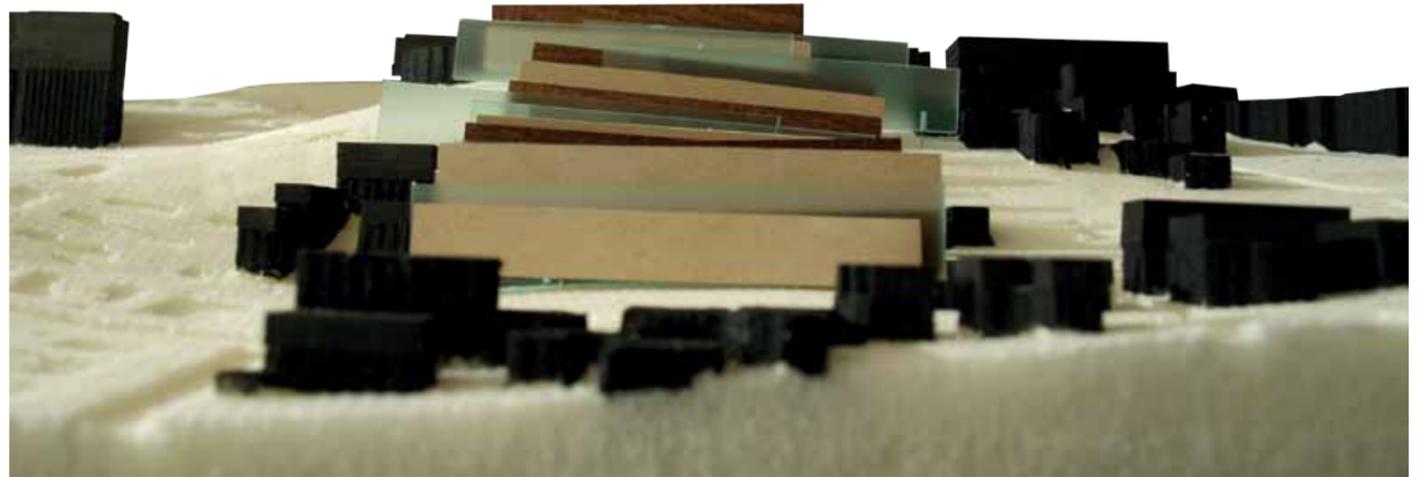
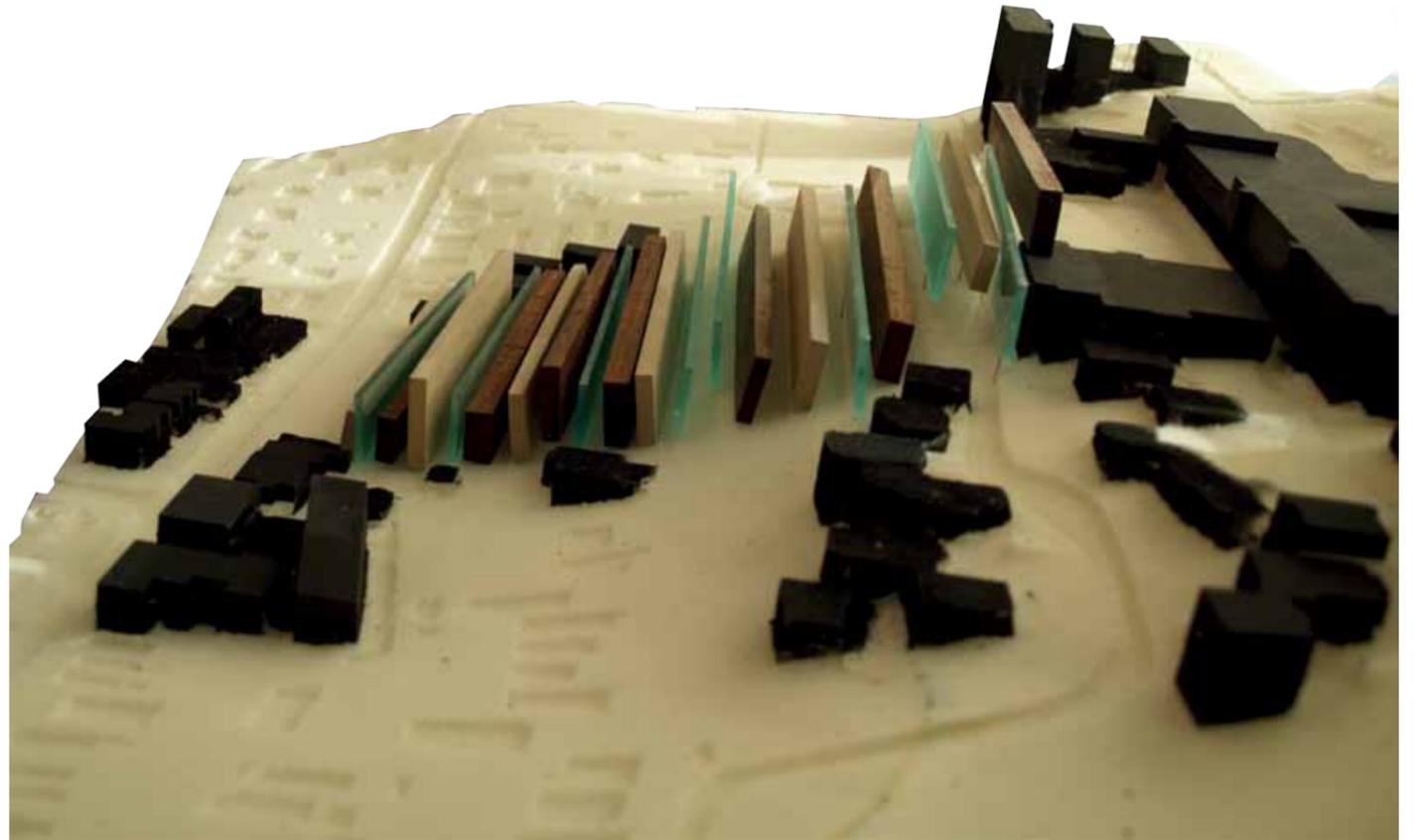
Massing studies on a 1:500 routed site model explore the organizational gesture of movement uphill while testing iterations of modules of a slipped grid in plan and

stepped grading in section against the topography of the site. This provides a geometrical mass framework to situate the programmatic development within and against.



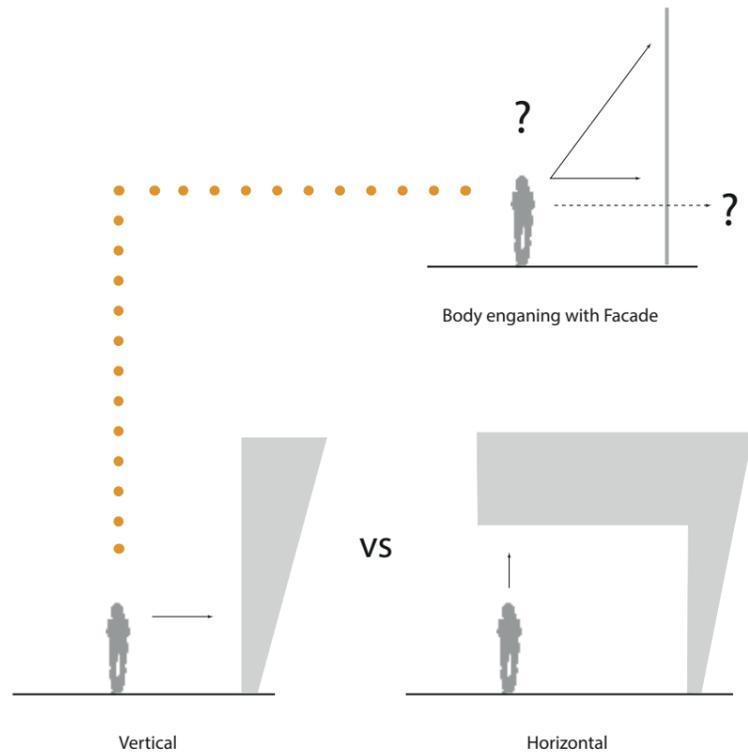
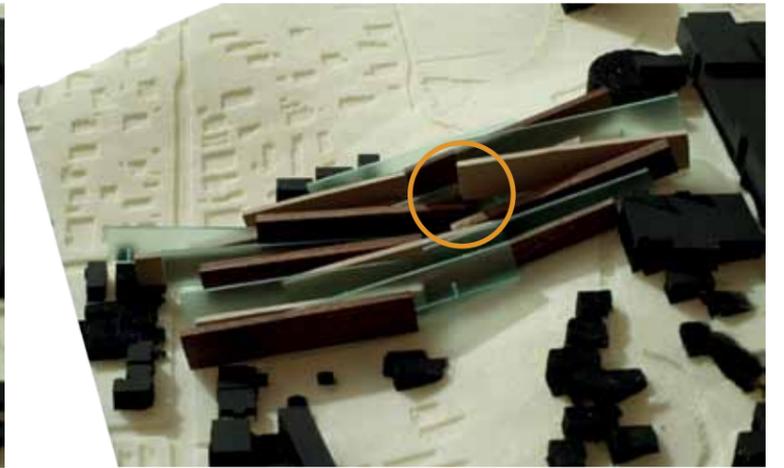
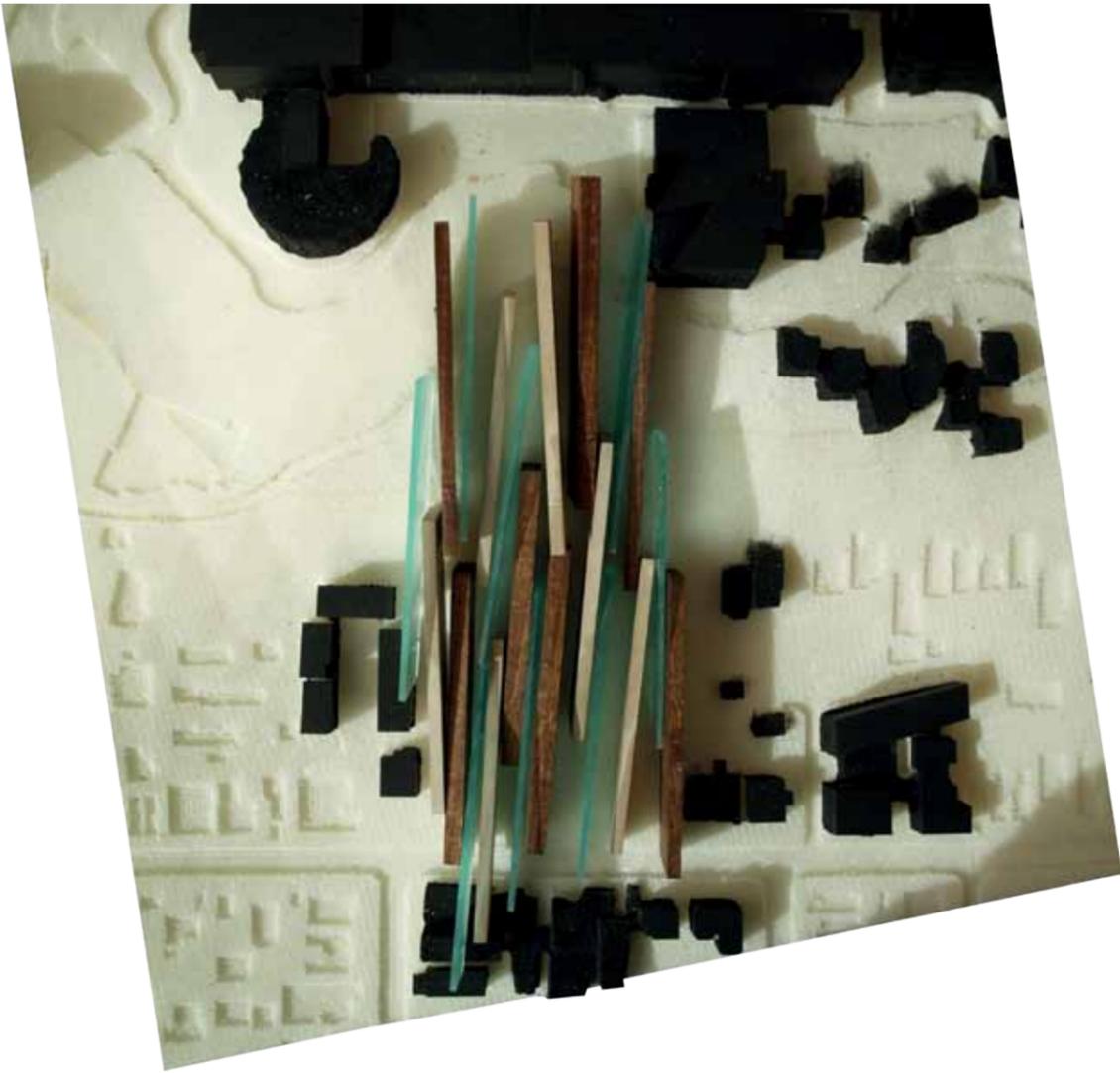
CONFRONTATIONAL CONTOURS

