

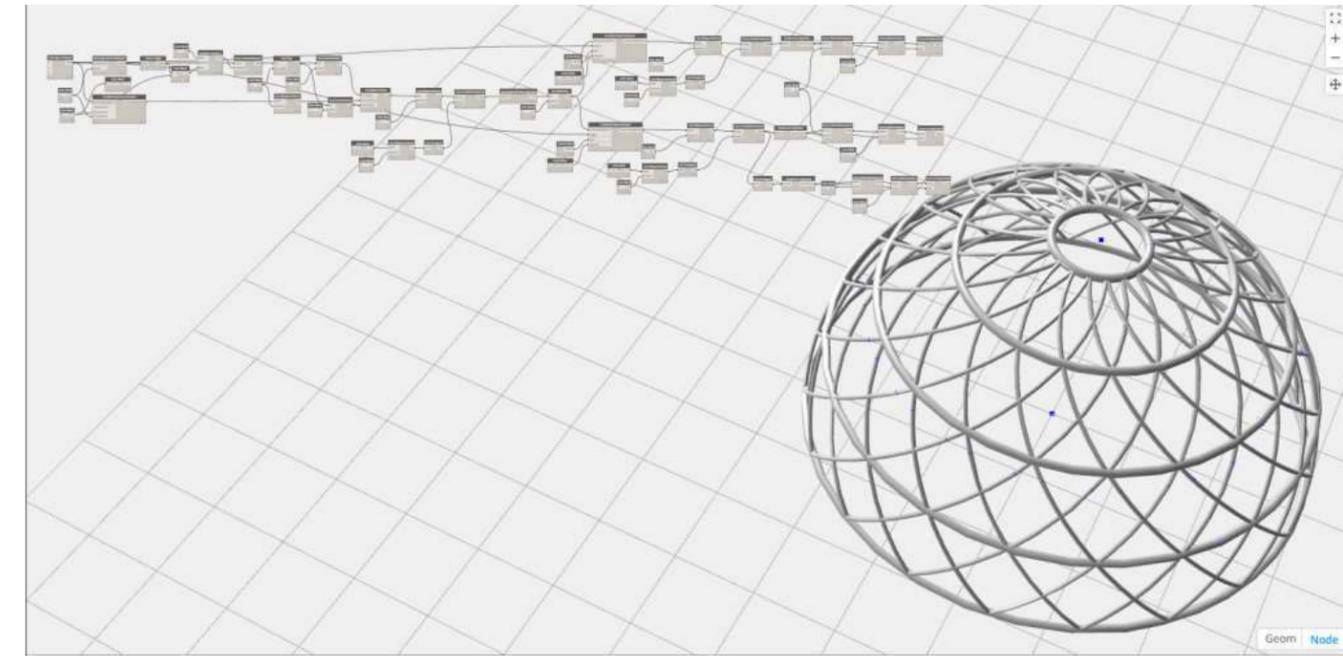
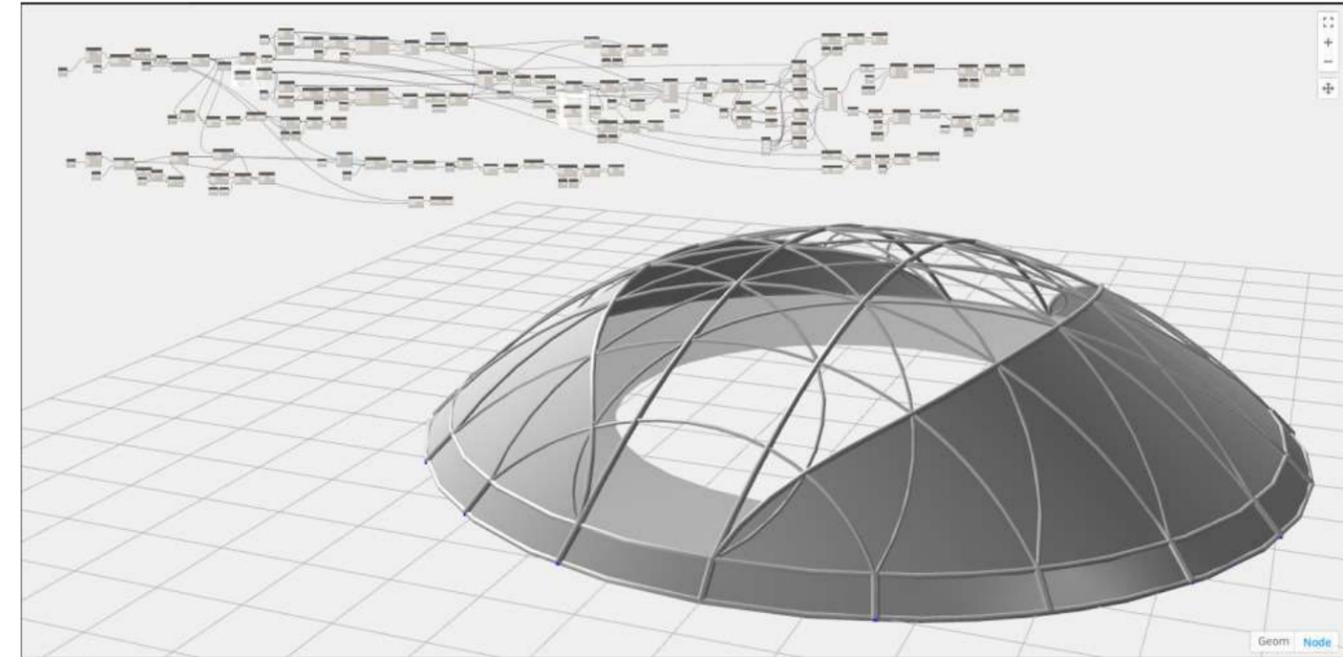
