

# TEKNE LAB

COMPANY PROFILE

DATE : 06.2022



# TEKNE LAB

**TEKNE** : *from\_Techne\_Tékhnē\_téxvnē*

In philosophy; Tekne refers to art, craft, making and doing.

Tekne is the knowledge of principles; knowledge in the widest sense.

The root Greek word for technology

Tekne Lab specialises in the development of sophisticated;  
computationally driven solutions for complex design projects.

For architects and engineers; fabricators and contractors; to all  
designers and artists; Tekne Lab can help realise even the most  
complex of design challenges.

# OUR MISSION

Computational design for everyone...

Sophisticated parametric and computational workflows are widely used at the forefront of modern architectural design. Large, international design studios often develop inhouse teams of varying specialisms to push the boundaries of innovation and novelty in architecture. Whilst these teams are critical to the development of complex architecture, for smaller studios however, these teams are difficult to develop inhouse with generally more limited time and resources to apply.

Tekne Lab's mission is to bring innovative, parametric and computational workflows / analysis to all types of designers. With extensive experience of working with a wide variety of studios across the globe; from architects and engineers; fabricators and contractors; to all types of designers and artists; Tekne Lab offers unique services that speak everyone's language whilst creating more efficient and inspiring design processes.

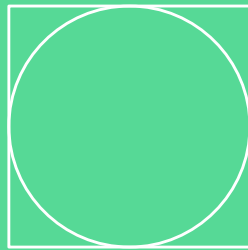


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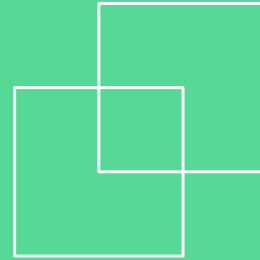
ADVANCED PARAMETRIC DESIGN



GEOMETRY OPTIMIZATION



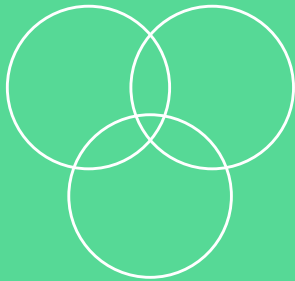
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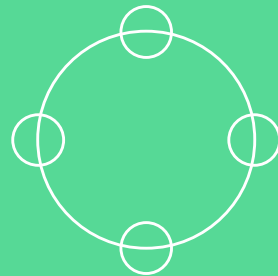
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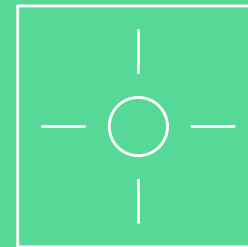
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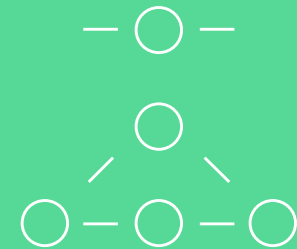
INTEGRATIVE BIM WORKFLOWS



ENVIRONMENTAL ANALYSIS

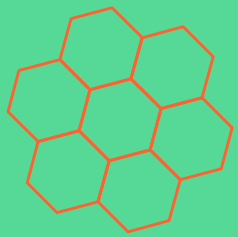


INDIVIDUAL + GROUP TRAINING

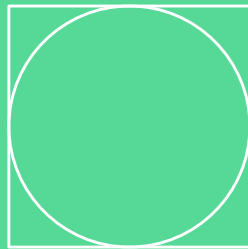


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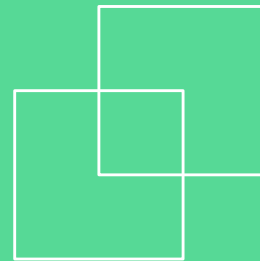
ADVANCED PARAMETRIC DESIGN



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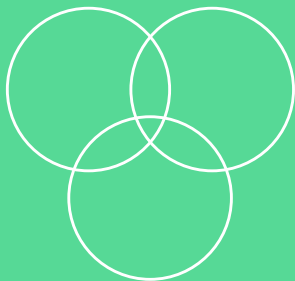
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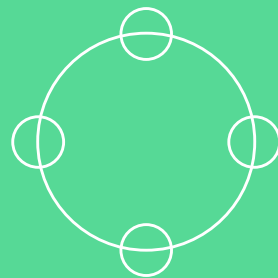
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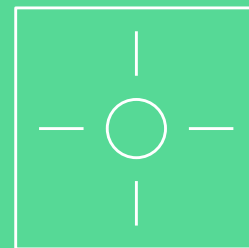
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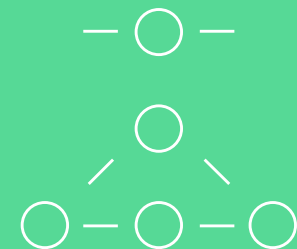
INTEGRATIVE BIM WORKFLOWS



ENVIRONMENTAL ANALYSIS



INDIVIDUAL + GROUP TRAINING





ADVANCED PARAMETRIC DESIGN



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Tekne Lab offers expert parametric services for all types and scales of design projects. By developing robust parametric processes, various design strategies and options can simultaneously be explored throughout all project stages. Change and fluidity therefore become part of the design process allowing for more adaptive and efficient design systems.

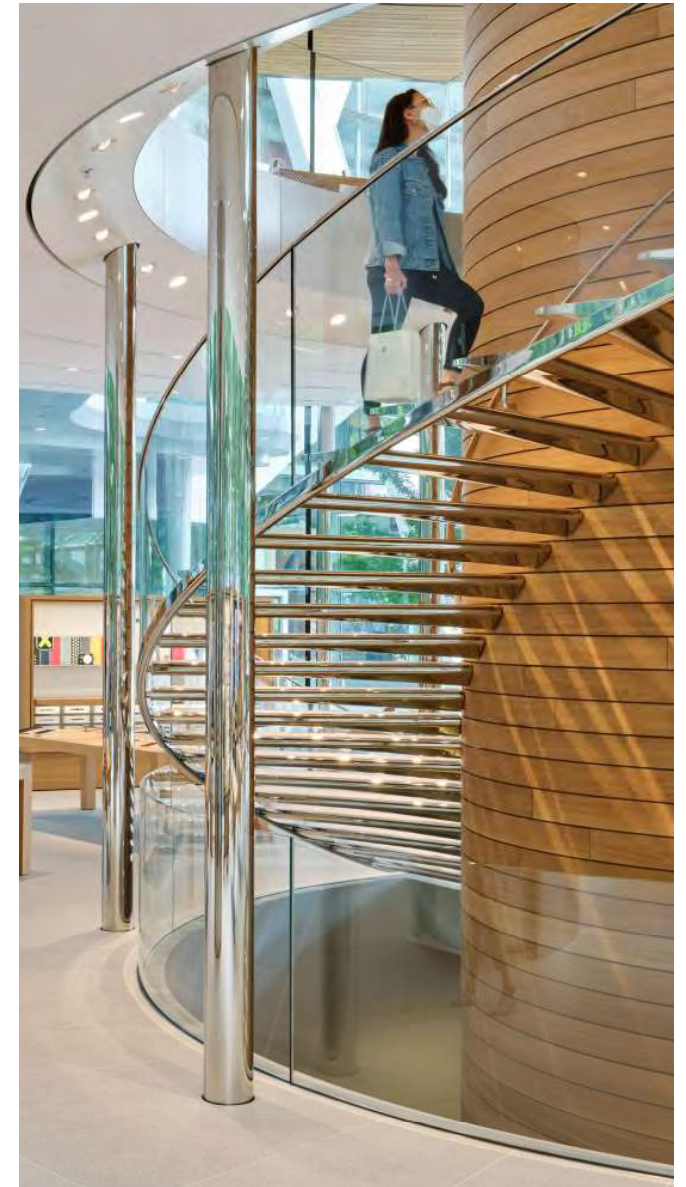
TEKNE LAB



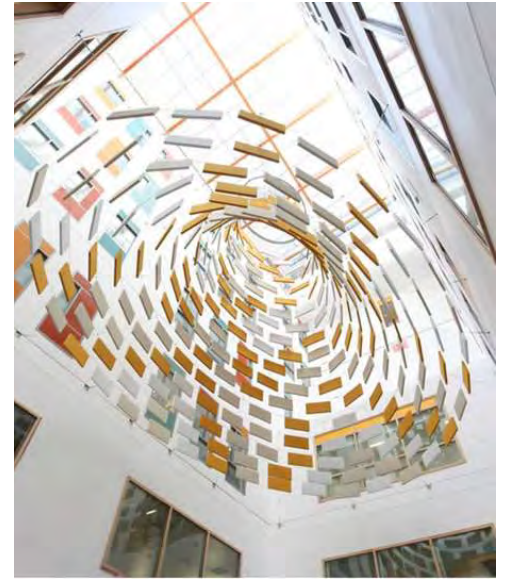
ADVANCED PARAMETRIC DESIGN

APPLE CENTRAL WORLD

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ADVANCED PARAMETRIC DESIGN

DESIGN PORTFOLIO

08/52

TEKNE LAB

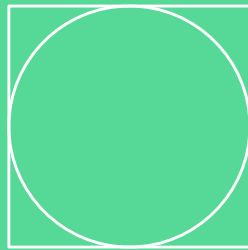


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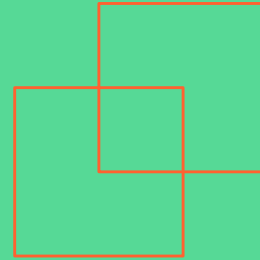
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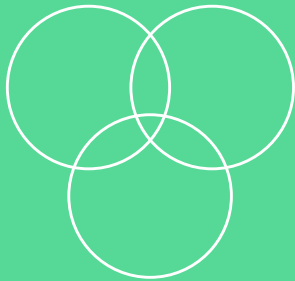
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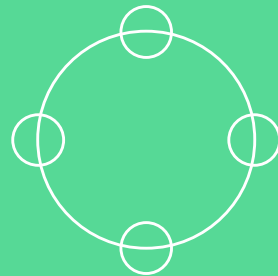
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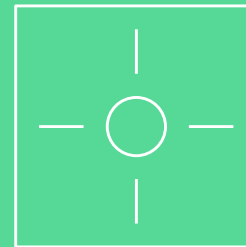
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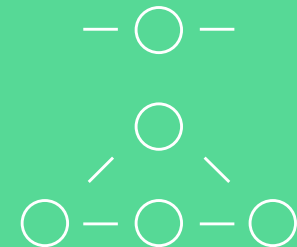
INTEGRATIVE BIM WORKFLOWS