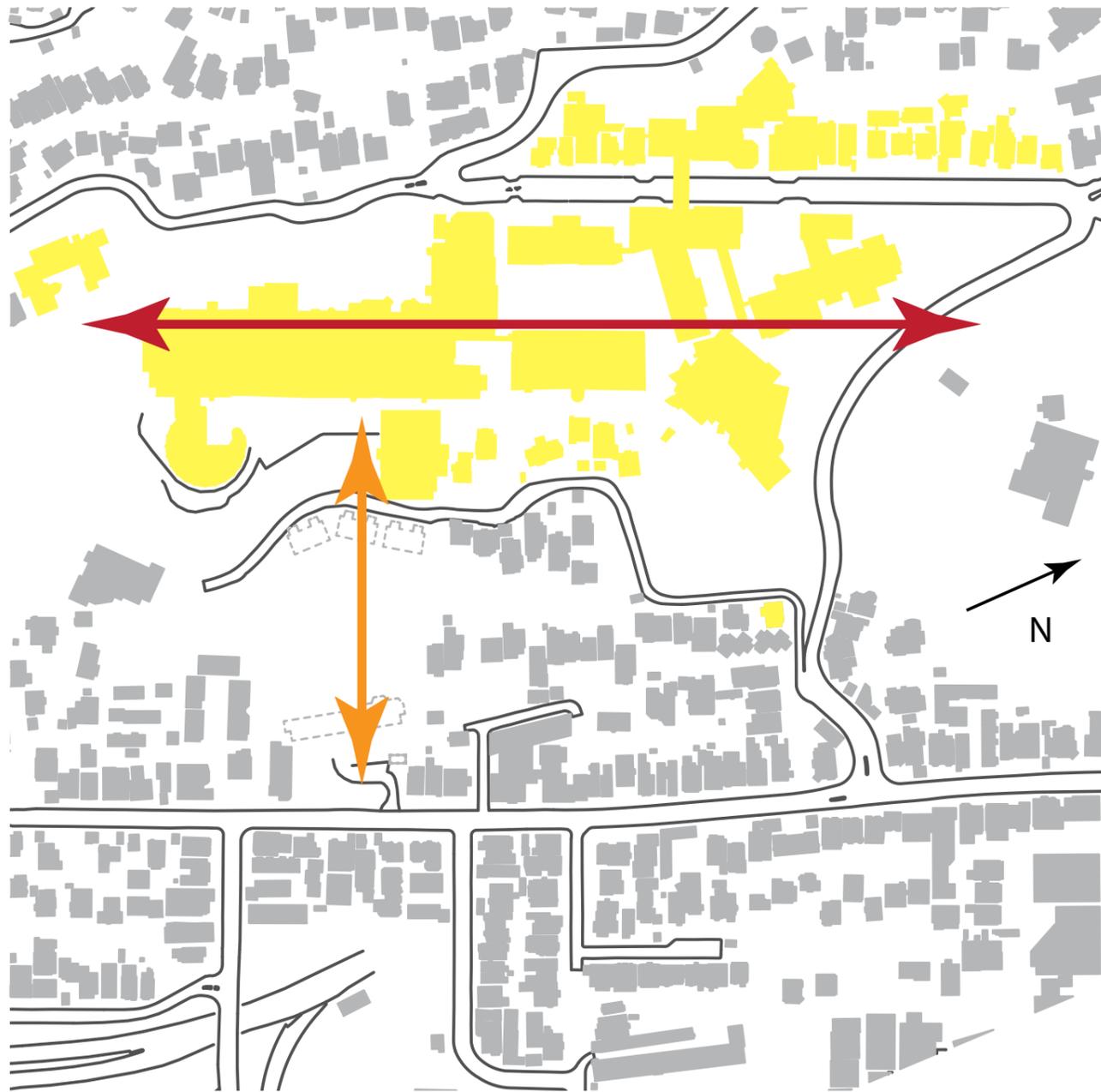




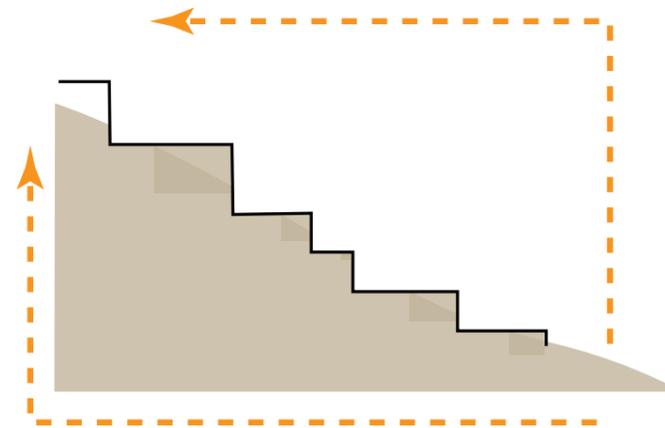
ITERATION 1

ITERATION 2

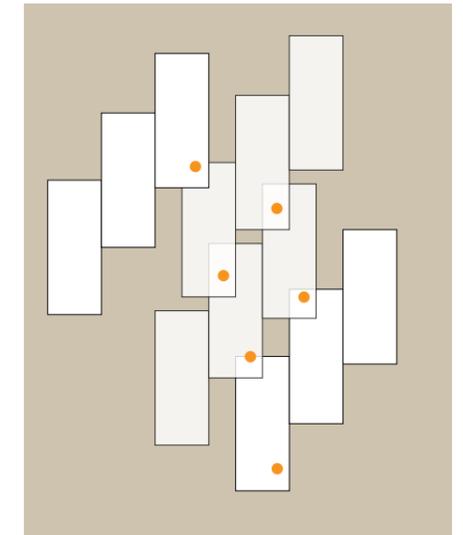




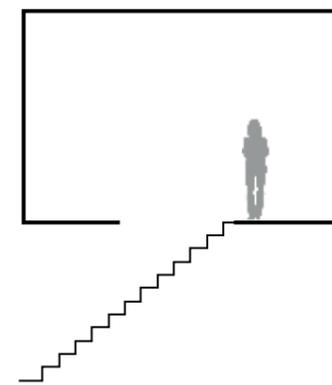
FACADE & VERTICALITY



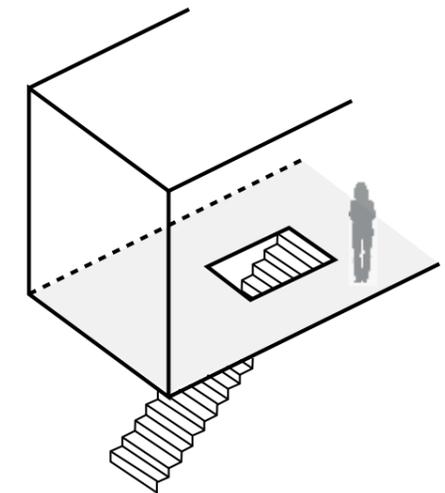
Section
Stepped Grading



Plan
slipped grid
• Circulation Points



Section
Circulation Connection



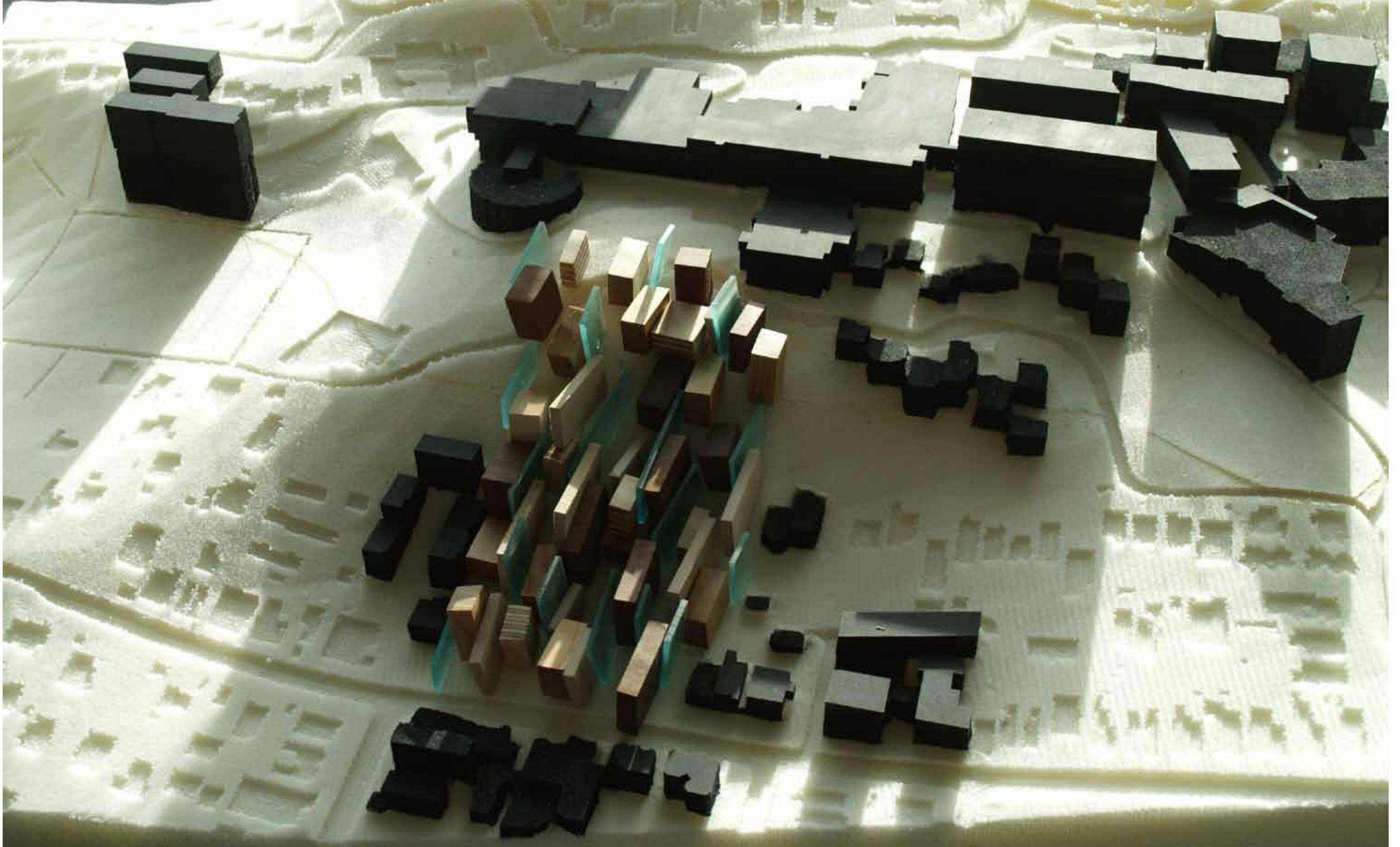
Perspective
Circulation Connection

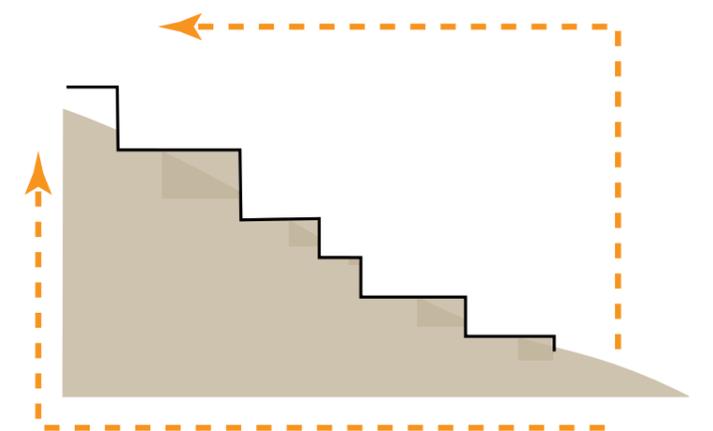
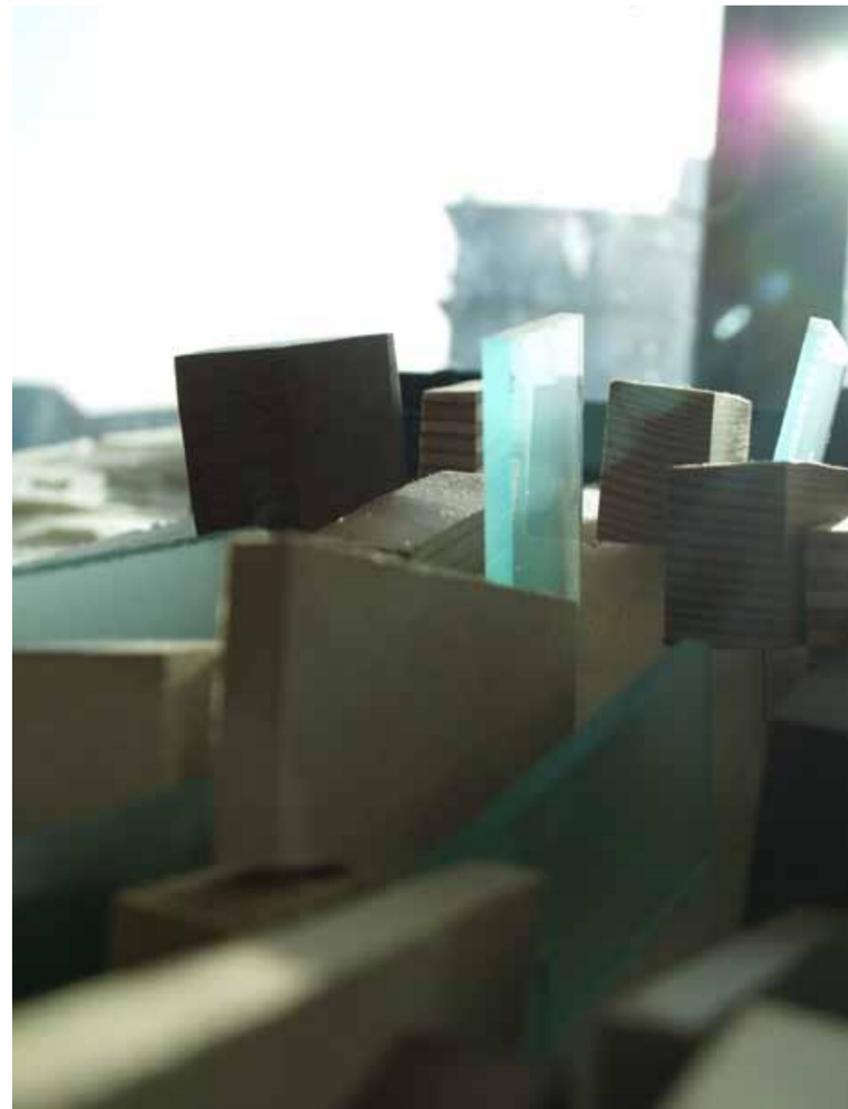
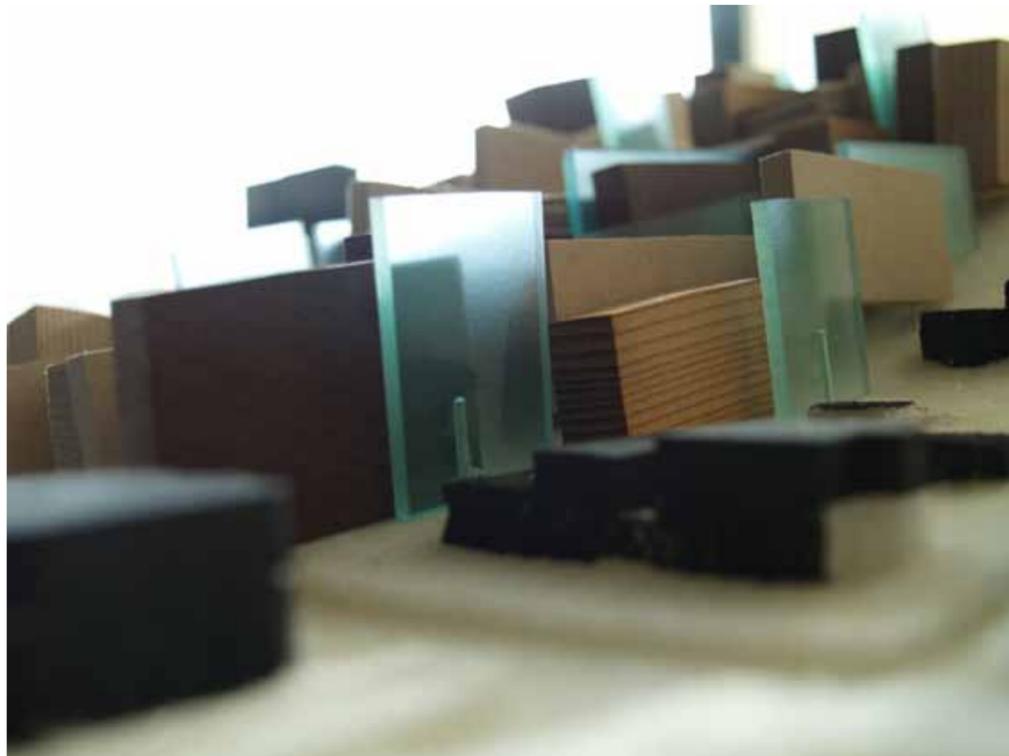
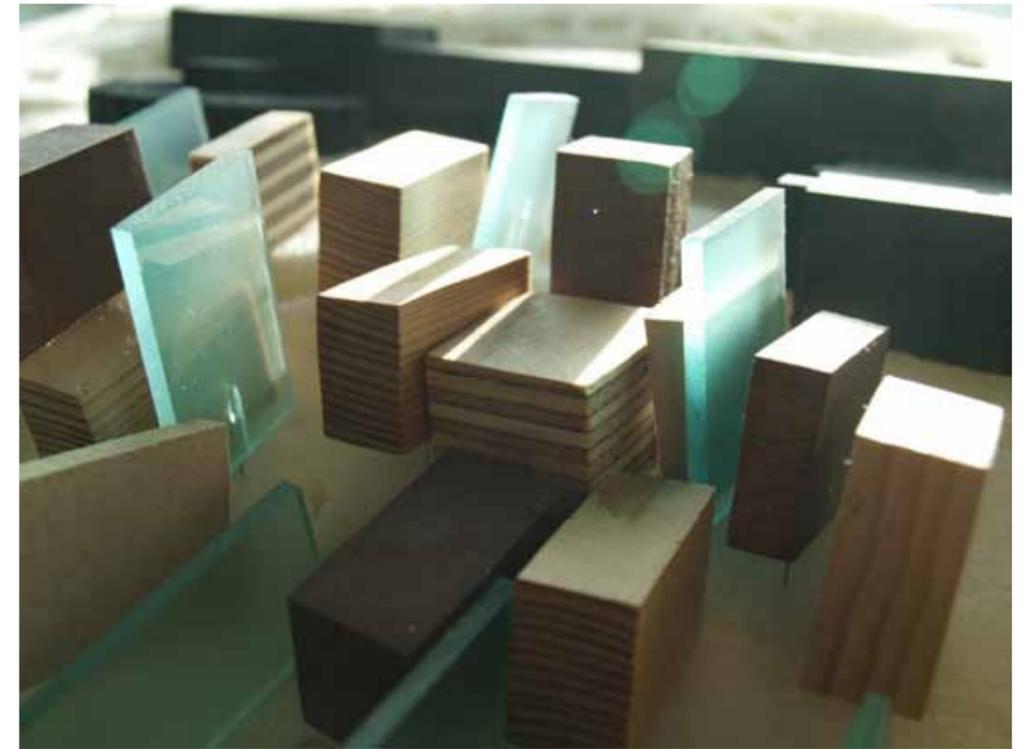
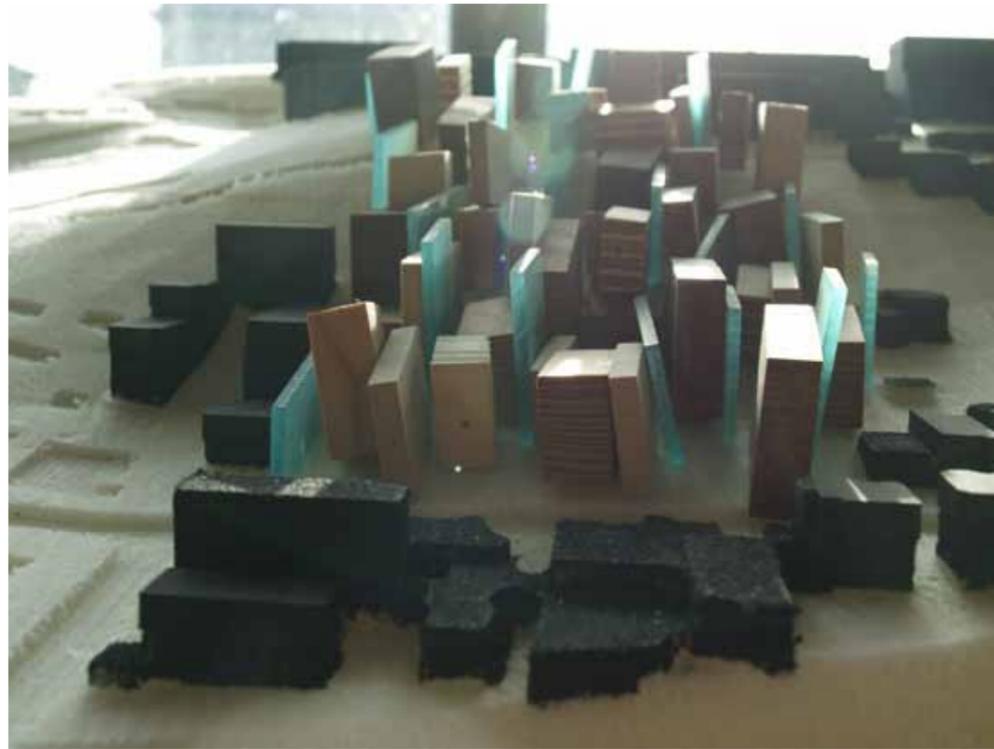
The main preliminary result of the theory and case study informed massing studies is the effect of rotating the orientation of the geometry by 90 degrees from the horizontal into the vertical. This flip in orientation of the façade versus the now novel experi-

ence of and engagement with the façade brings forward strong options for resolving vertical movement uphill. This relationship of the angular dynamic towards the existing Kelburn Campus with its movement and alignment across the site is explored

by breaking down the site into modules. Thus threshold is brought back into focus through the concepts of gateway, façade and educational space ranging through the layers of heterogeneous space through to internal micro façades.