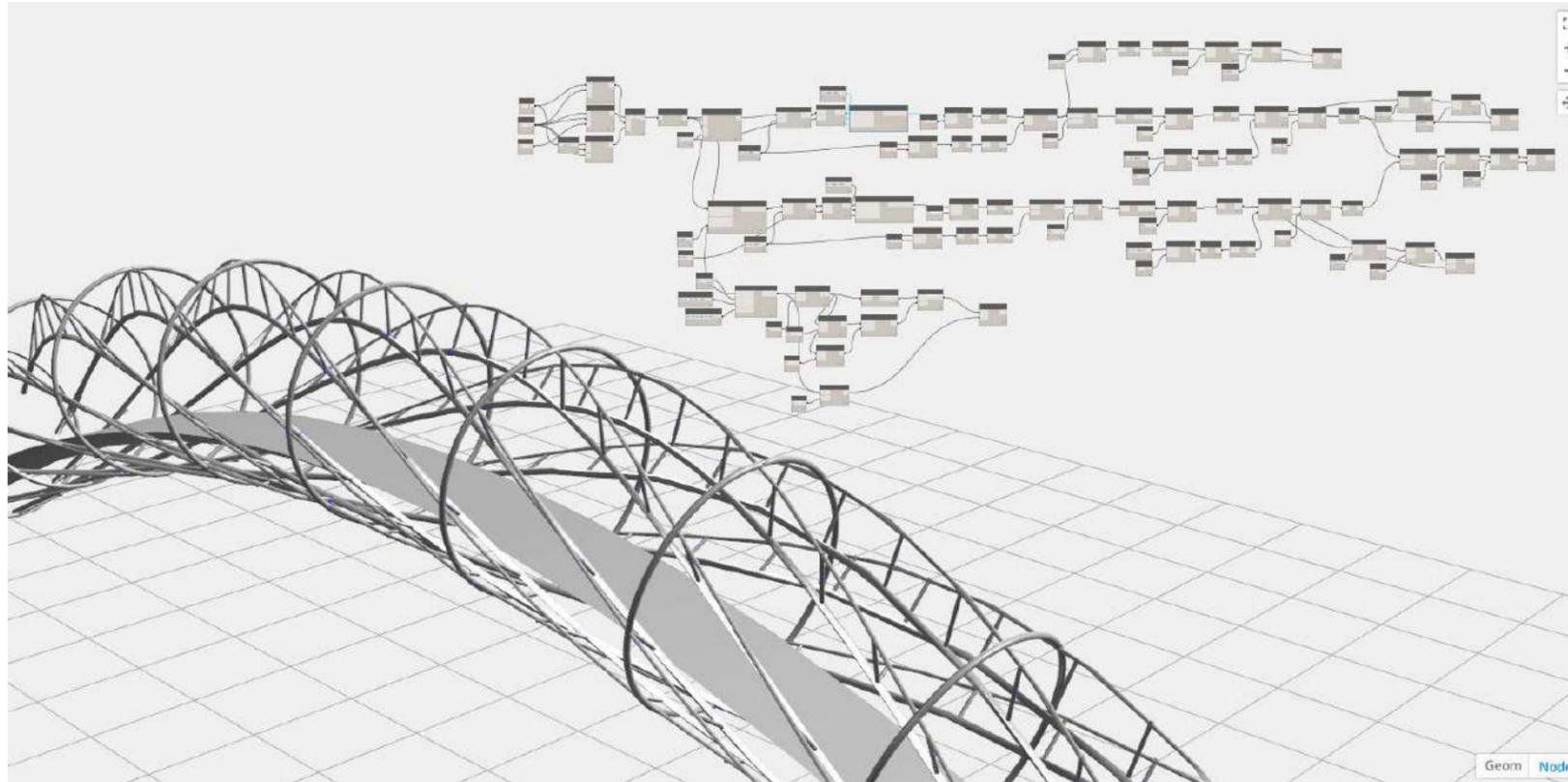
TECHNICAL EXPERIMENTATIONS