ENVIRONMENTAL ANALYSIS



INDIVIDUAL + GROUP TRAINING





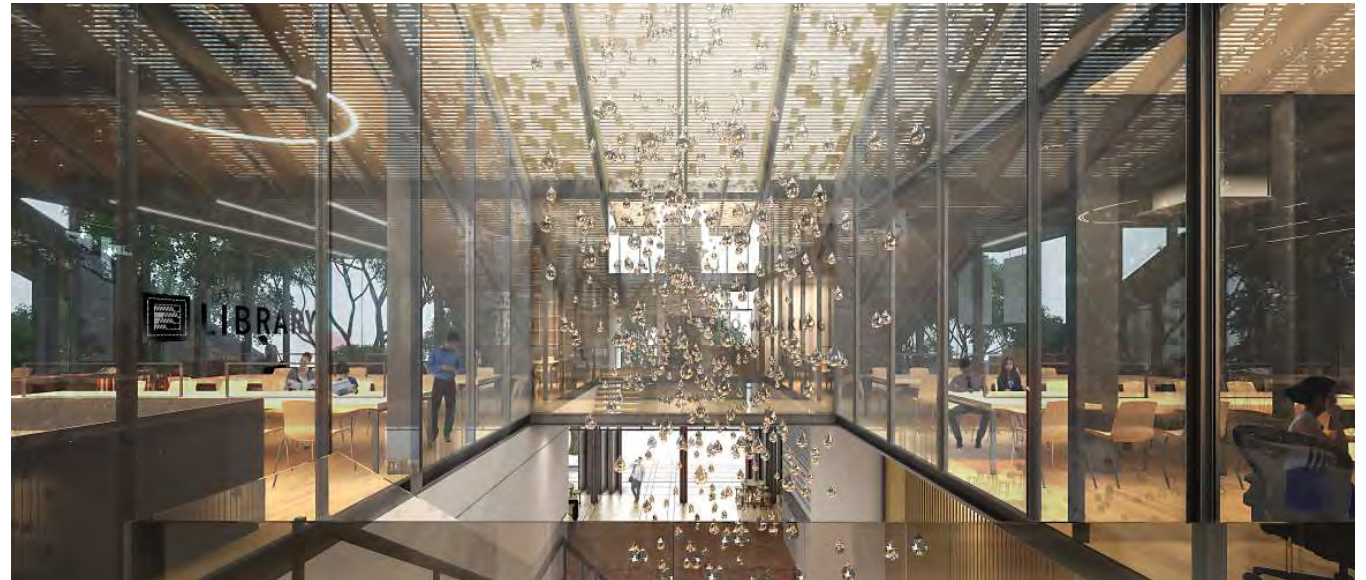
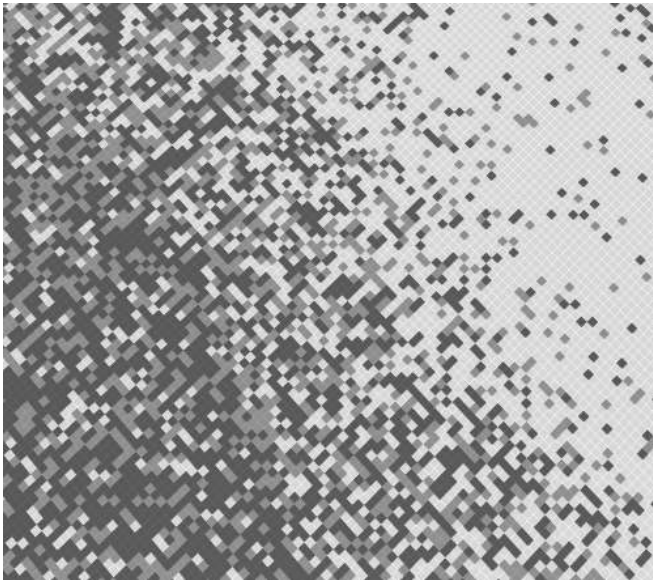
## FACADE DESIGN



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Working closely with many Architects and Designers over the years, Tekne Lab can either develop concept façade designs and systems to fit into any existing project workflow, or can suggest and develop façade proposals from the ground up. Get in touch to discuss your requirements.

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FACADE DESIGN

TCDC COMPETITION

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TEKNE LAB

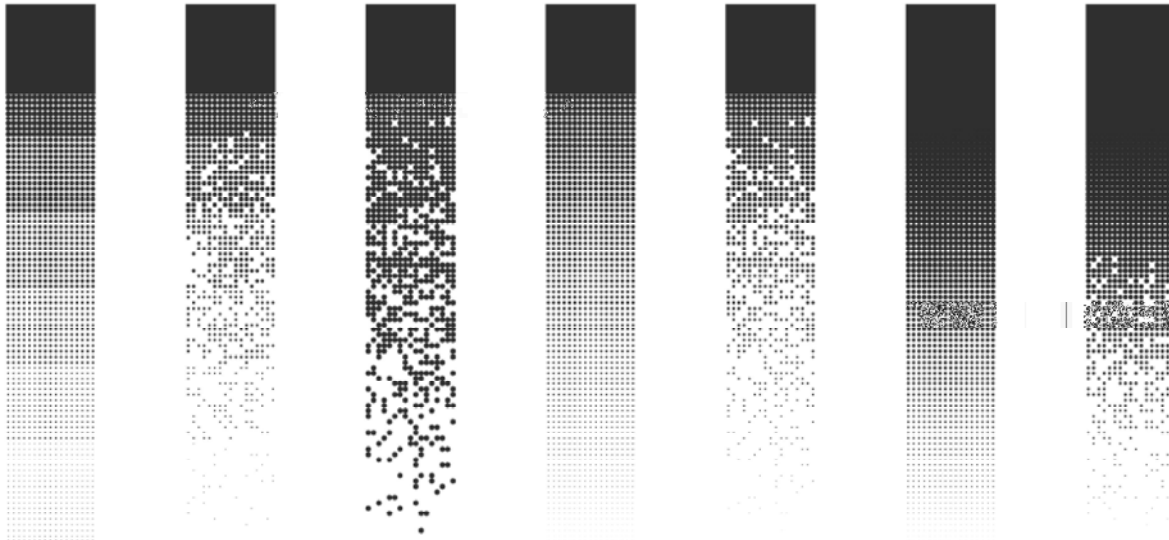


FACADE DESIGN

SPRM TOWER

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TEKNE LAB

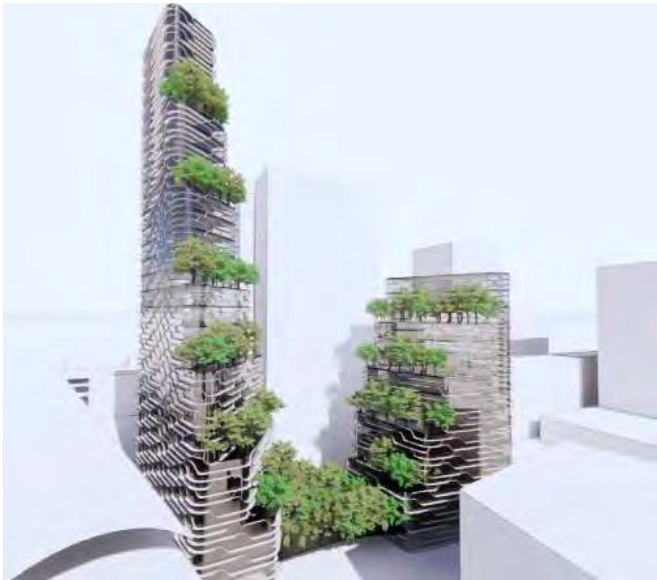
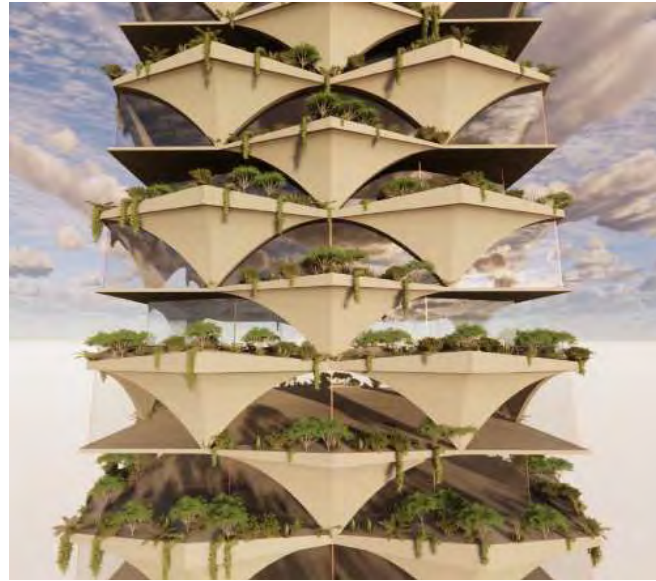
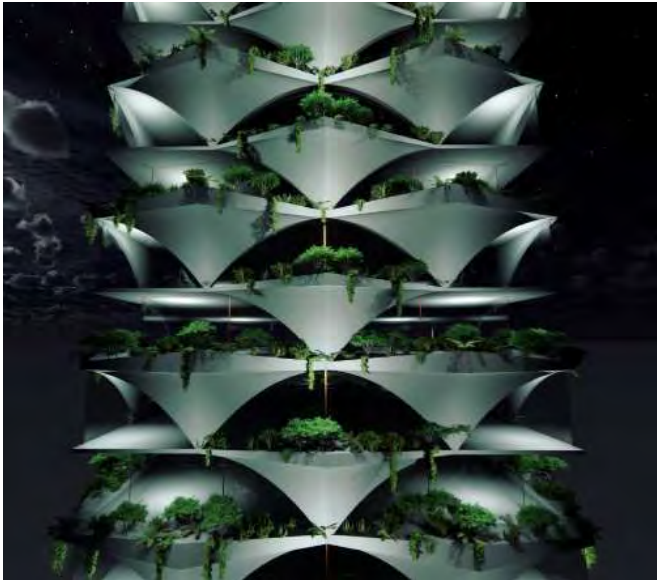