ITERATION 3

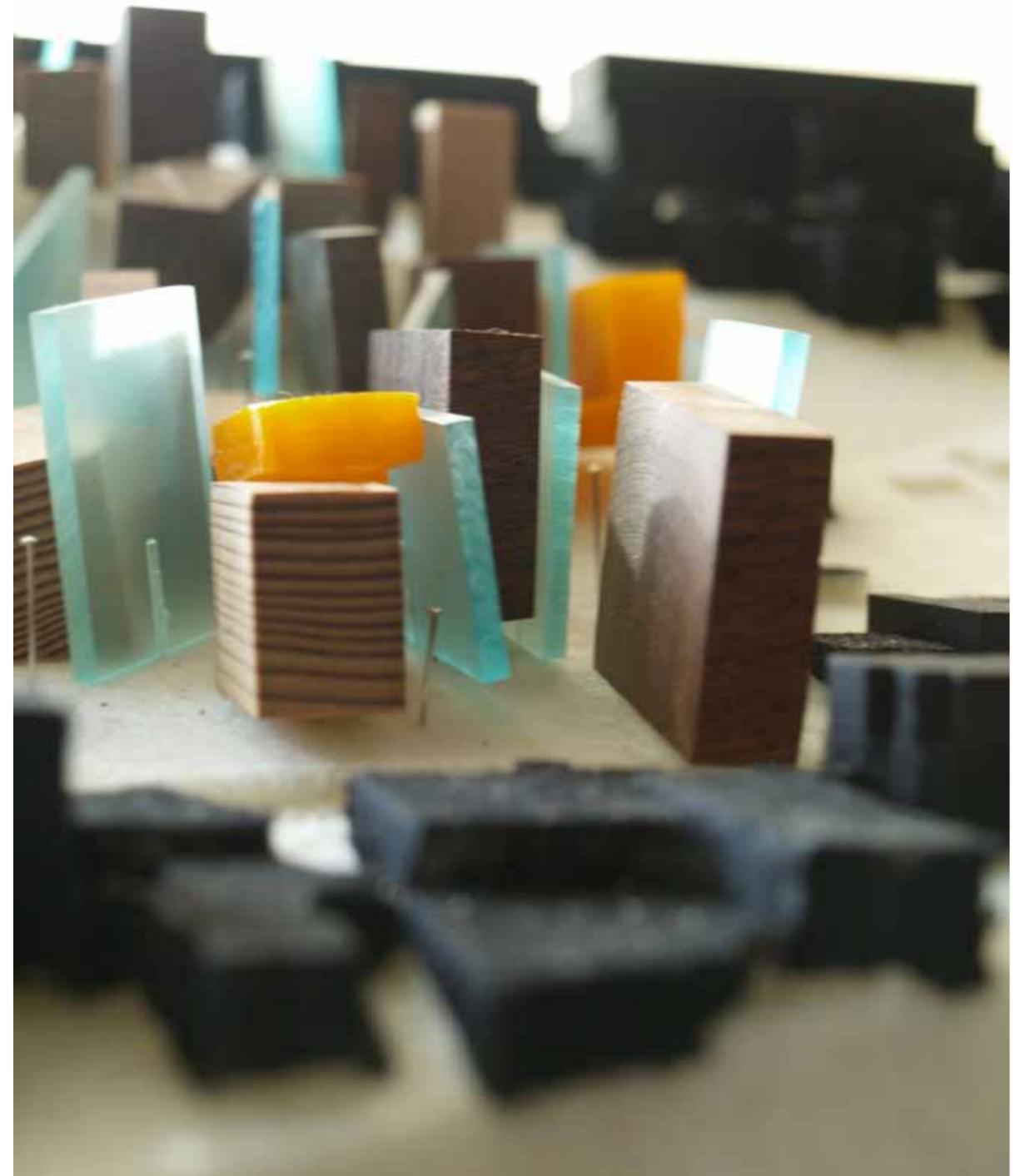
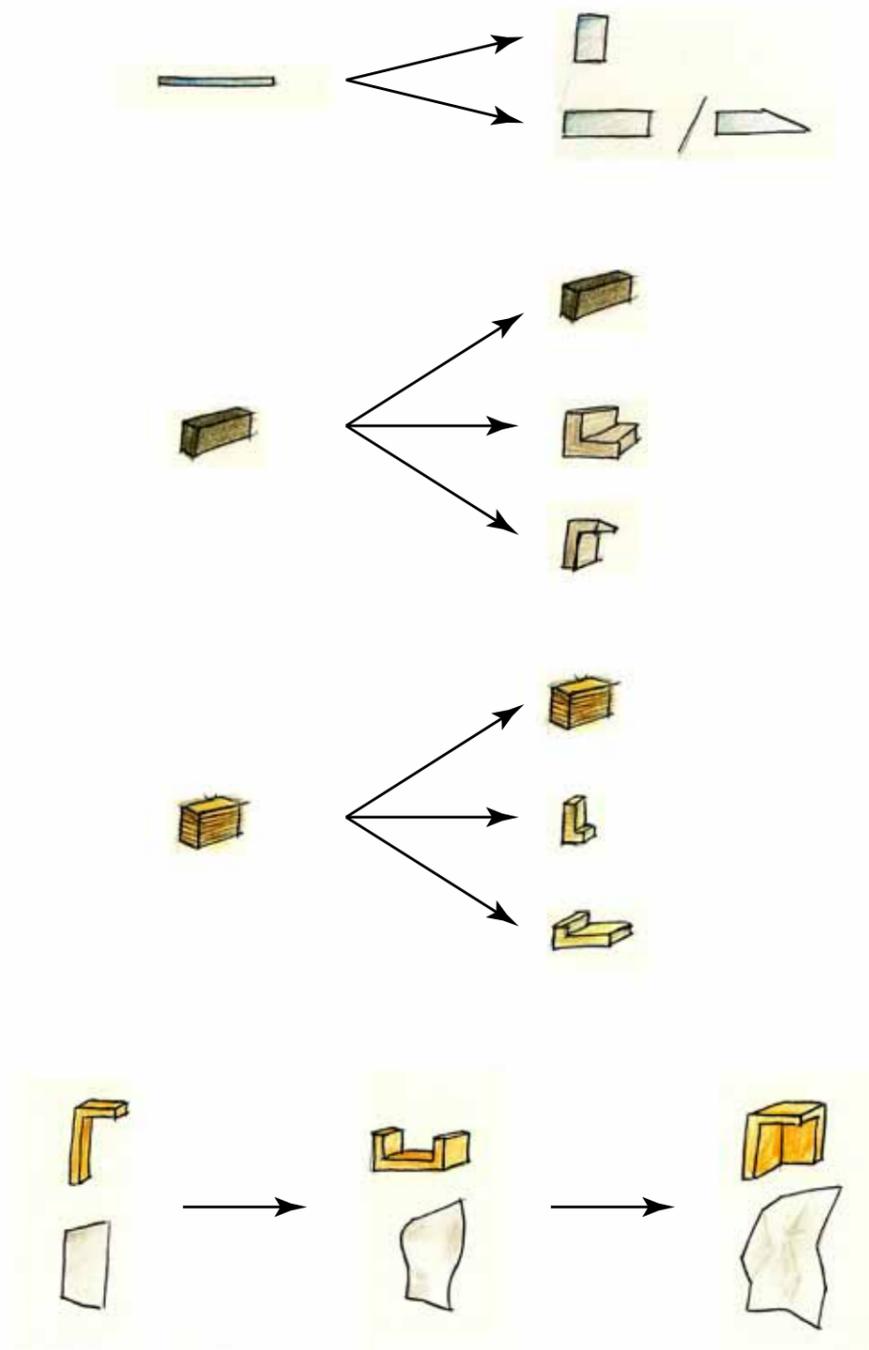




Section
Stepped Grading

LEGO & LECTURE THEATRES

Throughout the iterative modelling process a range of material has been identified to re-establish a certain degree of order across the site with the aim of legible circulation and accessibility to the public and students alike. These initially three primary elements have then been modified and moulded to express a range of variety within given the scale of the site. To then bring legibility and orientation back into the urban scale a 'wild card' was drawn: bright orange 3D printing. This method was primarily chosen to simultaneously break down the site into smaller, legible clusters while maintaining a visual cohesion and nodes of orientation within and across the site.