REINIER TINAPAY

ITERATIVE DESIGN USING VISUAL CODING

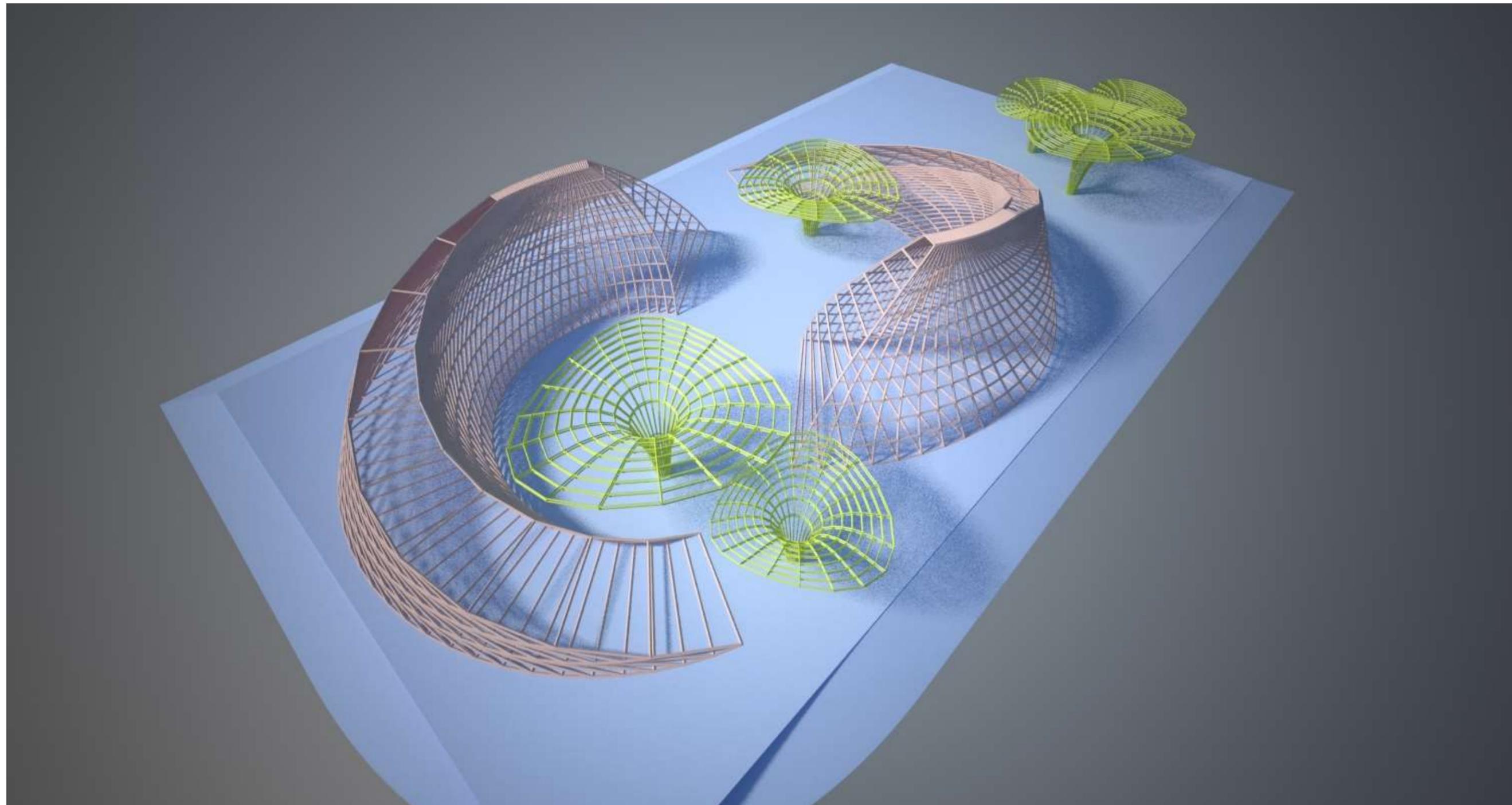
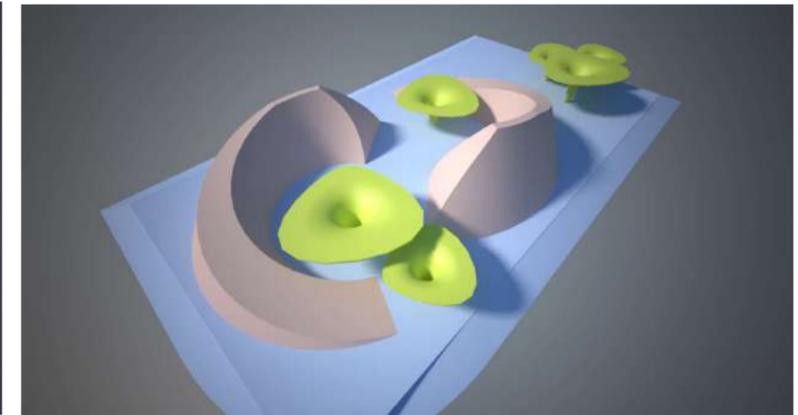
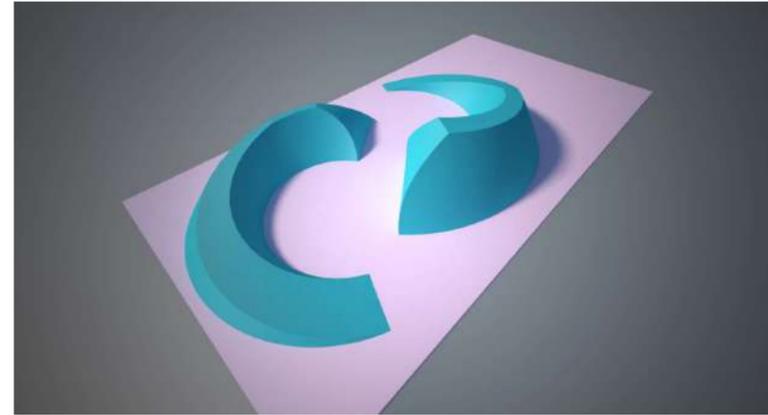
Revit and other BIM softwares are at the forefront of Parametric modelling. And with the advent of iterative modelling made possible by code block based systems such as Dynamo, it has become easier for architects and designers to experiment with shapes and designs.