FACADE DESIGN

ONE BANGKOK CULTURE CENTRE

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TEKNE LAB



FACADE DESIGN

DESIGN STUDIES

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TEKNE LAB

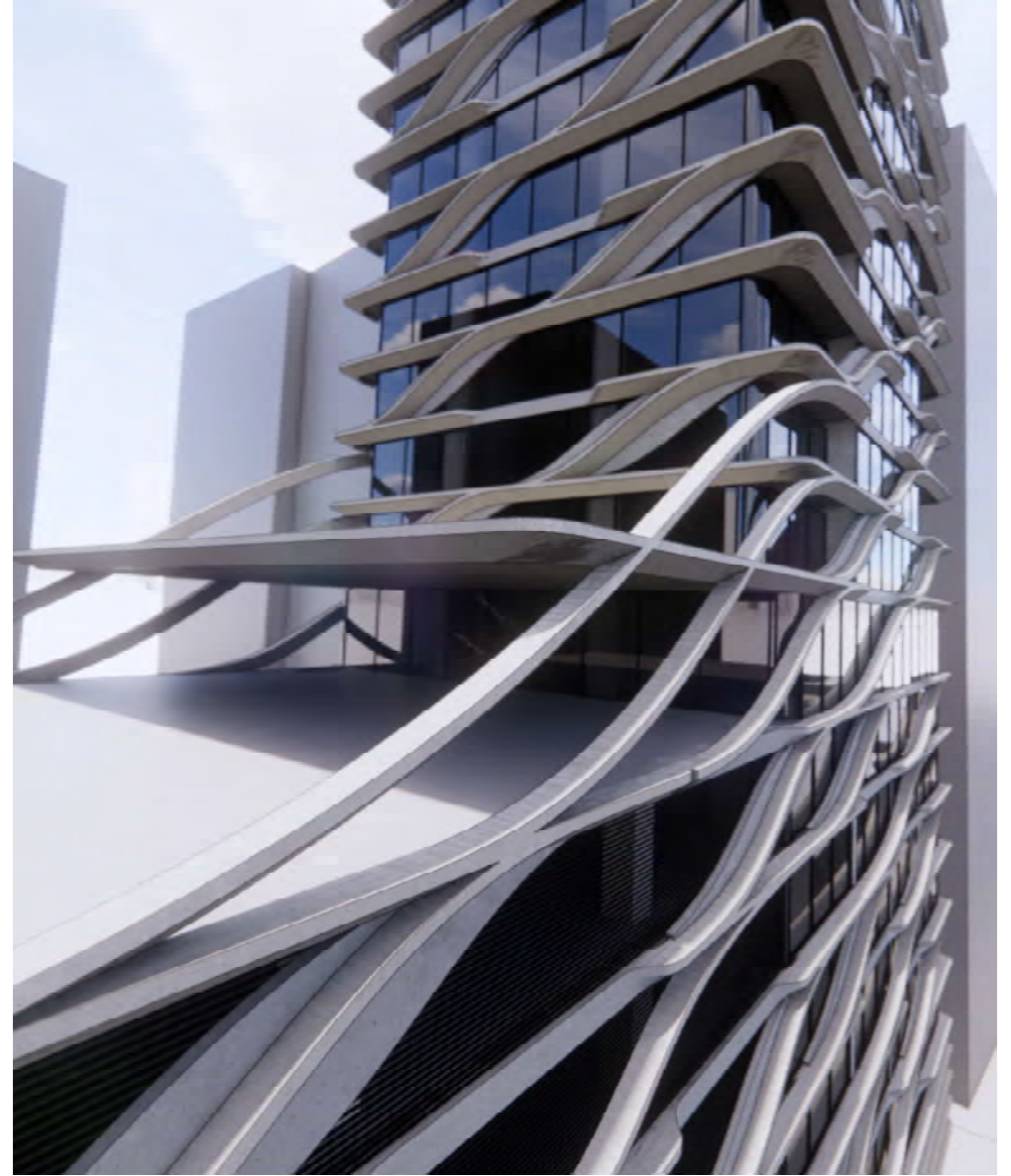


FACADE DESIGN

DESIGN STUDIES

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FACADE DESIGN

DESIGN STUDIES

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TEKNE LAB

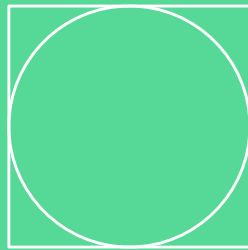


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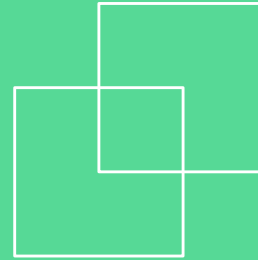
ADVANCED PARAMETRIC DESIGN



GEOMETRY OPTIMIZATION



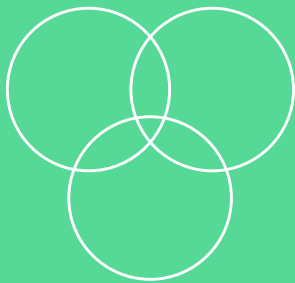
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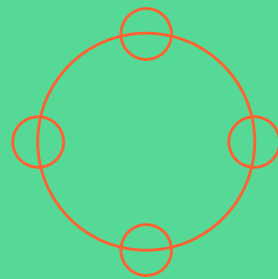
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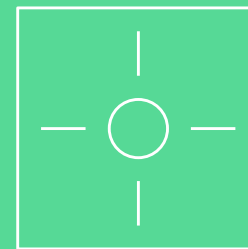
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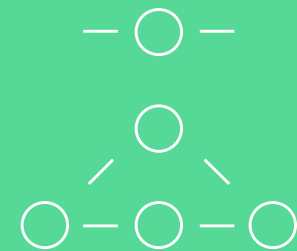
INTEGRATIVE BIM WORKFLOWS

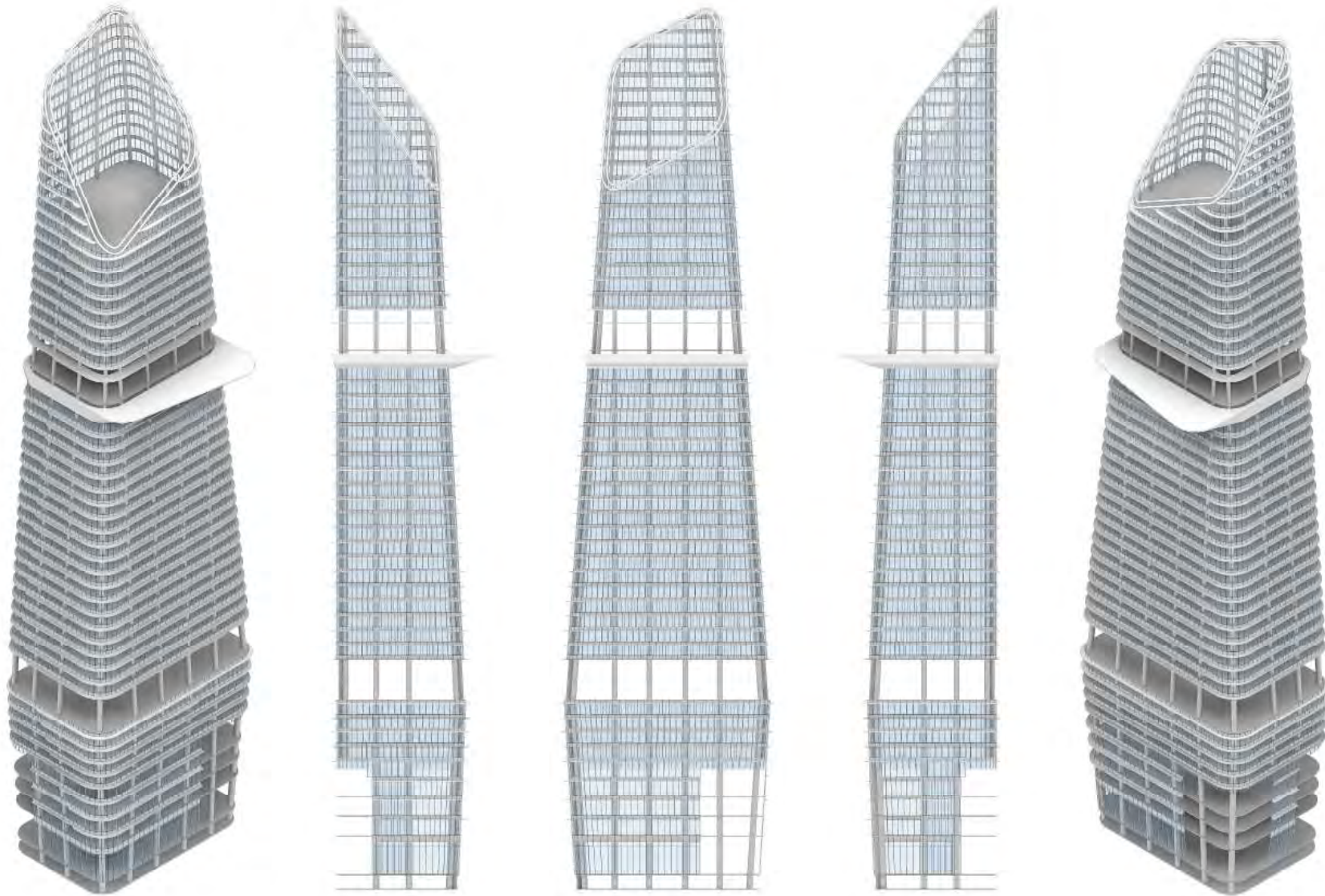


ENVIRONMENTAL ANALYSIS



INDIVIDUAL + GROUP TRAINING

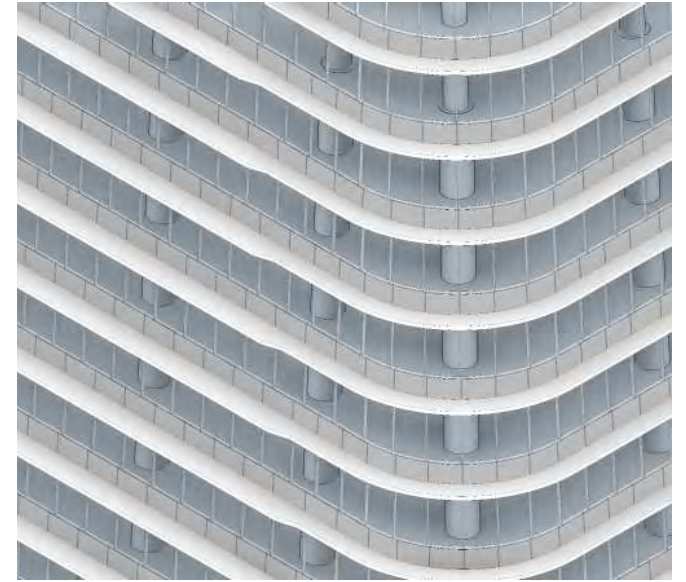
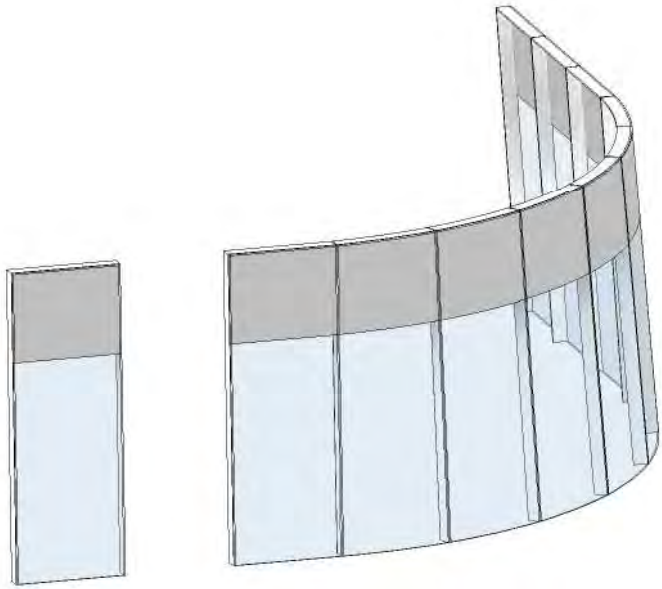




#### INTEGRATIVE BIM WORKFLOWS



As the Architectural industry moves more and more to fully BIM powered workflows, the integration of complex building elements into these workflows becomes critical. With specialist experience seamlessly integrating Rhino and Revit together, Tekne Lab can flawlessly translate complex design information from one to the other.