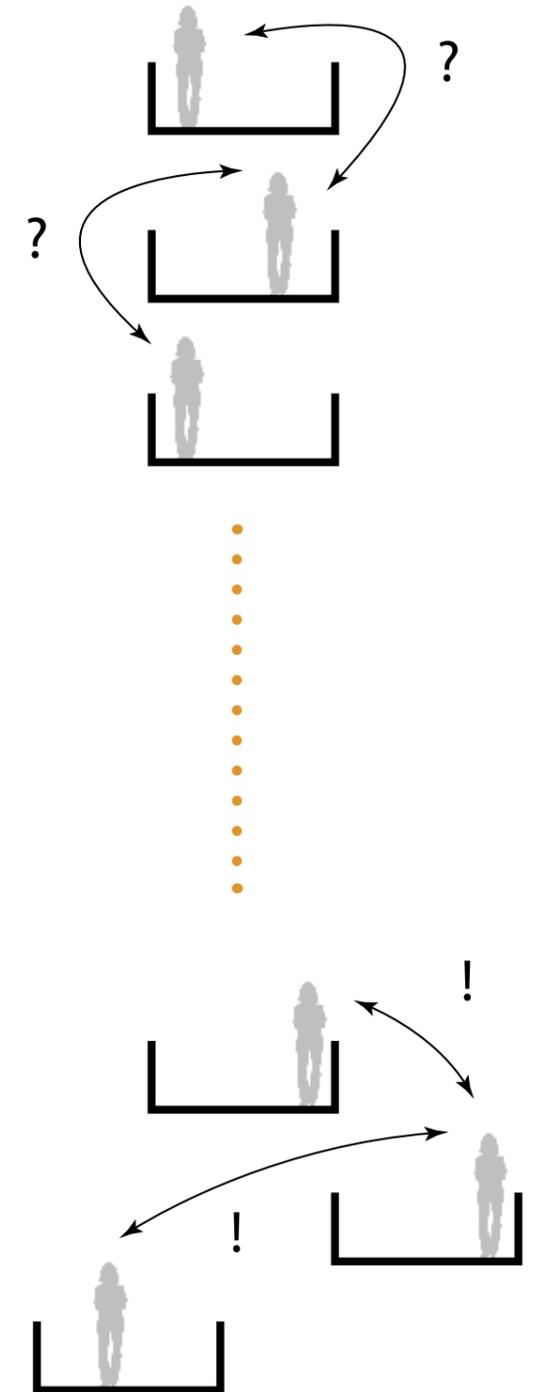
ORANGE ORDER

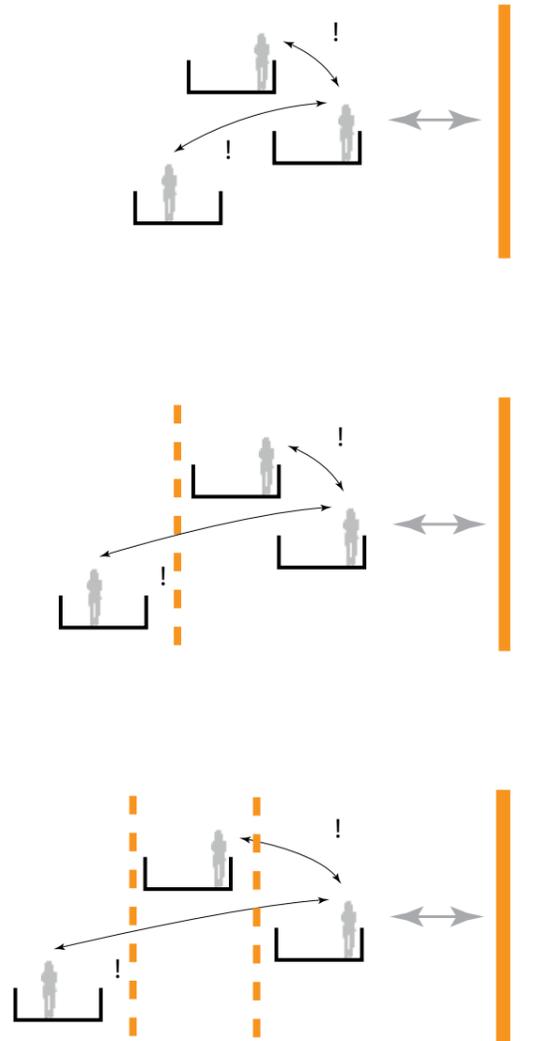
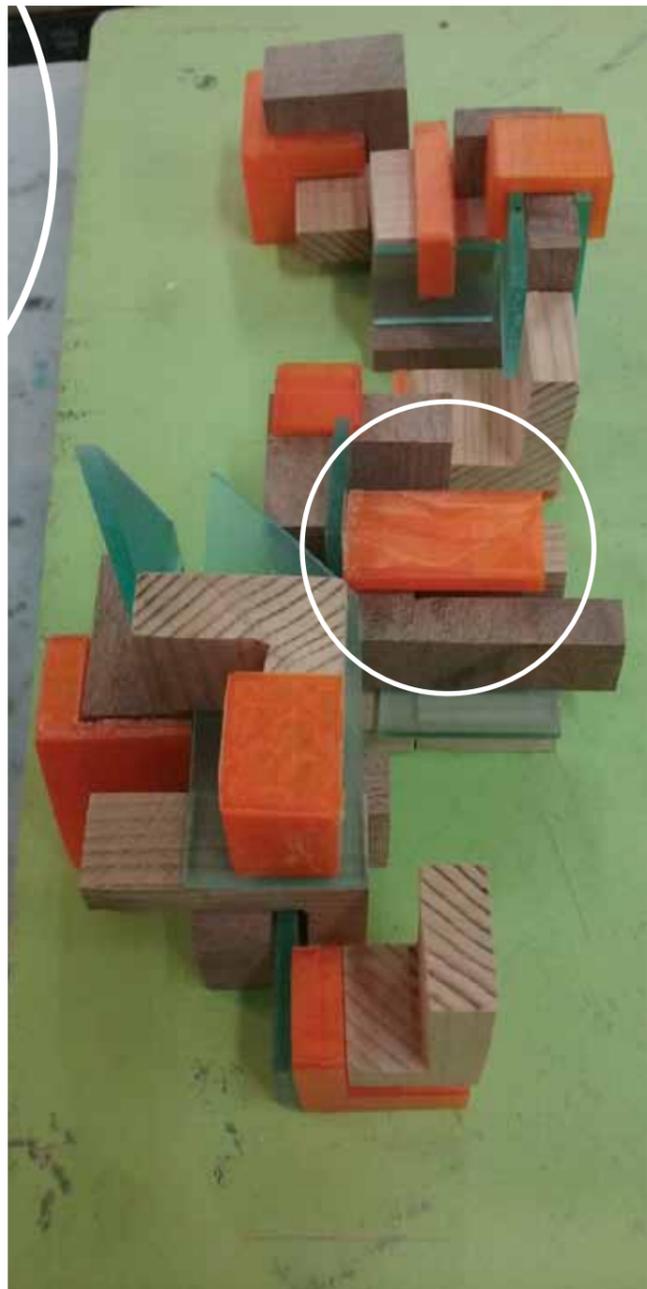
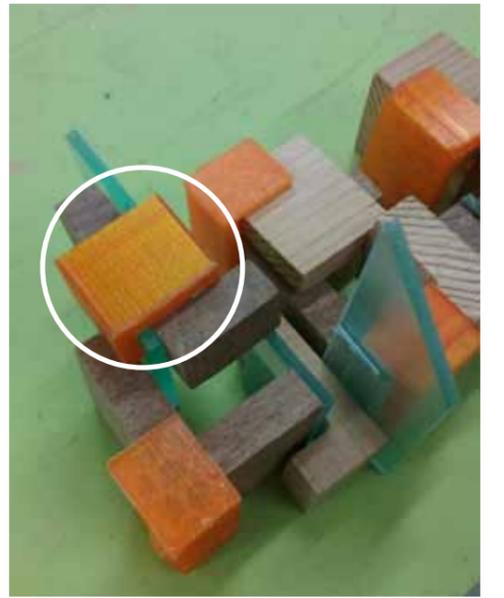
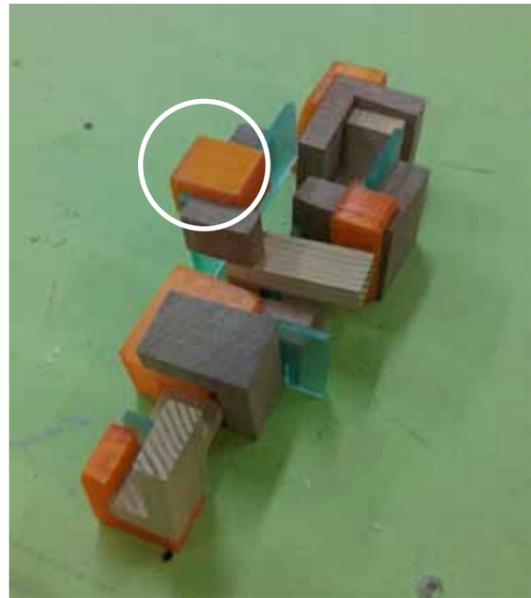
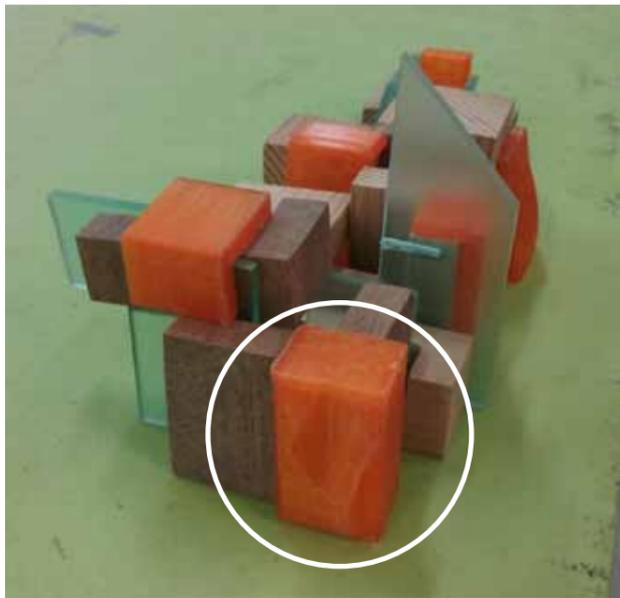


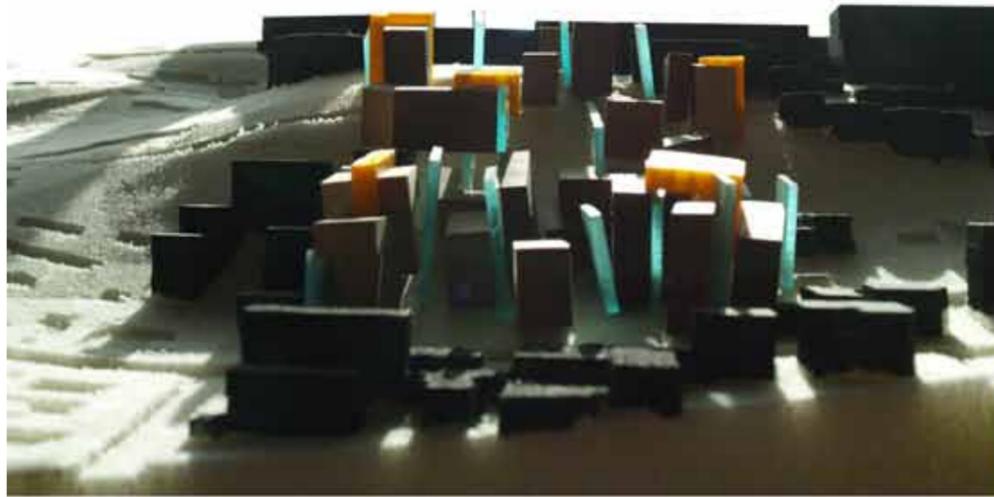
This so called 'orange order' was then explored and tested to its maximum capability under the premises of:

- 1) Structuring the site
- 2) Breaking down/ disruption rigidity of primary materiality and form
- 3) Anchoring moments on urban scale

It was found that a dramatic increase in 'orange legos' was counterproductive to the aim of the research through design as it became highly confusing. Yet brought forth validity of higher density massing. Furthermore it reinforced the distant aim of extending the notion of façade into the interior to create internal micro-facades and elevated outdoor spaces while maintaining visibility in-between.