Showcased here are some of my experimentations with iterative design using visual coding software Dynamo.

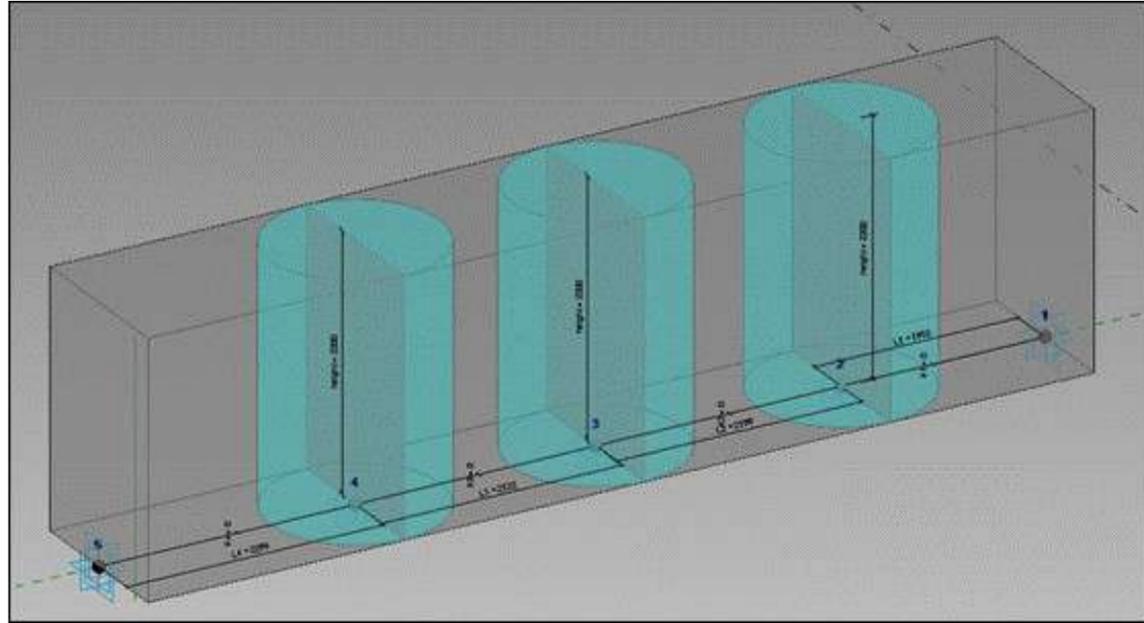


CONCEPTUAL DESIGN PISCES PAVILION

A quick design exercise done in 3d max to study forms derived from Influences in nature and art.

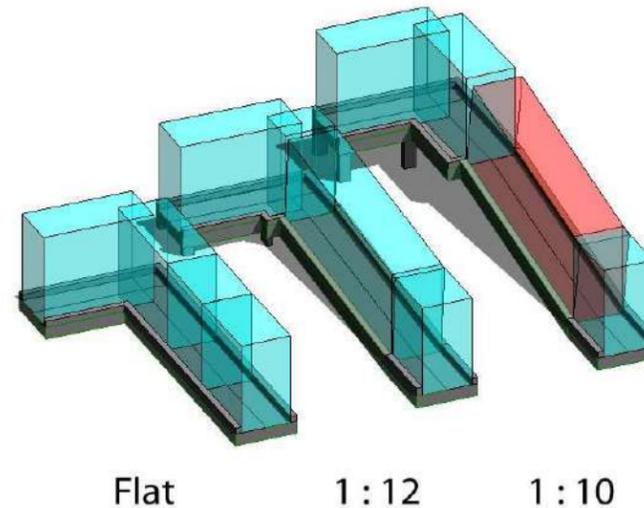
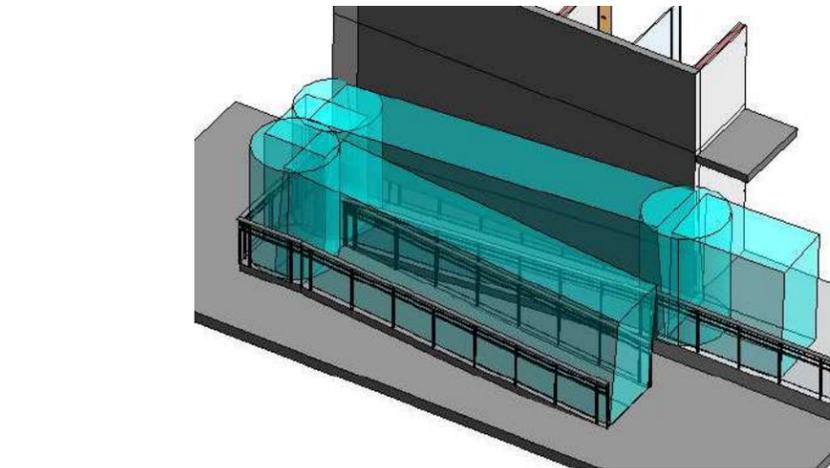