HEFEI MASTERPLAN

GENERATED FACADES

20/52

TEKNE LAB

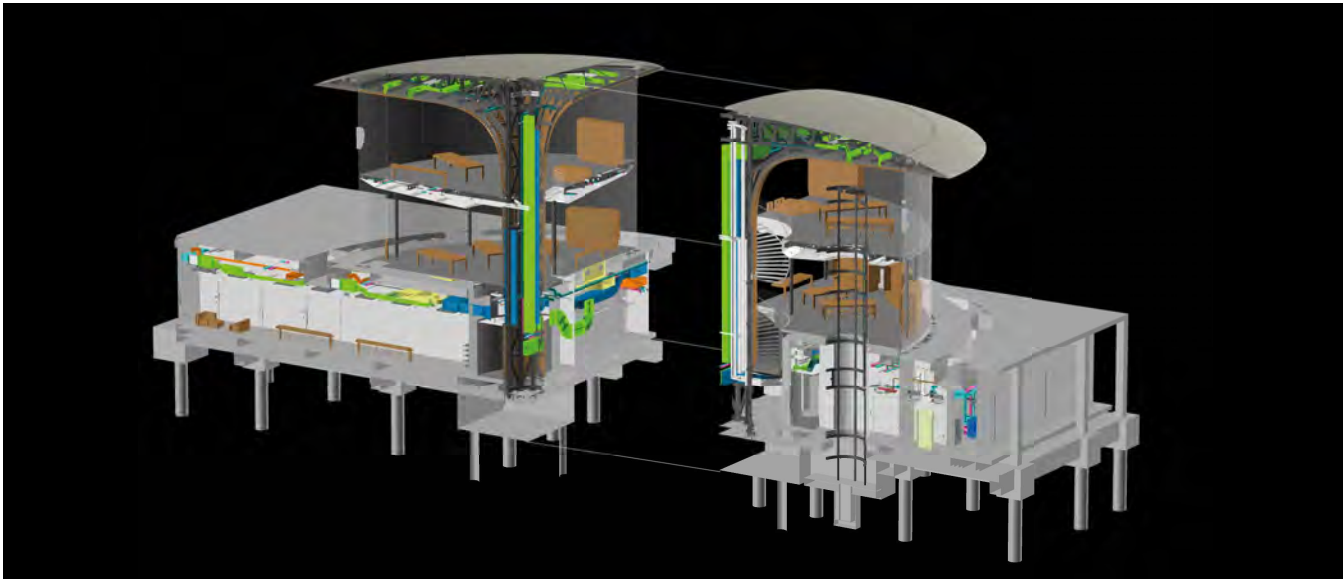
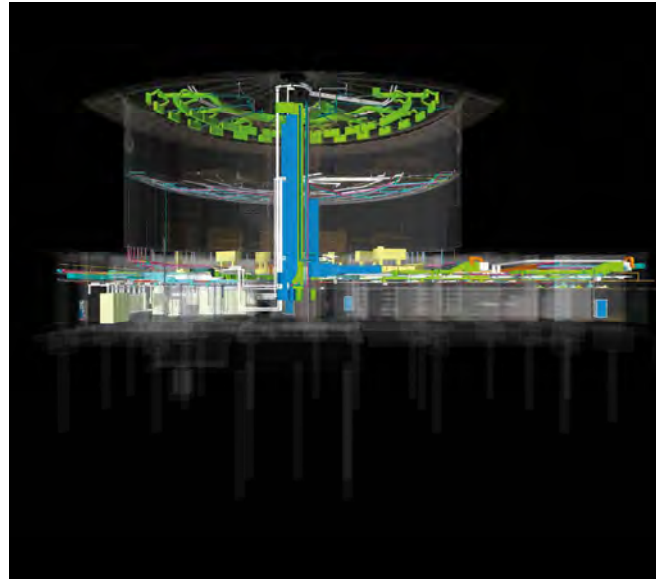
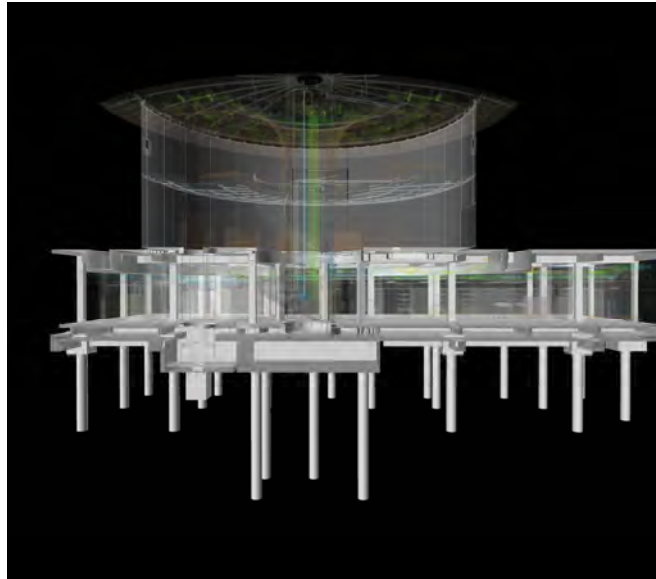
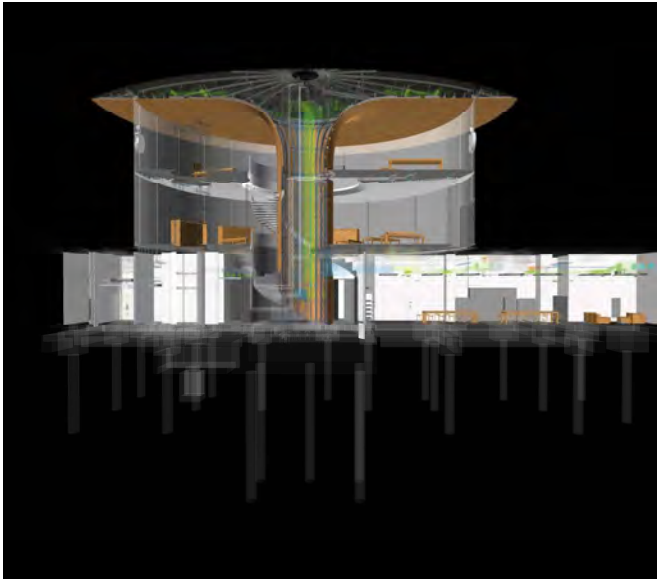


HEFEI MASTERPLAN

GENERATED FACADES

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TEKNE LAB



APPLE CENTRAL WORLD

INTEGRATED BIM COORDINATION

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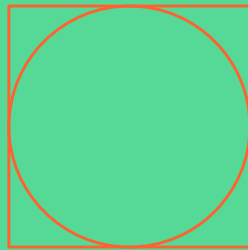
TEKNE LAB

# SERVICES

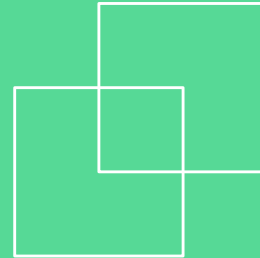
ADVANCED PARAMETRIC DESIGN



GEOMETRY OPTIMIZATION



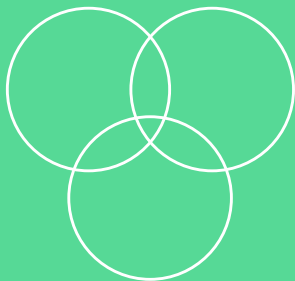
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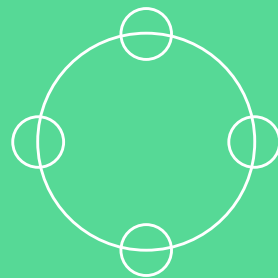
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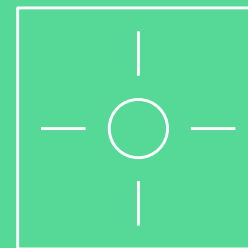
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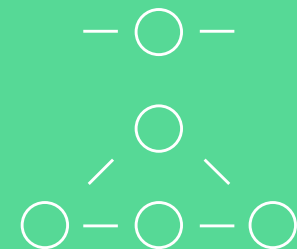
INTEGRATIVE BIM WORKFLOWS