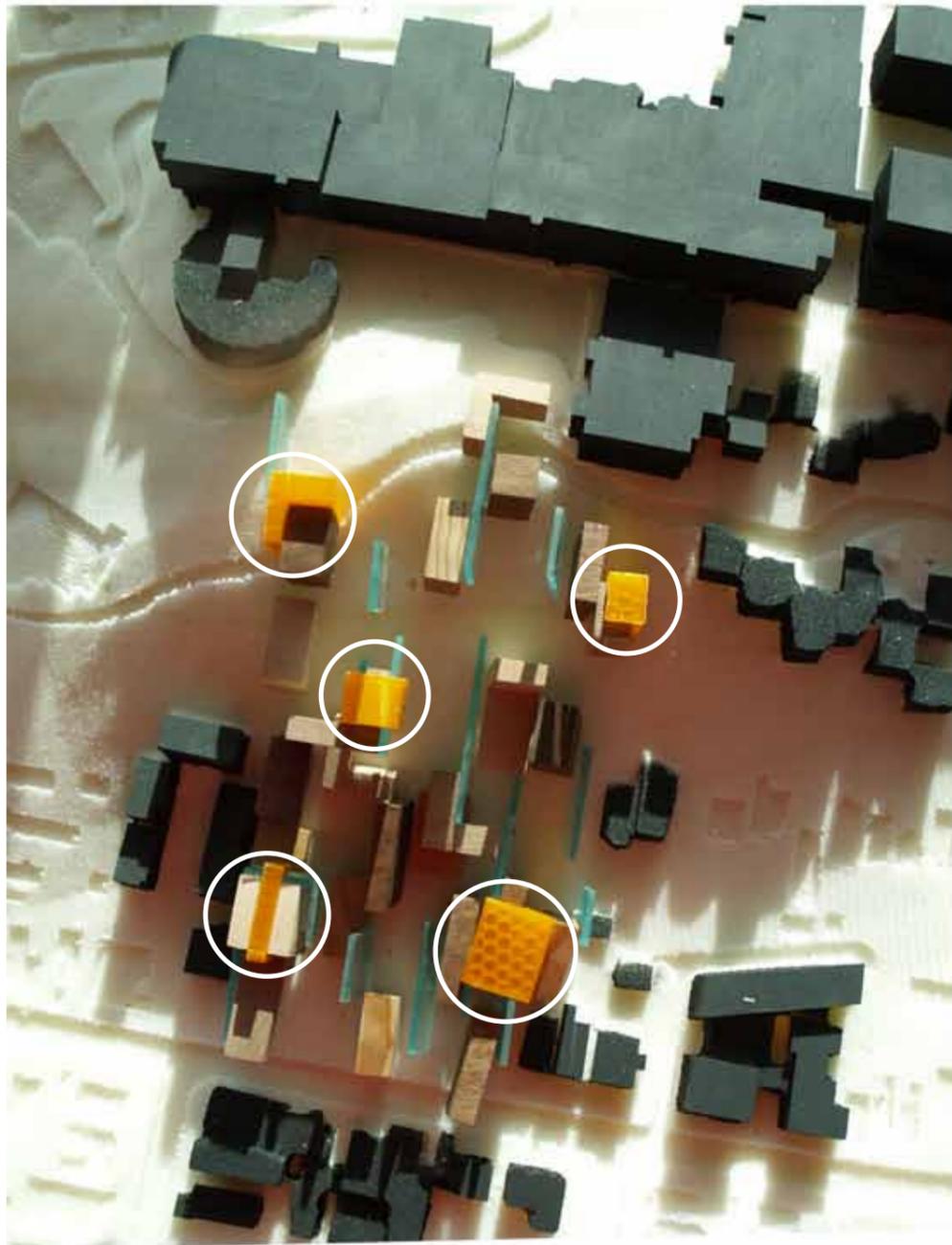


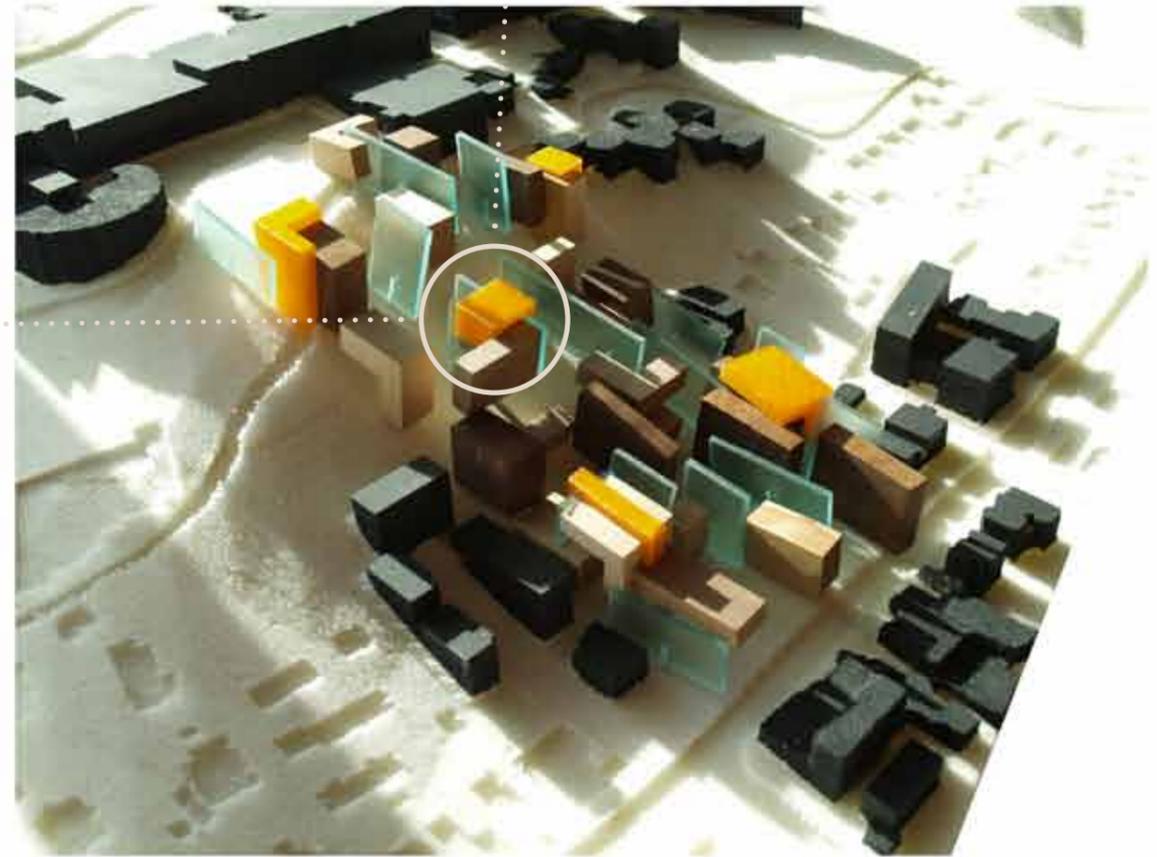
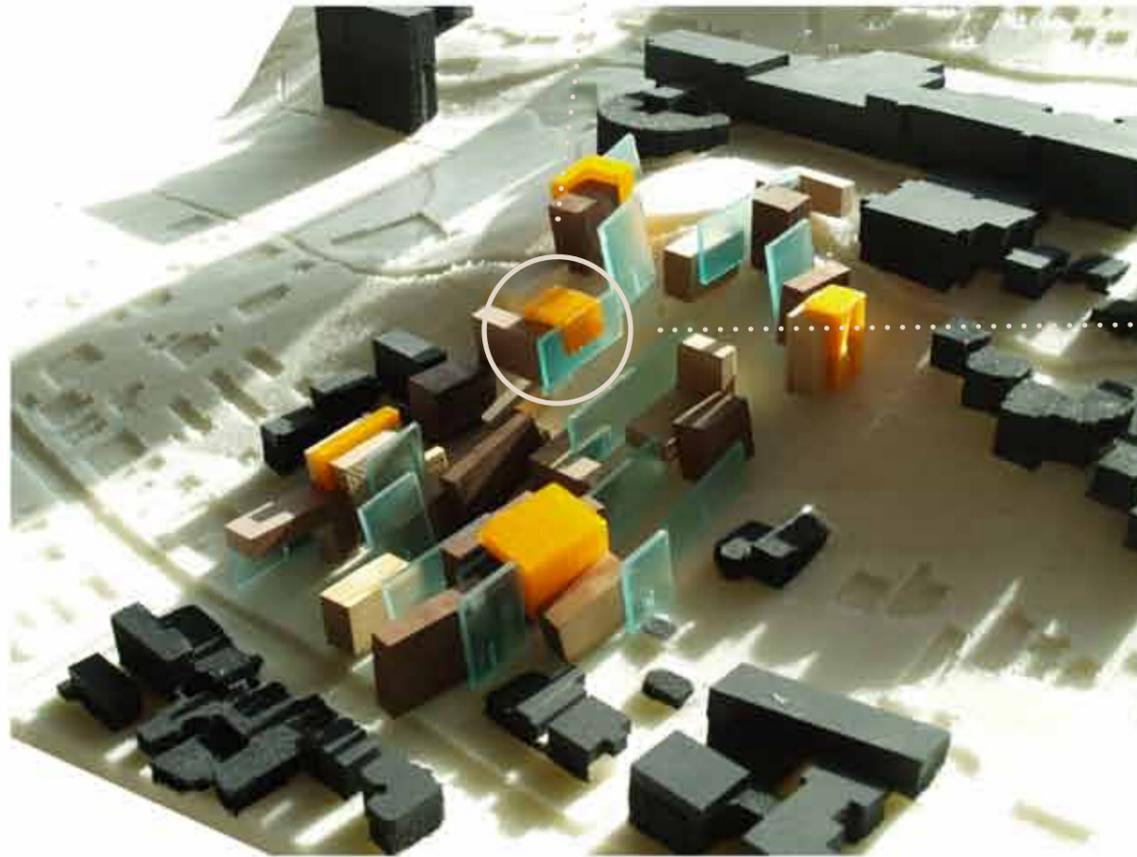
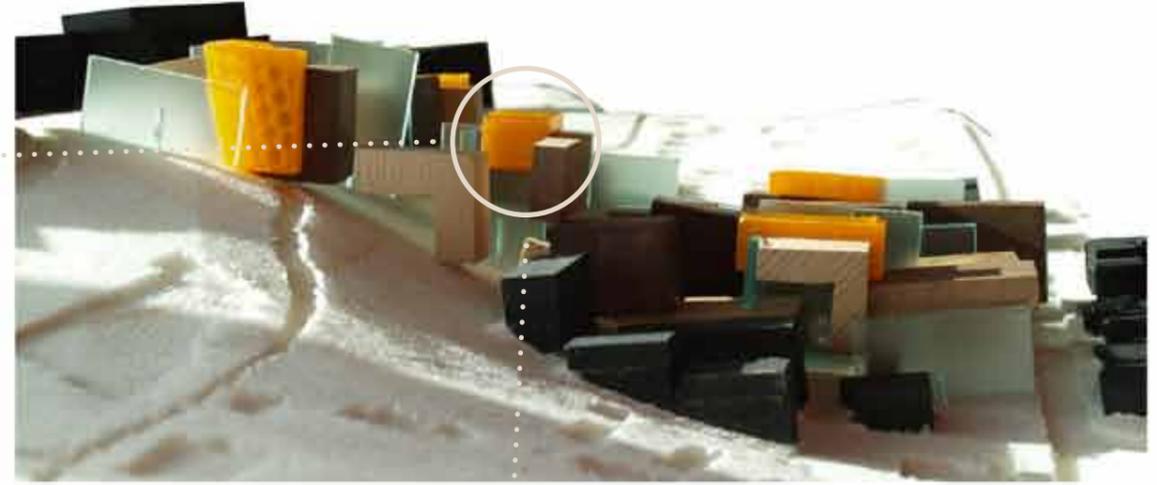
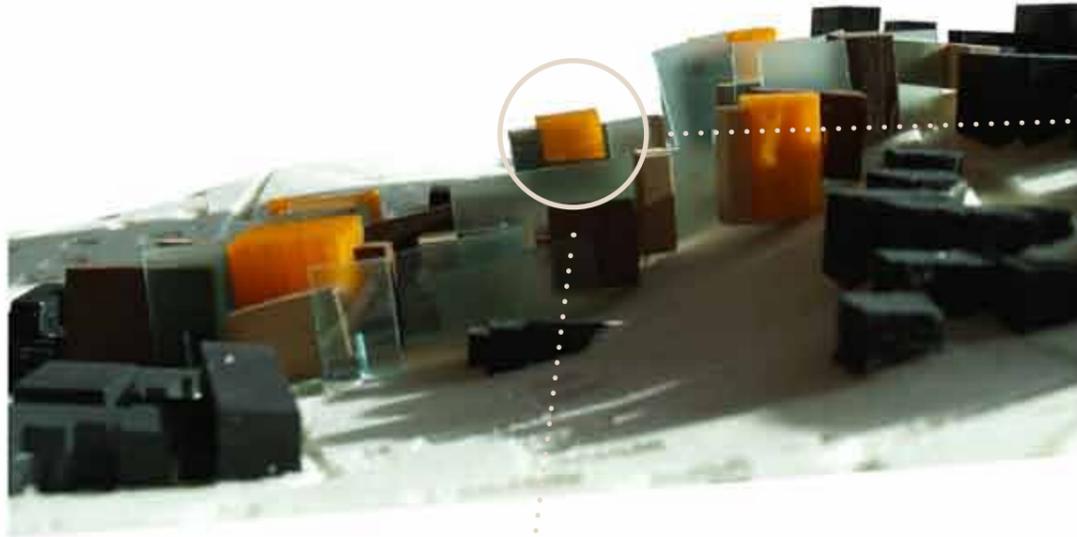


ITERATION 7



While disregarding optimum urban density across the site this iteration explores a maximum of 5 key 'lego' moments to return to the main incentive of establishing urban legibility and visual orientation across the site. Wherever you are on the site or around the site these 5 different scaled and formed elements will be indicative of your location and direction across site.