PARAMETRIC ADAPTIVE COMPONENT IN REVIT

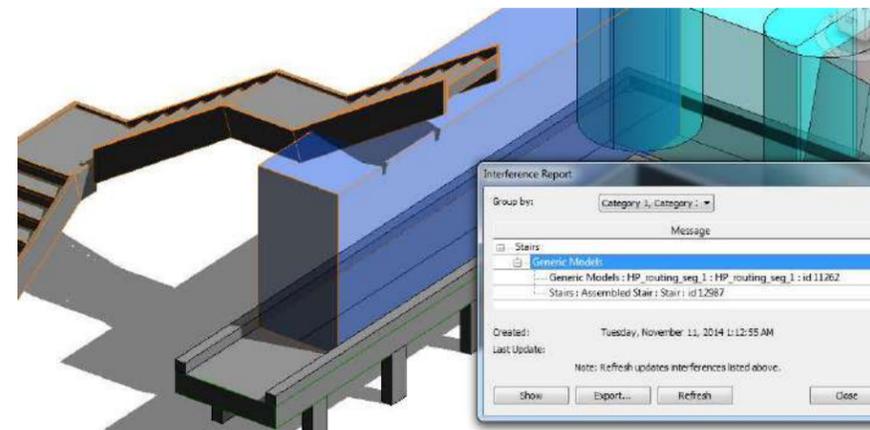


This study proposes standardizing the modelling procedure for BCA handicap routing using easy to adapt tools that can be used inside the 3d environment. It attempts to harness in-built tools of Revit to create a parametric family capable of automatically detecting and high-lighting non-compliant ramp gradient (maximum 1:12) as well as creating a schedule of lengths and gradients. This family can be integrated into submission templates or prepared as an add-on pack.

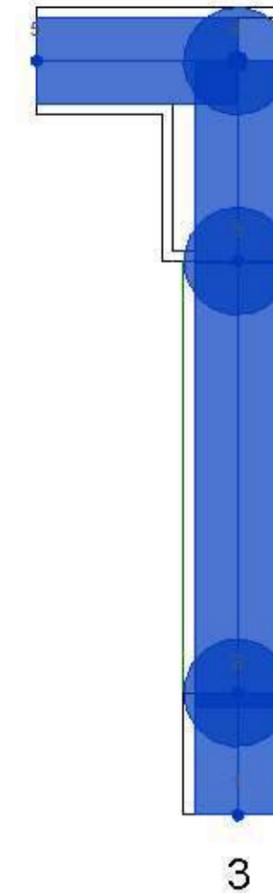
Using this adaptive component family, the study aims to create a routing plan for the project model to verify that it is compliant to authority requirements for Accessibility. The 'routing.rfa' will be modelled as a 3d element therefore it can be examined on all views. It will highlight by colour coding compliant versus non-compliant segments of the route (figure 1 and 2). And ultimately, the information gathered from the family will be prepared in such a way that it can automatically be scheduled for preparation of a submission drawing. Additionally, this routing can also be used for interference checks (figure 3) to identify any non-compliance in headroom requirements.



The Figure shows how the routing would show color coding when tested on different configurations of ramp gradients.



Using 'router.rfa' for headroom clearance using interference check and clash detection.



Properties	
HP_routing_8	
Generic Models (1) Edit Type	
Materials and Fini...	
Hand_Fin	HANDICAPPED
Dimensions	
width	1200.0
height	2200.0
half width	600.0
S4	0.000000
S3	0.000000
S2	0.164629
S1	0.000000
L4	2794.3
L3	2764.9
L2	6074.3
L1	1689.3
H4	0.0
H3	0.0
H2	1000.0
H1	0.0
Volume	11.663 m ³
Identity Data	
max slope	0.083333
Path No	3
Comments	
Mark	
Phasing	
Phase Created	New Conter...
Properties help	
Apply	

The routing.rfa was designed to be flexible and customizable. It can be reconfigured to suit any clearance and gradient requirements. Height, width and node visibility can be configured at the properties panel. The numeric values of these attributes are shared parameters therefore it can be used in schedules. Its dimensional attributes can be modified to match various authority or presentation requirements. It can be 2.2 meters tall for head room clearance. It can also be thin and flat for presentation purposes.