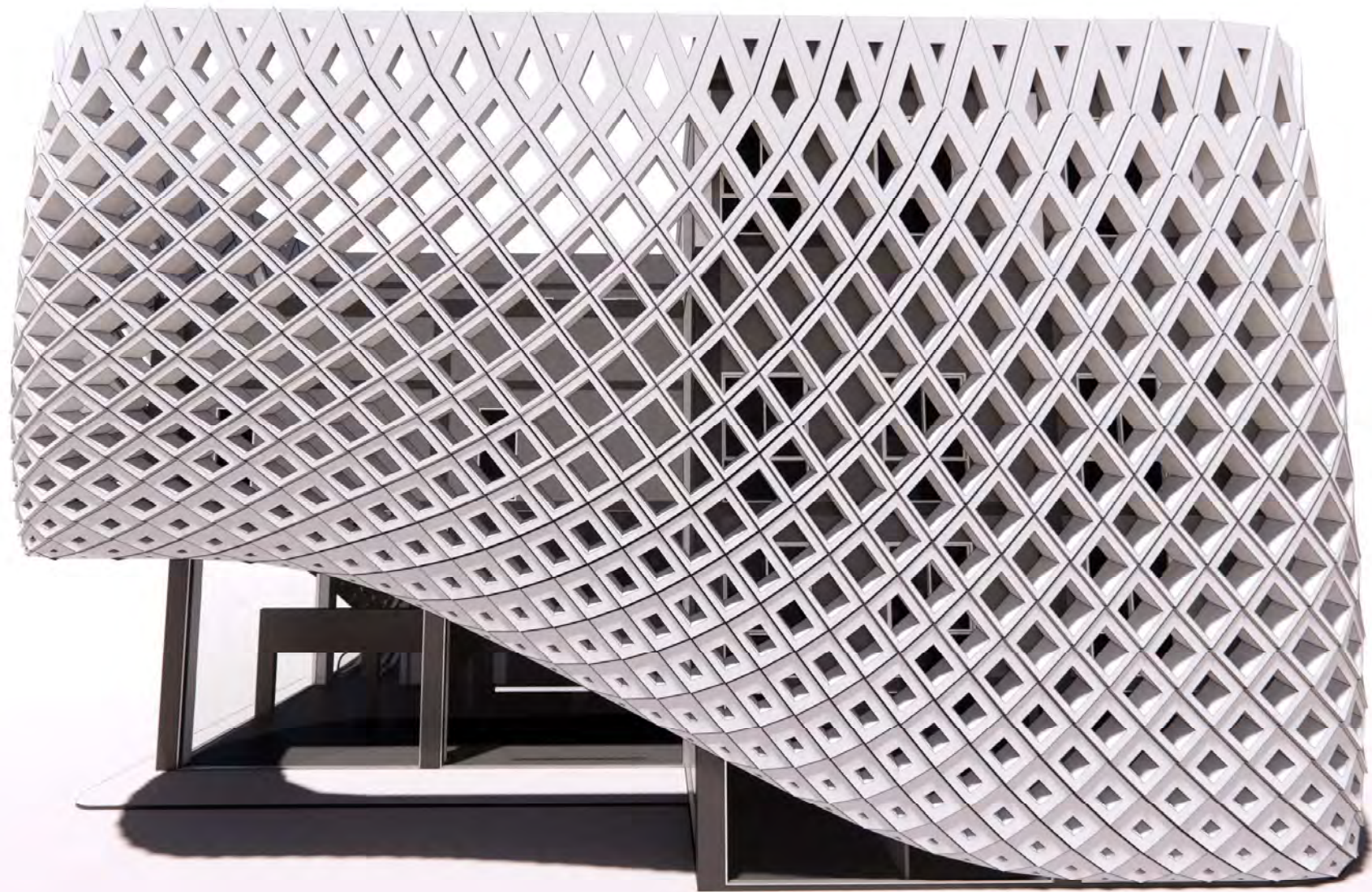


ENVIRONMENTAL ANALYSIS



INDIVIDUAL + GROUP TRAINING



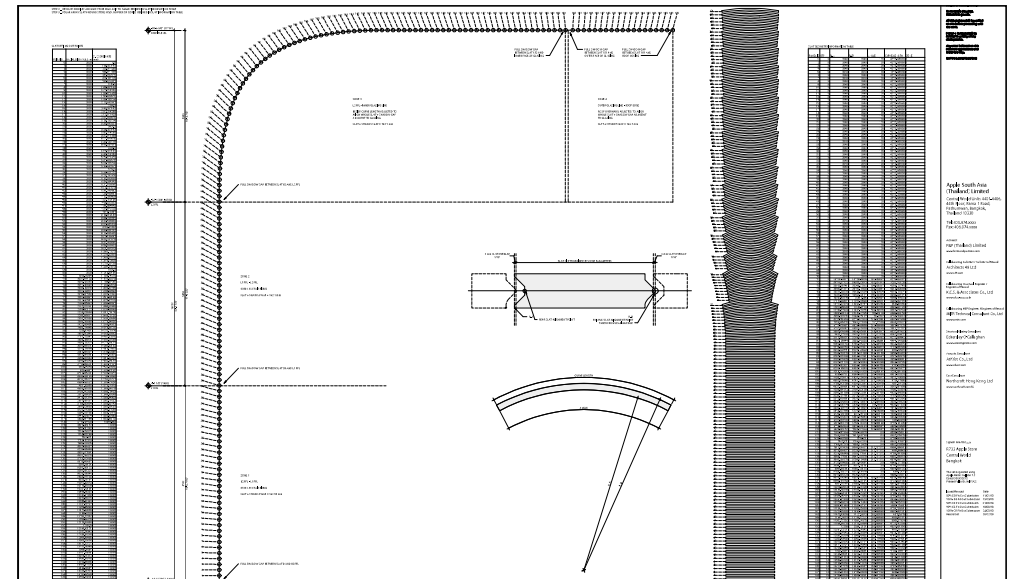
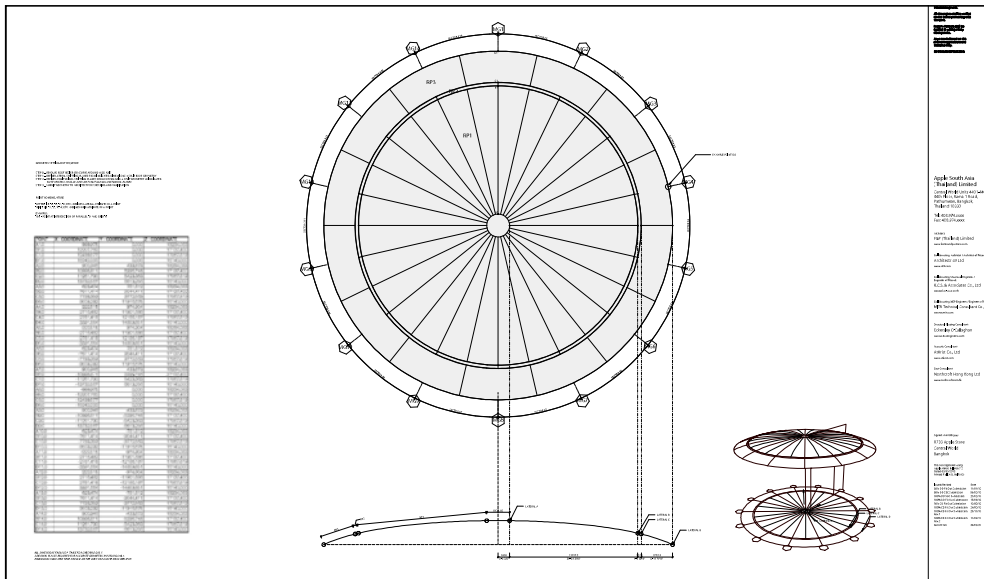
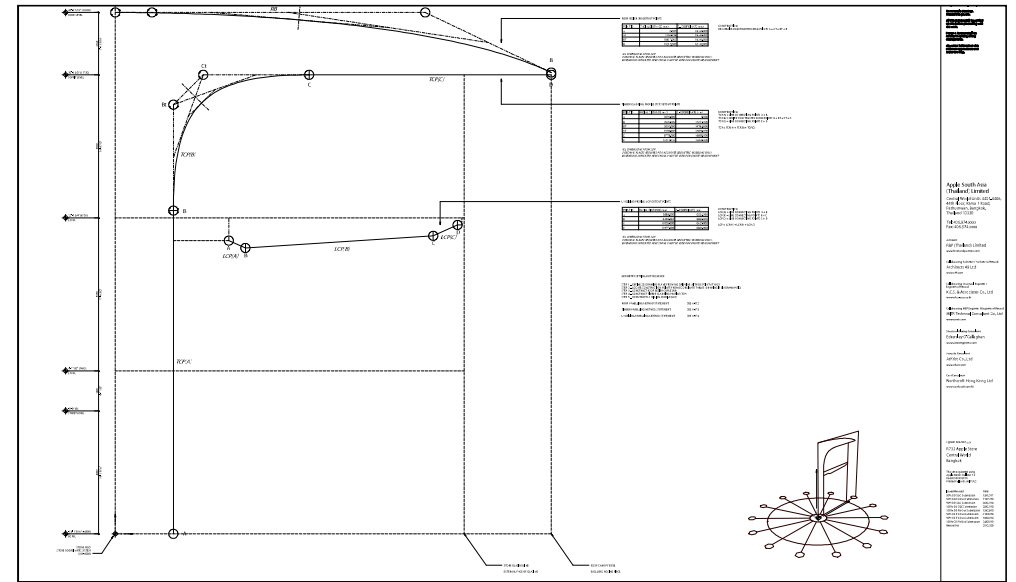
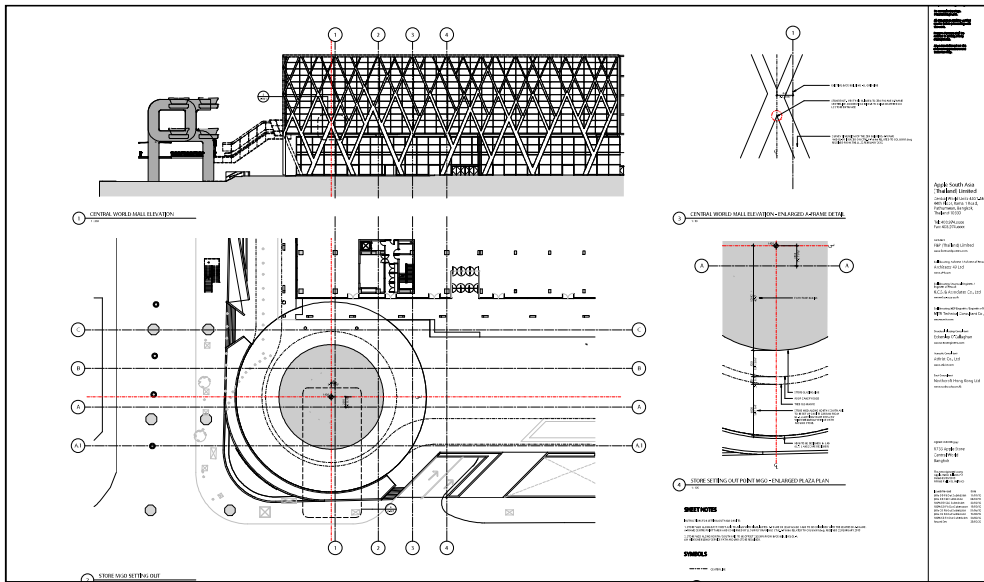