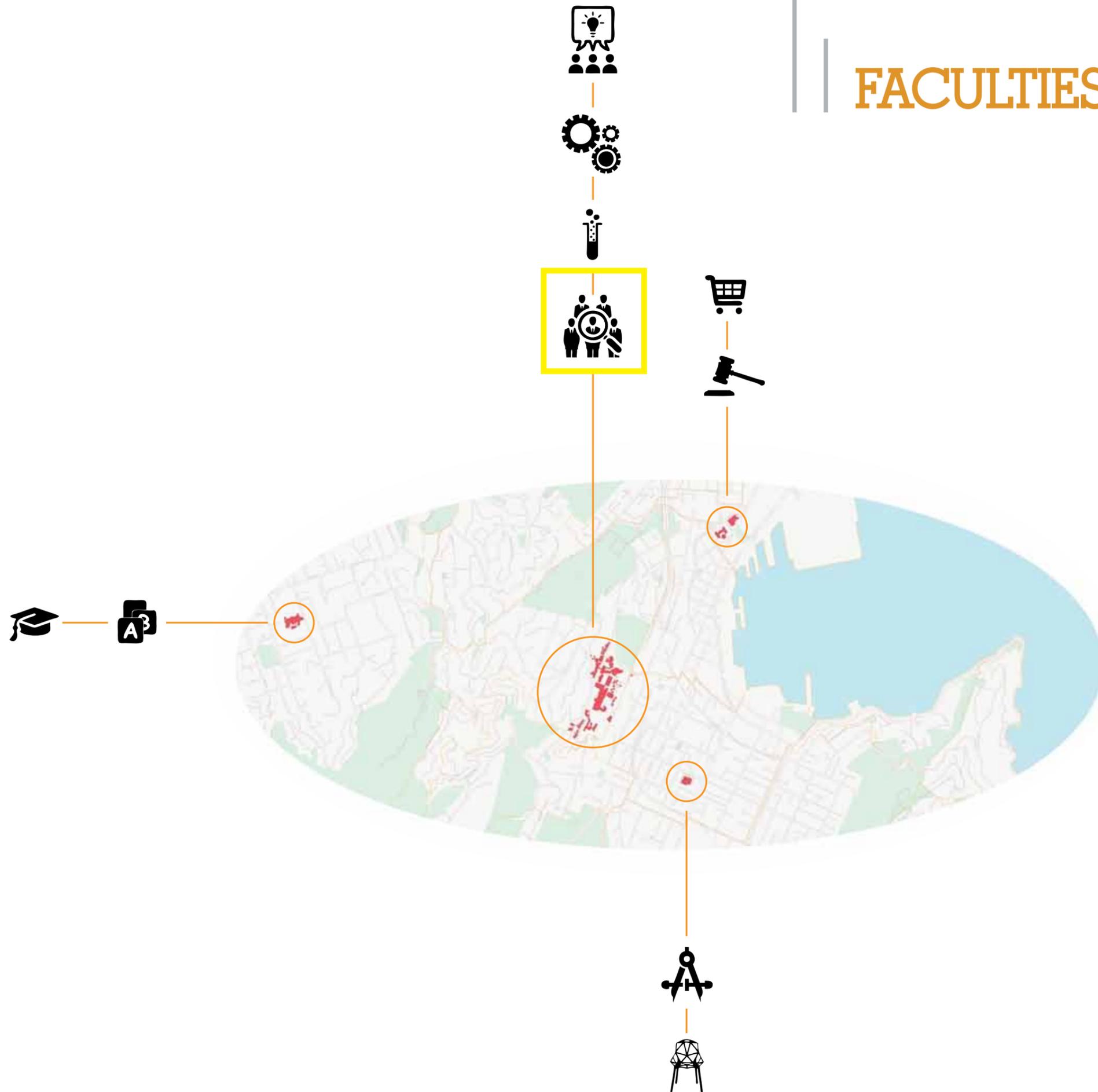


PROGRAM

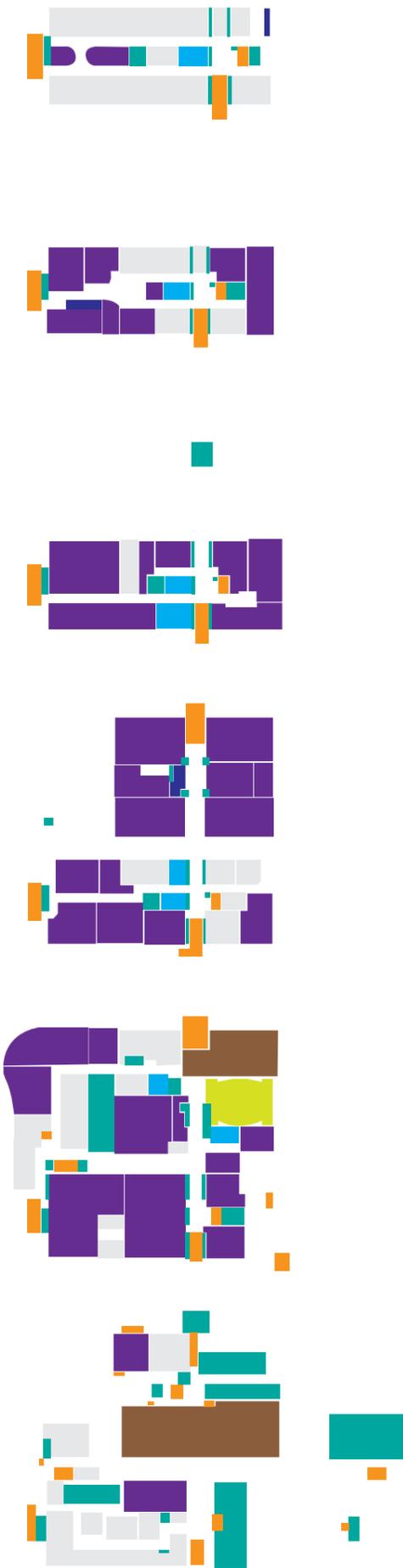


FACULTIES

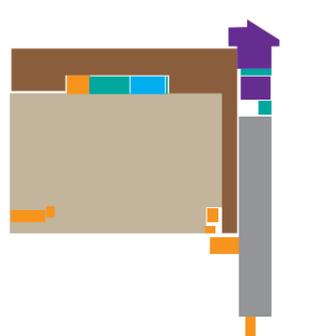
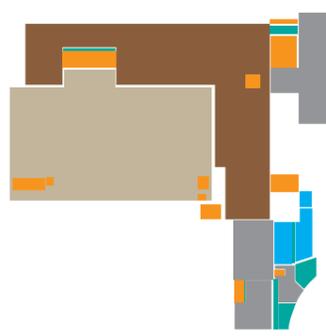
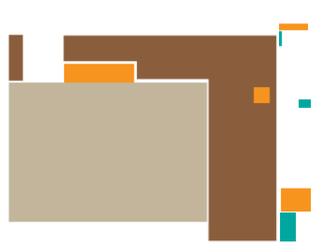
As this research has a programmatic focus on Post-graduate students the faculty of graduate research offers a unique opportunity to broaden their literal footprint within Victoria University's Kelburn Campus.

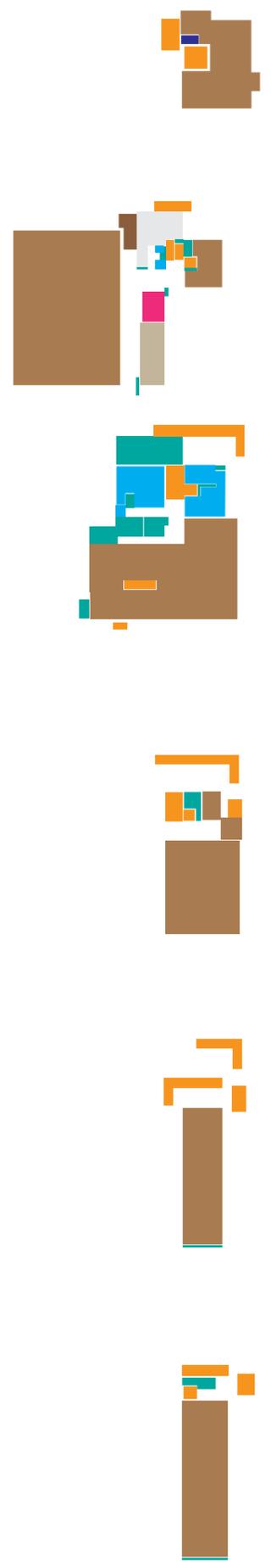
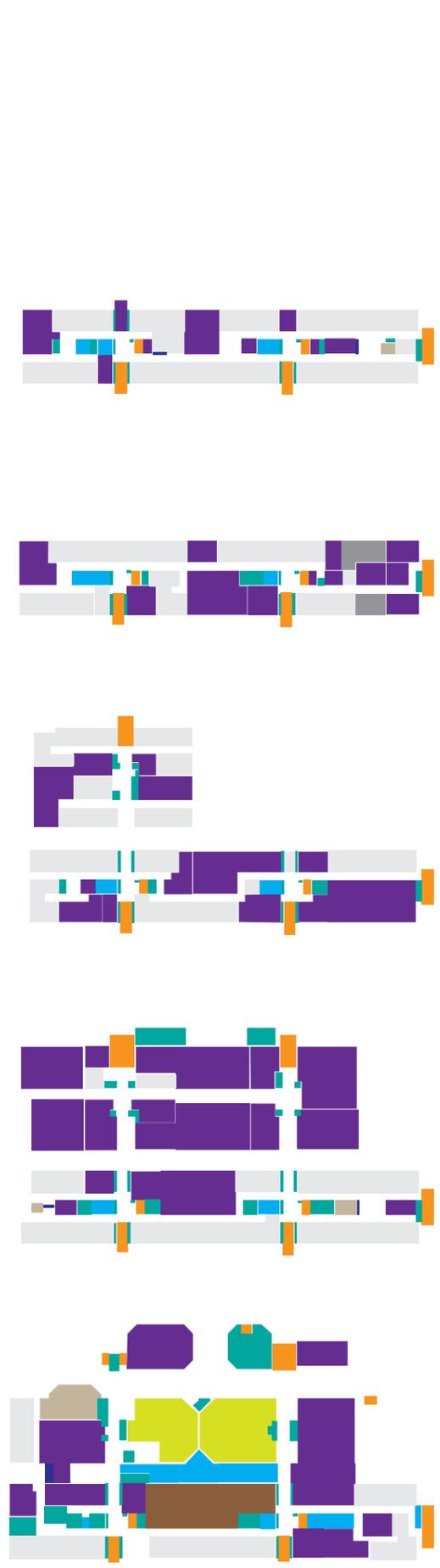


-  Atrium Space
-  Bathroom
-  Car Park
-  Circulation - horizontal
-  Circulation - vertical
-  Commercial
-  Exercise Area
-  Kitchenette
-  Lab
-  Lecture Theatre
-  Lounging
-  Office
-  Outdoor Areas
-  Reception
-  Services Cleaning Printing
-  Tutorial/Meeting Room



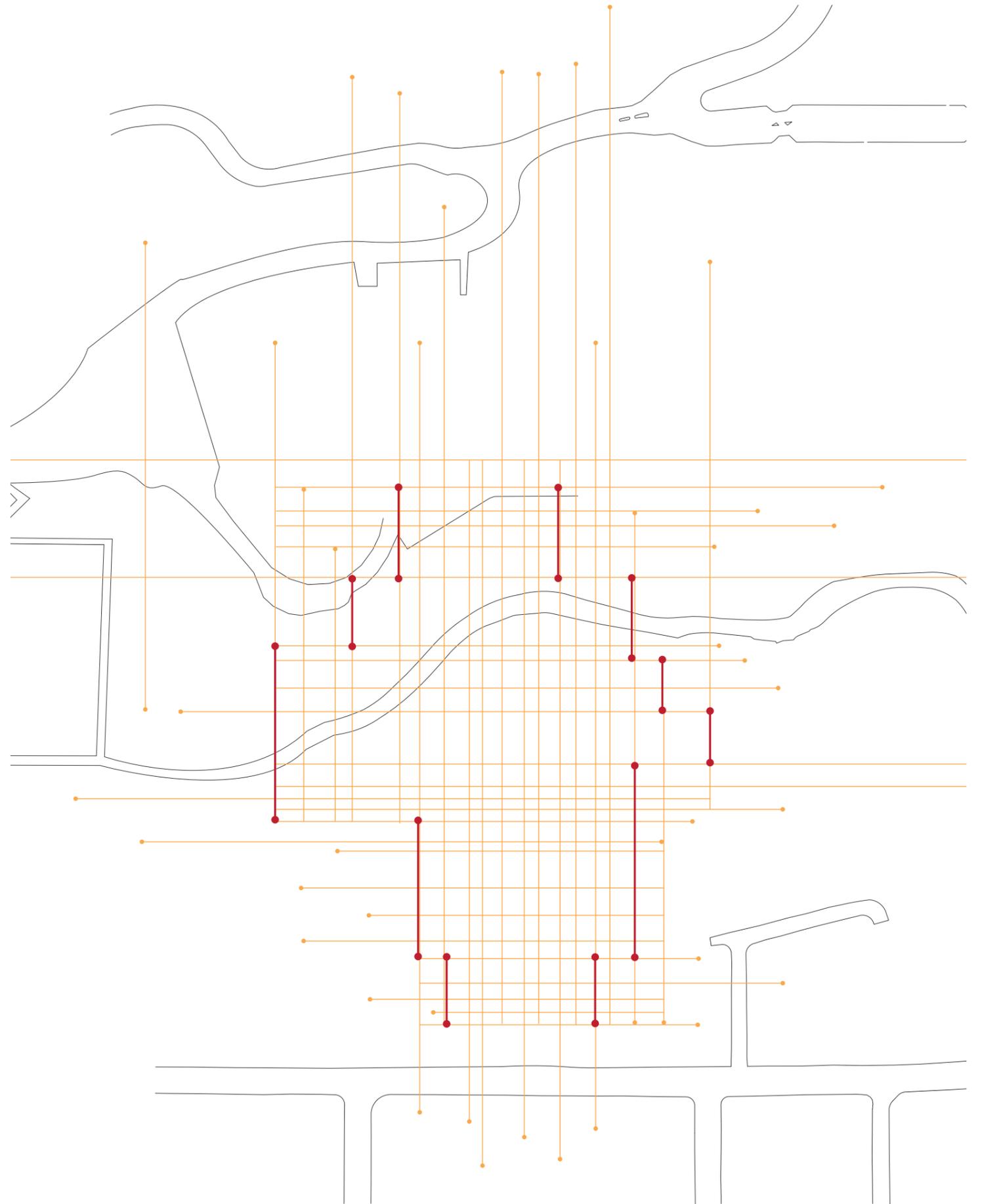
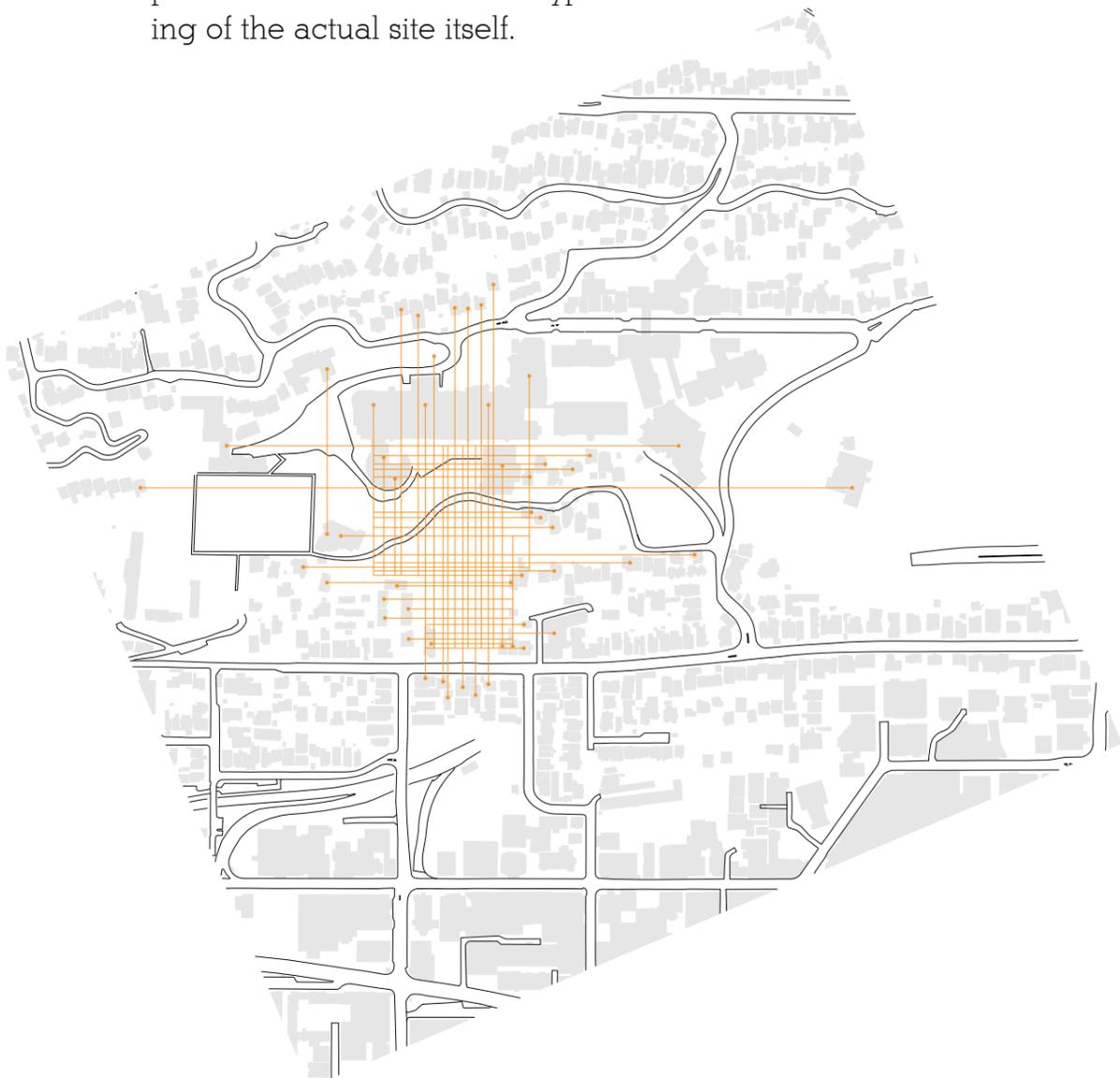
EXISTING PROGRAM
 DIAGRAMMING
 >Sample<