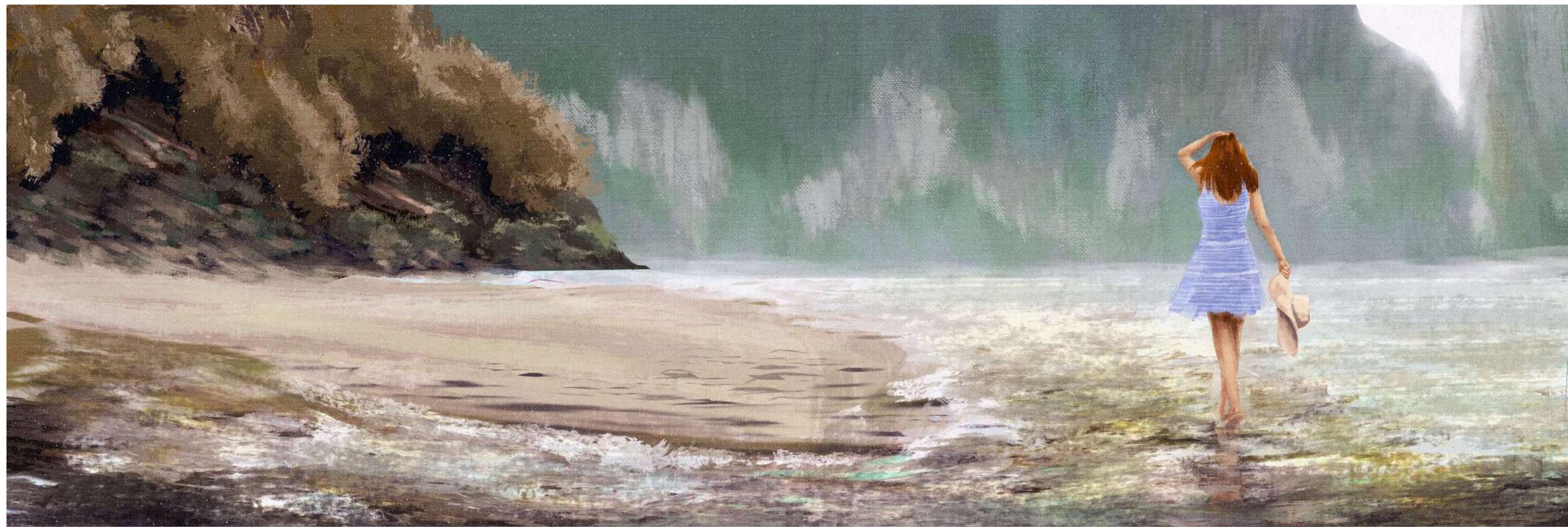
ARTISTIC EXERCISES
REINIER TINAPAY

ADOBE PHOTOSHOP



left:
Komorebi - Sunny day at a park in Tokyo, Japan
Photoshop

below:
Beach day at Krabi, Thailand
Photoshop



PROCREATE

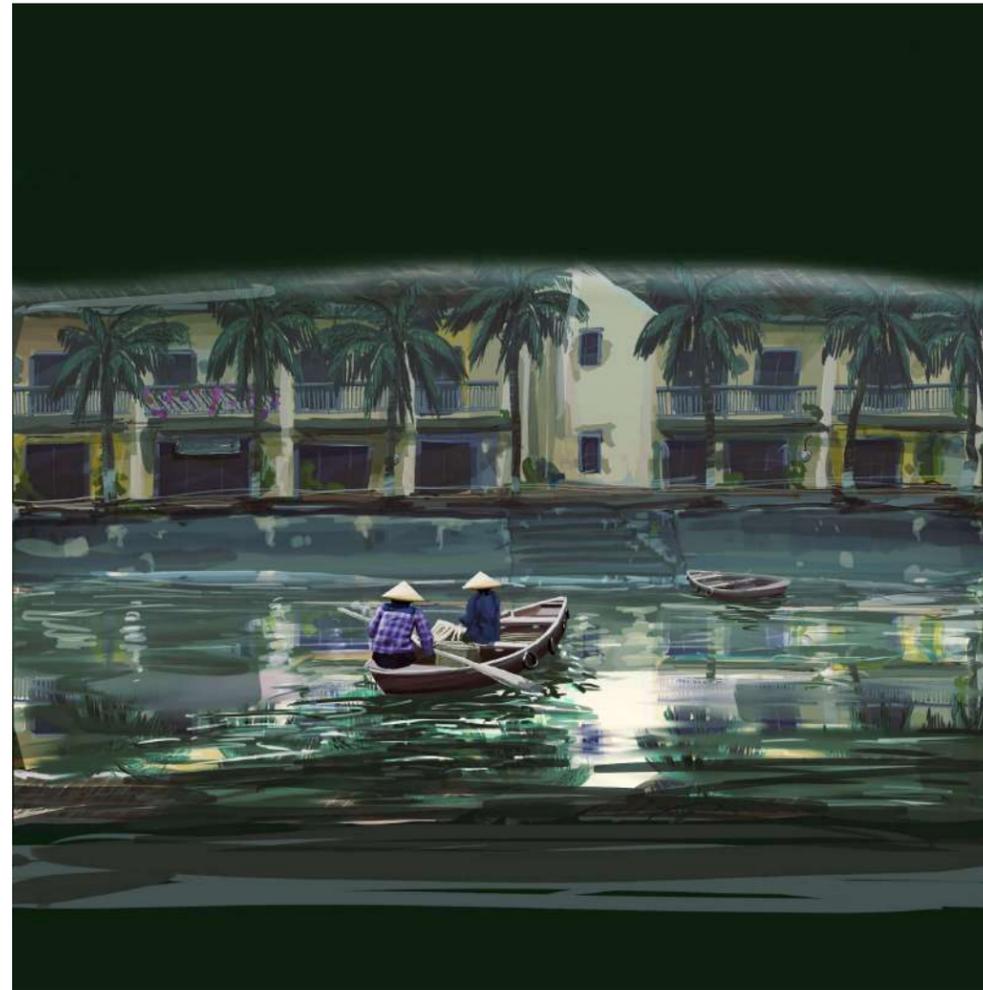


above:
Bridge of Lions, St. Augustine Florida
Procreate

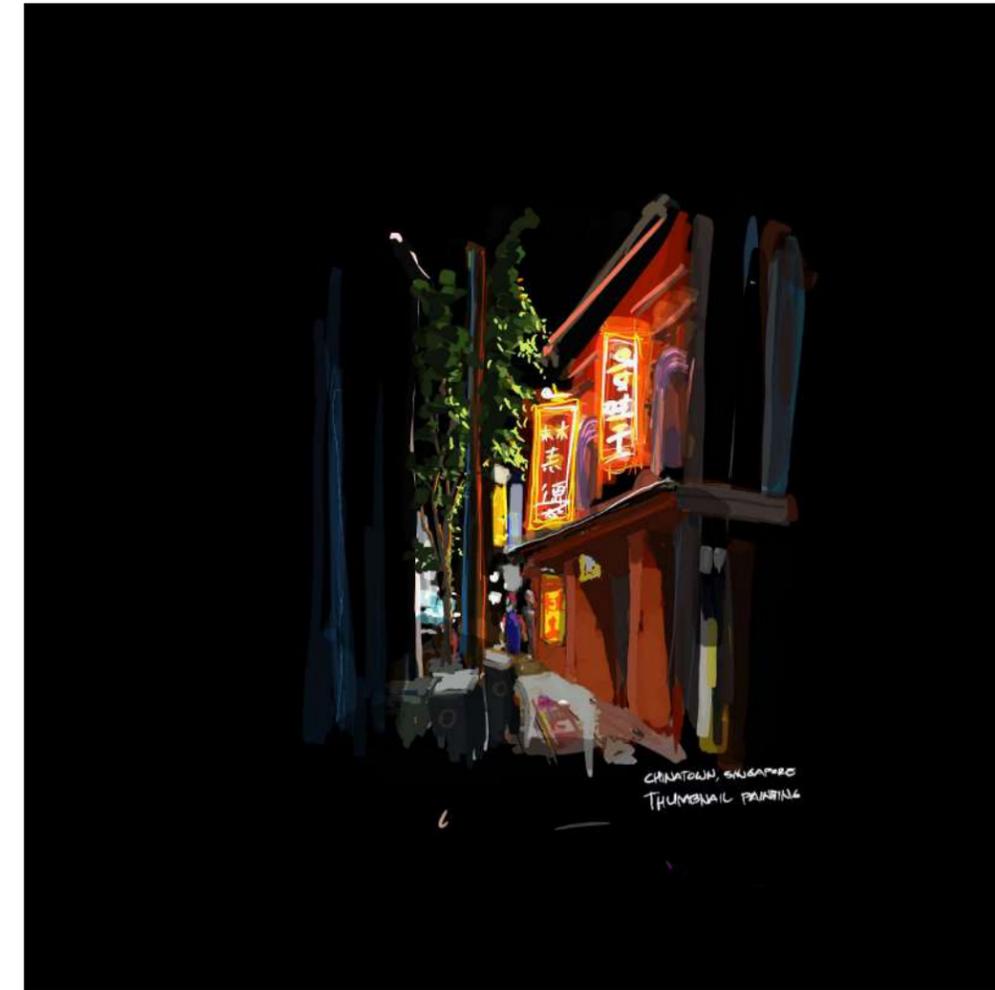
left:
Jacksonville Beach, Jacksonville Florida
Procreate



Sunset in Phuket, Thailand
Procreate



Boats Hoi An, Vietnam
Procreate



Night Scene Chinatown, Singapore
Procreate

PROCREATE



left:
Sci-fi Scenery - "Patrolling Scout"
Procreate

below:
Sci-fi Scenery - "Evangelion"
Procreate



above:
Sci-fi Scenery - "Permafrost"
Procreate



3D STUDIO MAX



above:
Miniworld - Cabin
3d Max

below:
Kaneda's Bike - Akira
3d Max