#### GEOMETRY OPTIMIZATION



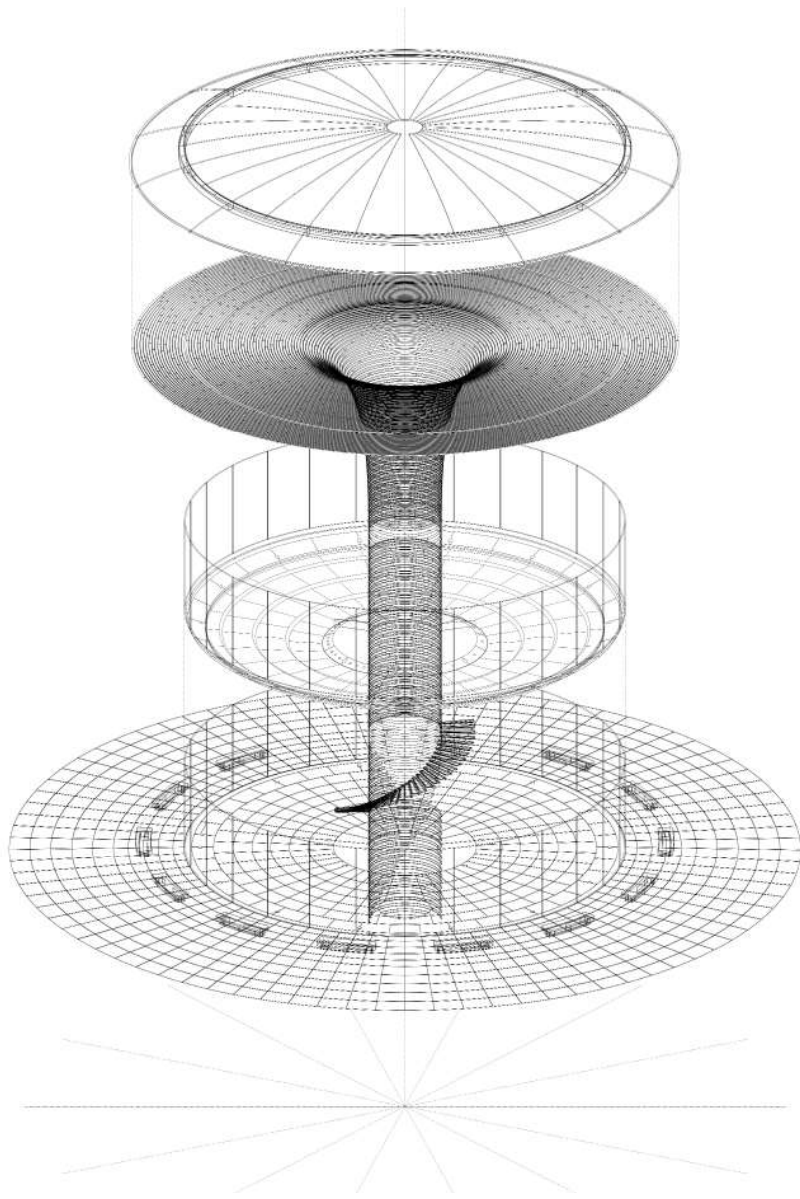
Complex designs and forms don't necessarily have to be complicated to realize. Designing strategies from the ground up for every project, Tekne lab can help rationalize complex designs into logical systems of geometries. This not only reduces the overall complexity of a project, but can significantly reduce fabrication costs and allow for design proposals that were previously not achievable.





APPLE CENTRAL WORLD

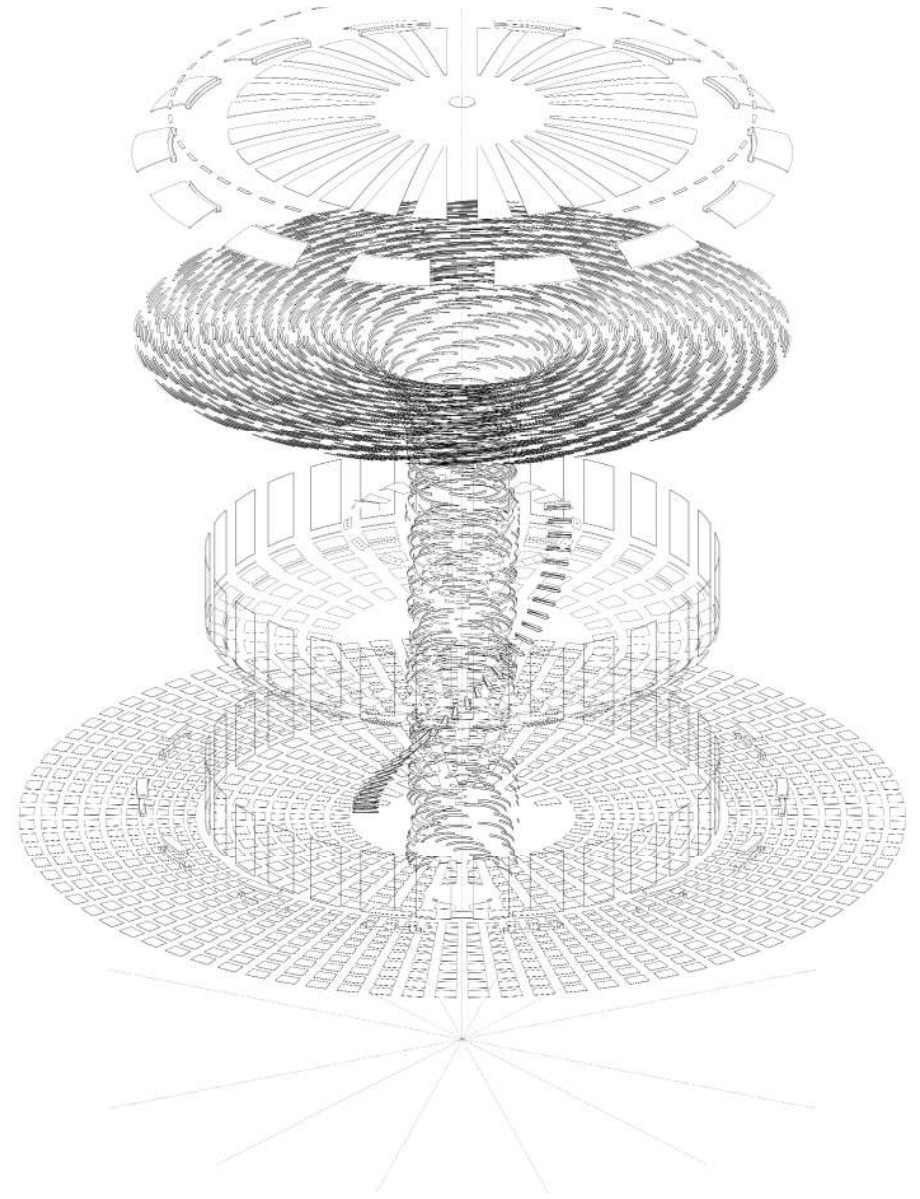
GEOMETRY METHOD STATEMENT



APPLE CENTRAL WORLD

GEOMETRY METHOD STATEMENT

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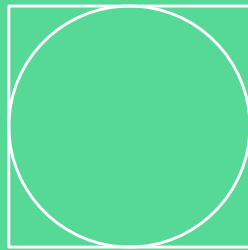
TEKNE LAB

# SERVICES

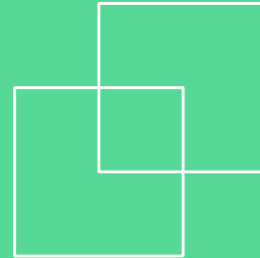
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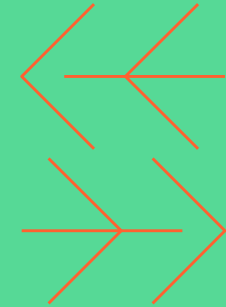
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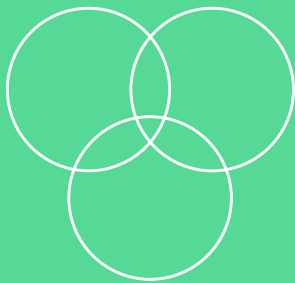
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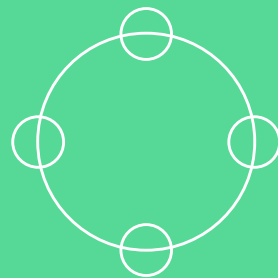
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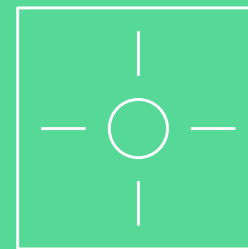
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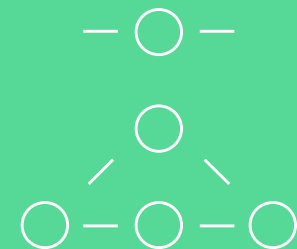
INTEGRATIVE BIM WORKFLOWS