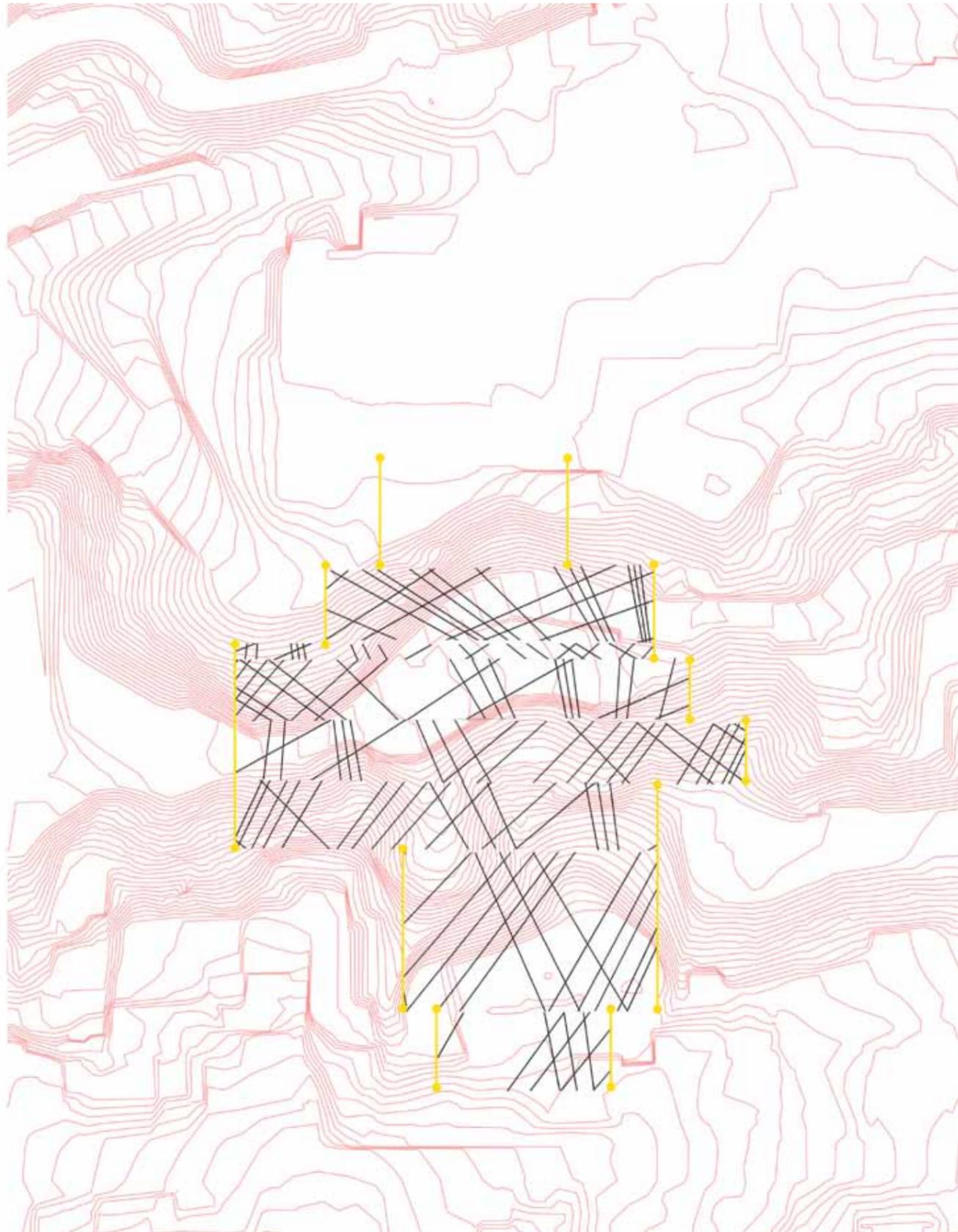




FUTURE DIRECTION OF RESEARCH

The next step towards a final design outcome is to tackle the natural slope and topography of the site. The ideology of the terrace is consulted. This will allow for a less rigid and perfectly perpendicular main axis between city and campus which would lead to a bypassing of the actual site itself.





TERRACES & CABLE CARS

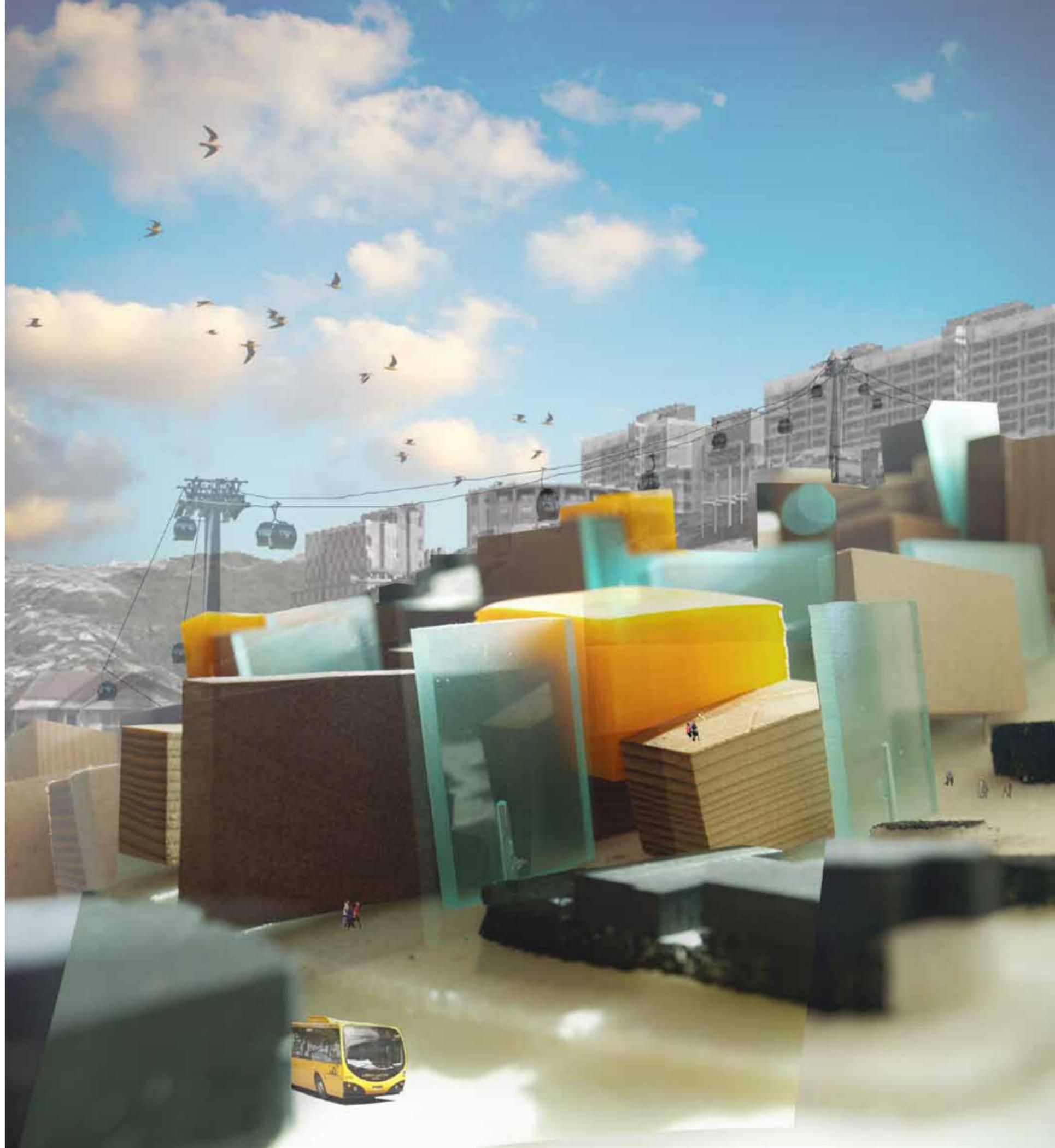
For strong integration with the wider urban grid the primary breakdown and structuring method of the site has been literally extrapolated from the surrounding urban settlement density. This provided a maximum possible site perimeter (yellow). Through geometrical juxtaposition (Central Services Building's staircase and Rankie Brown's exterior staircase) the diagonally transitioning pattern was determined. This was then broken down against the horizontal limitations of the previously established site perimeter. Fantastic opportunities that

arise from terracing oriented along this pattern are:

- Less rigid urban composition of site
- Juxtaposing vertical movement against order of building mass
- Fantastical and playful aspects to the design
- Great potential for desirable inhabitable space

A new landmark within Wellington will be established while reinforcing Victoria University's roots and image.

CONCEPTUAL
OUTCOME



REFERENCES

ArchDaily (27 Jul 2011) "VitraHaus / Herzog & de Meuron" Available from: <<http://www.archdaily.com/50533/vitrahaus-herzog-de-meuron/>> (accessed 22 May 2015).

Arnell, P. and Bickford, T. (1984) James Stirling, buildings and projects, ed., Architectural Press, London.

Barrie, A. (1999) Code, ed., Artspace, Auckland, N.Z.

Blogs, J. (25 February 2012) Herman Hertzberger - 2012 RIBA Gold Metal Winner. Available from: <<https://wharferj.wordpress.com/2012/02/25/herman-hertzberger-2012-riba-gold-medal-winner/>> (accessed).

Chatterjee, A. (2014) Surface Potentialities, in A. Chatterjee (ed.), Surface and Deep Histories, Cambridge Scholars Publishing, Newcastle upon Tyne, 1-7.

Churchill College (13 August 1959), Architectural Journal, 129(3375), 27-31.

Dober, R. (1992) Campus design, ed., J. Wiley, New York, N.Y.

Foucault, M. (1986) Of Other Spaces, Diacritics, 16(No. 1 Spring), 22-27.

Hensel, M. (2013) Performance Oriented Architecture: Rethinking Architectural Design and the Built Environment, AD Primers, 1st ed., Wiley, Chichester.

Hight, C. (2009) En route: Towards a Discourse

on Heterogeneous space in architecture, in M. Hensel (ed.), Space Reader: Heterogeneous space in architecture, Wiley, Chichester, U.K., 4-24.

Kenney, D., Dumont, R. and Kenney, G. (2005) Mission and place: strengthening learning and community through campus design, ed., Praeger Publishers, Westport, Conn.

Lawrence, A. and Stirling, J. (2012) James Stirling: Revisionary Modernist, ed., Yale University Press, New Haven.

Leatherbarrow, D. (2009) Architecture Oriented Otherwise, 1st ed., Princeton Architectural Press, New York.

Leatherbarrow, D. and Mostafavi, M. (2002) Surface Architecture, ed., MIT Press, Cambridge, Mass.

Rowe, C. and Slutzky, R. (1997) Transparency, Birkhauser Verlag, Basel, Boston.

Sharif, M. (2003) Surface Architecture, arq reviews, 7(1), 88-91.

Stirling, J. (1975) James Stirling: buildings & projects, 1950 - 1974, ed., Thames & Hudson, London.

VUW (2015) Vision, mission and values. Available from: <<http://www.victoria.ac.nz/about/governance/strategic-plan/vision,-mission-and-purpose>> (accessed 20 March 2015).