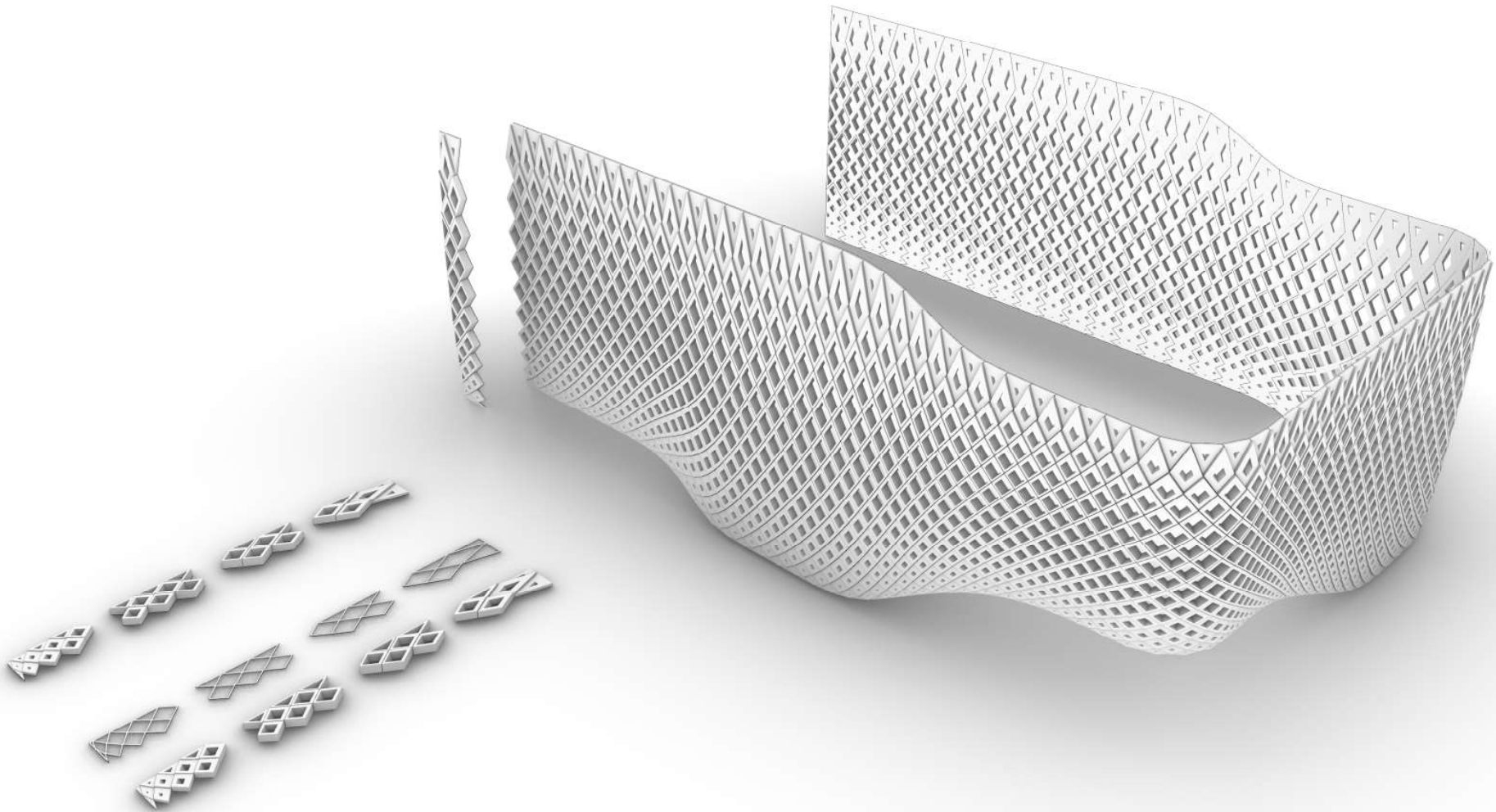


ENVIRONMENTAL ANALYSIS



INDIVIDUAL + GROUP TRAINING

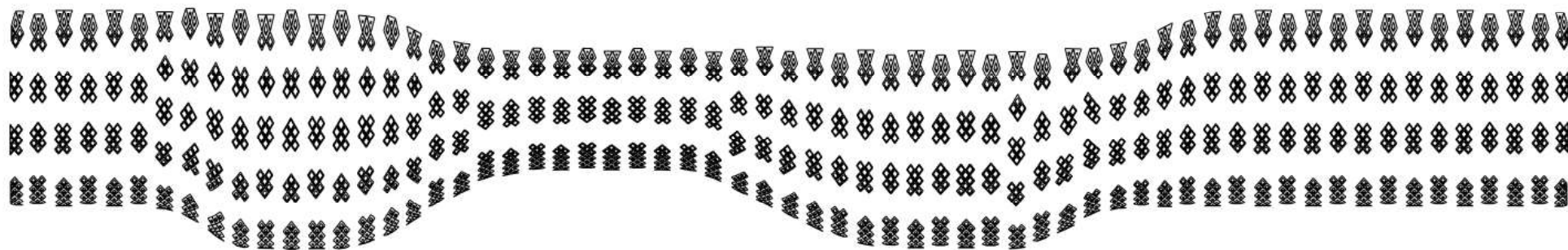
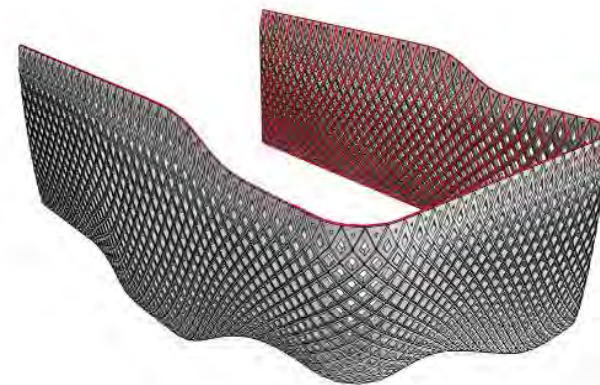
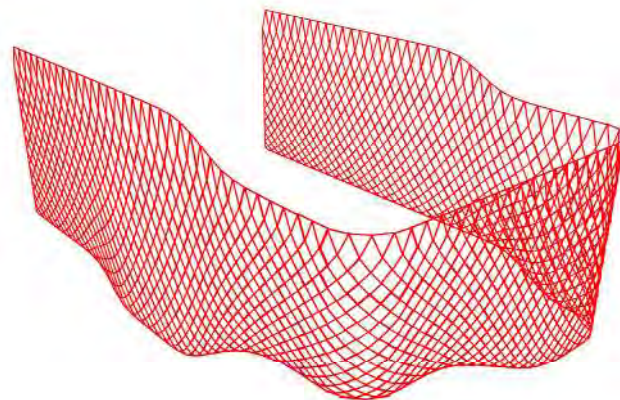
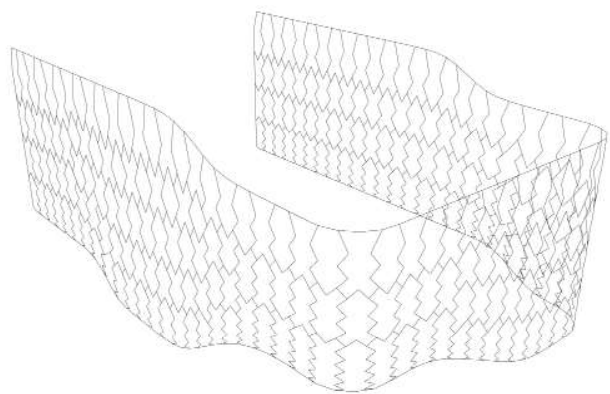




#### DESIGN TO FABRICATION



One of Tekne Lab's key specialisms is the ability to create fluid design to fabrication processes integrated seamlessly into a projects design workflow. With many years of working with all types of advanced fabrication systems, Tekne Lab can perfectly bridge the gap between Architects + Contractors, Designer + Makers, and offer unique services that speak everyone's language and creates better and more robust design processes.

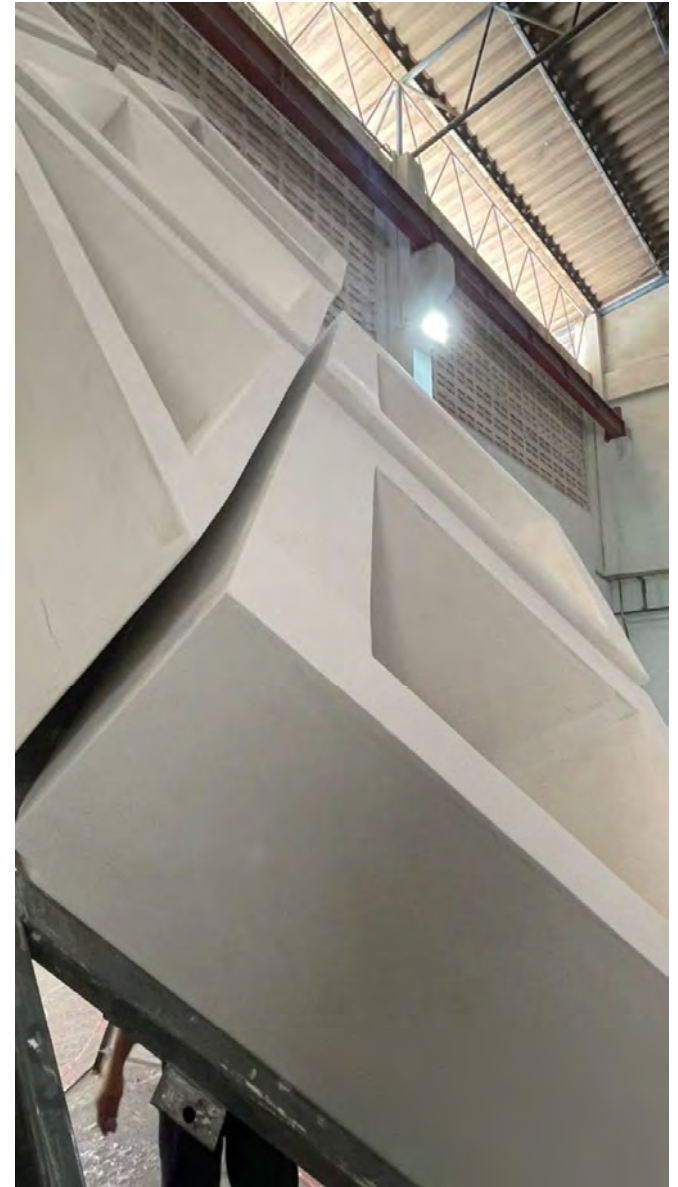


DESIGN TO FABRICATION

FACADE SETTING OUT

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TEKNE LAB

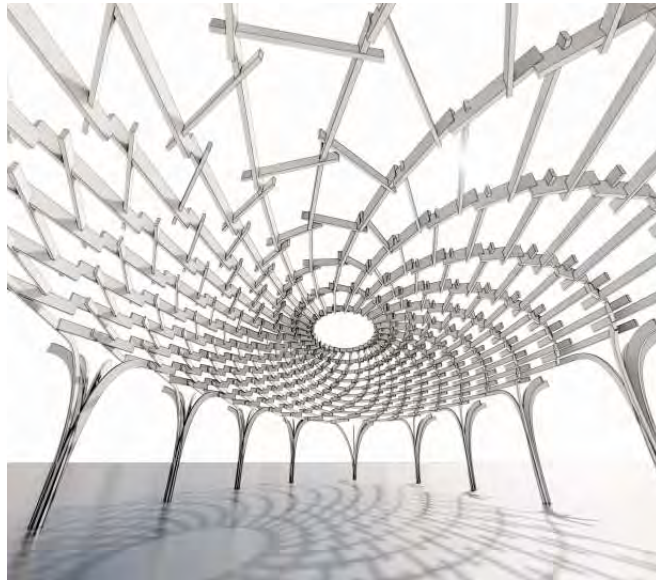


DESIGN TO FABRICATION

FACADE MOCKUP

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TEKNE LAB

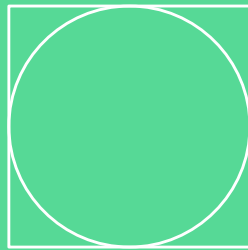


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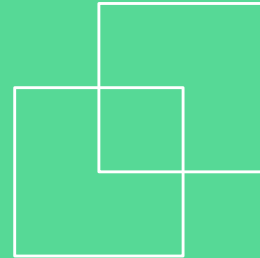
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GEOMETRY OPTIMIZATION



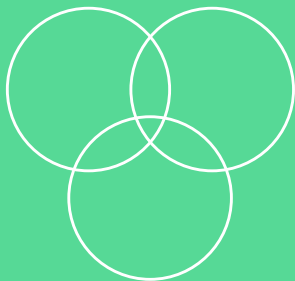
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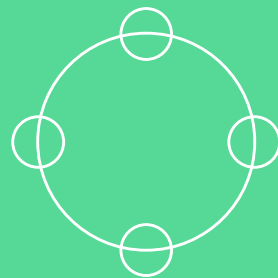
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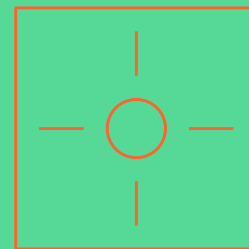
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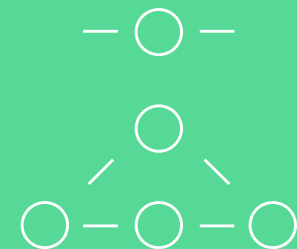
INTEGRATIVE BIM WORKFLOWS



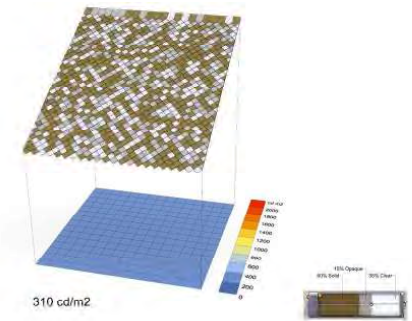
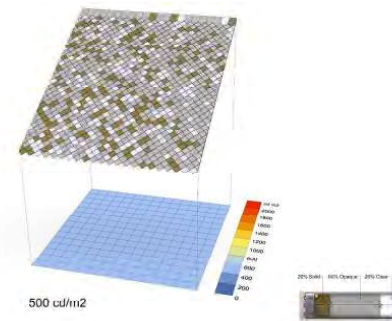
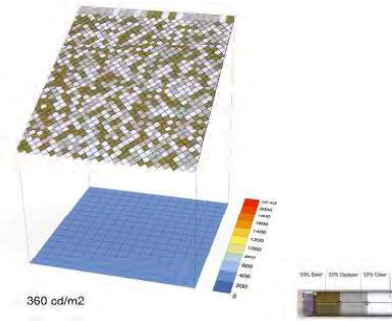
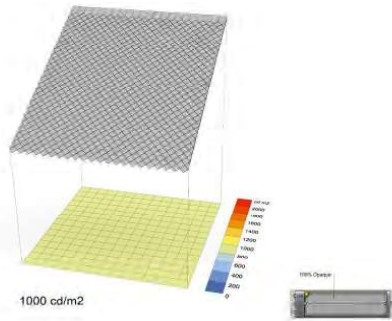
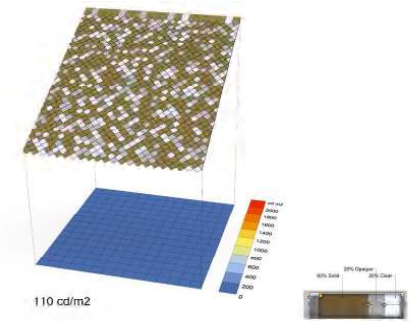
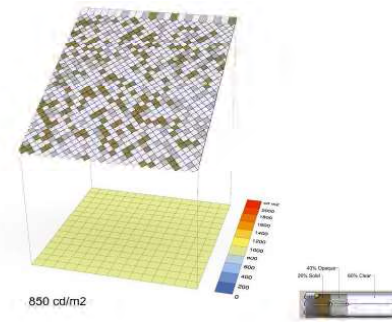
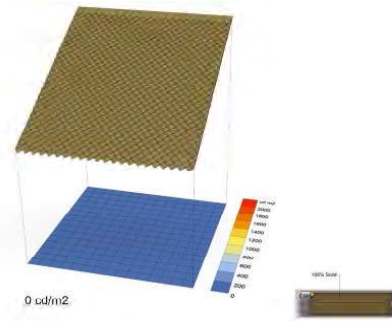
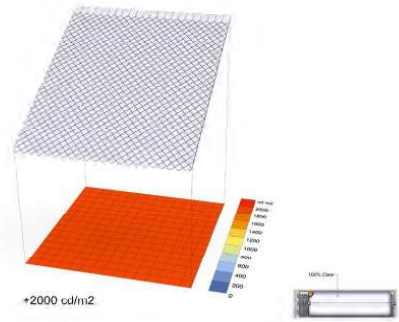
ENVIRONMENTAL ANALYSIS



INDIVIDUAL + GROUP TRAINING







ENVIRONMENTAL ANALYSIS



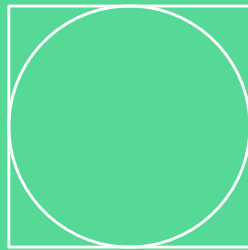
From sunlight hours to sun shading analysis, to testing acoustic and light transmittance performance. Tekne Lab can create custom analysis models for all briefs and requirements.

# SERVICES

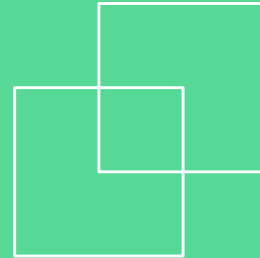
ADVANCED PARAMETRIC DESIGN



GEOMETRY OPTIMIZATION



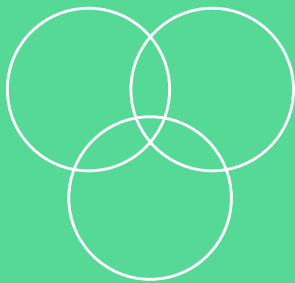
FAÇADE DESIGN



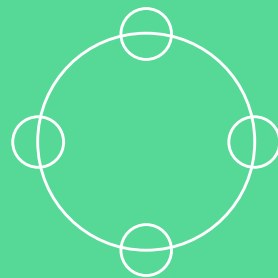
DESIGN TO FABRICATION



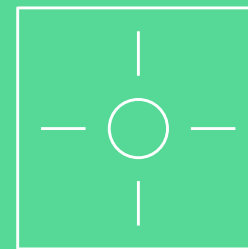
DATA VISUALIZATION



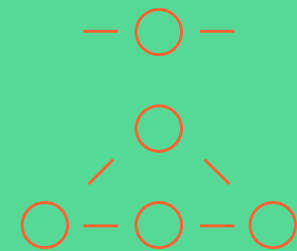
INTEGRATIVE BIM WORKFLOWS

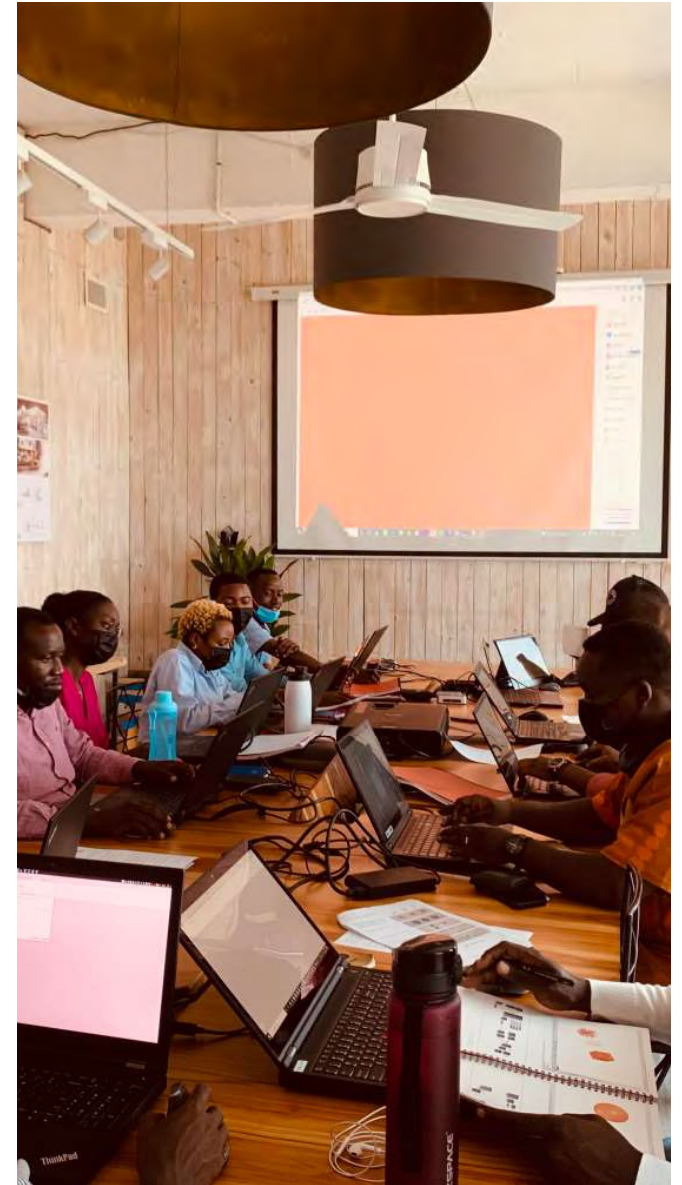


ENVIRONMENTAL ANALYSIS

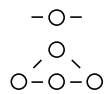


INDIVIDUAL + GROUP TRAINING





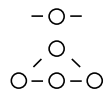
INDIVIDUAL + GROUP TRAINING



Working closely with the Architectural and Structural teams at Mass Design Group in Kigali, Rwanda: Tekne Lab delivered 3 weeks of beginner to advanced Grasshopper training. 12 wonderful students, 60 hours of Grasshopper sessions, 3 weeks spent in an unbelievably beautiful country.



INDIVIDUAL + GROUP TRAINING



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TEKNE LAB

# PROJECT STAGES



DESIGN OPTION DEVELOPMENT  
SITE ENVIRONMENTAL REPORTS  
VR MODEL WALKTHROUGHS



GEOMETRY METHOD STATEMENT  
BIM WORKFLOW SETUP  
PARAMETRIC DESIGN SETUP  
DETAILED ENVIRONMENTAL REPORTS  
GEOMETRY RATIONALISATION  
BIM CONSULTANT COORDINATION



DETAILED DOCUMENTATION  
FABRICATION COORDINATION  
MOCKUP DRAWING PRODUCTION

# ABOUT

Jak Drinnan  
jd@teknelab.io



Jak is an Architect and Computational / Parametric Designer based in Bangkok.

As the founding member of Tekne Lab, Jak offers design consultancy services for Architects and Engineers in Bangkok and the wider South East Asia region. The focus of Tekne Lab is on the development high end, technology driven design solutions for complex building designs / elements. Complex 3Dimensional modelling, geometrical rationalization and optimization, algorithmic and parametric design workflows, full project BIM development and integration, environmental analysis reporting, virtual reality model development, design to fabrication packages; as well as teaching and training on all the above.

Previously working as an Associate Architect at Foster and Partners in the UK and Thailand; Jak was involved in construction of high-end Apple Global Flagship Stores and commercial / residential masterplan projects in China. Jak's expertise lies in the production of advanced geometrical architecture, computational workflows, digital manufacturing processes and methodologies.

Prior to working with Foster and Partners, Jak worked as a Production Design Manager for creative construction company; Nicholas Alexander Ltd. Jak's role involved bridging the gap between Architecture and Construction, design and making. With a focus on digital manufacturing processes and methodologies, Jak has worked and produced projects with a wide range of architects, designers and artists to create unique installations, exhibitions, objects and events.

From 2013 to 2018 Jak was a studio tutor for the MArchstudio 'Abstract Machine' at the Leeds School of Architecture. The studio's research explores the application of computational design in the creation of space, form and architecture, with a special interest in the physical realization of complex fabrication systems.

TEKNE LAB

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Bangkok // Singapore

THANK YOU

