

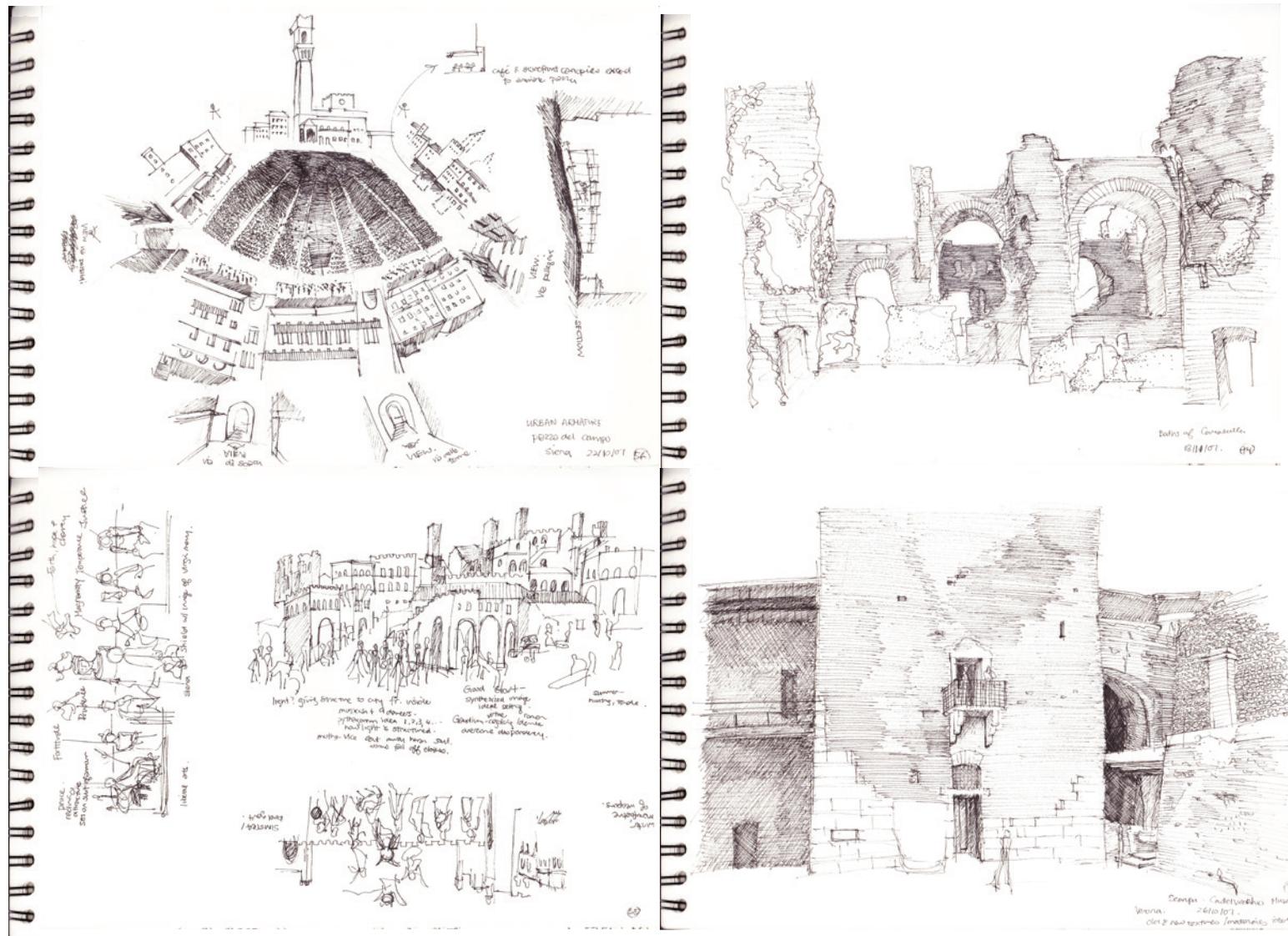
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P O R T F O L I O



# SKETCHBOOK excerpts

Ink on paper  
22 x 38 cm



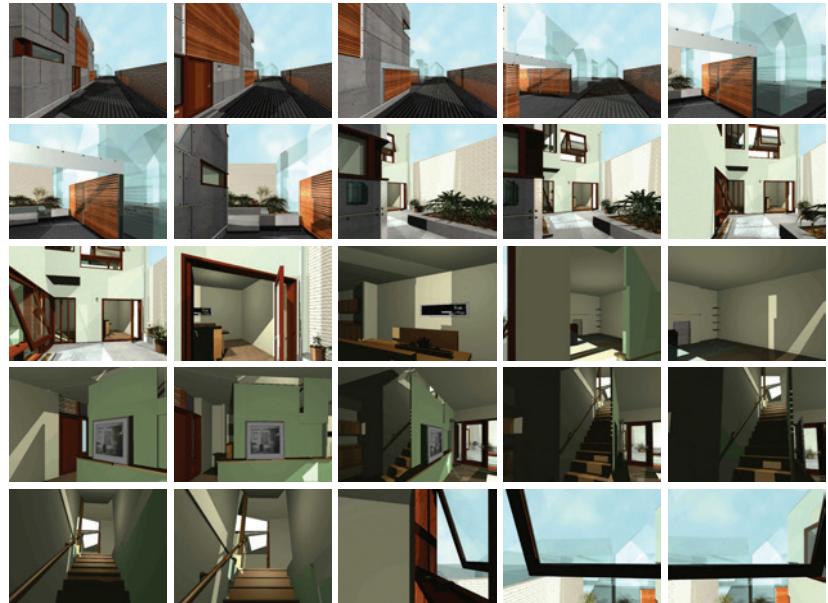
## WAYS LANE RESIDENCE

diamond and schmidt  
architects

*Ways Lane* is a digital modeling study of an urban infill house in Toronto, Canada. These 3D Visualizations focus on materiality and lighting, depicting the house as an enclosed, concrete clad assembly on its public facades with opulent, open internal spaces.



→ Night View of Courtyard



↗ Selected Keyframes in  
 Animation Sequence  
 ↙ Ground Floor Interior  
 ↘ Upper Floor Interior

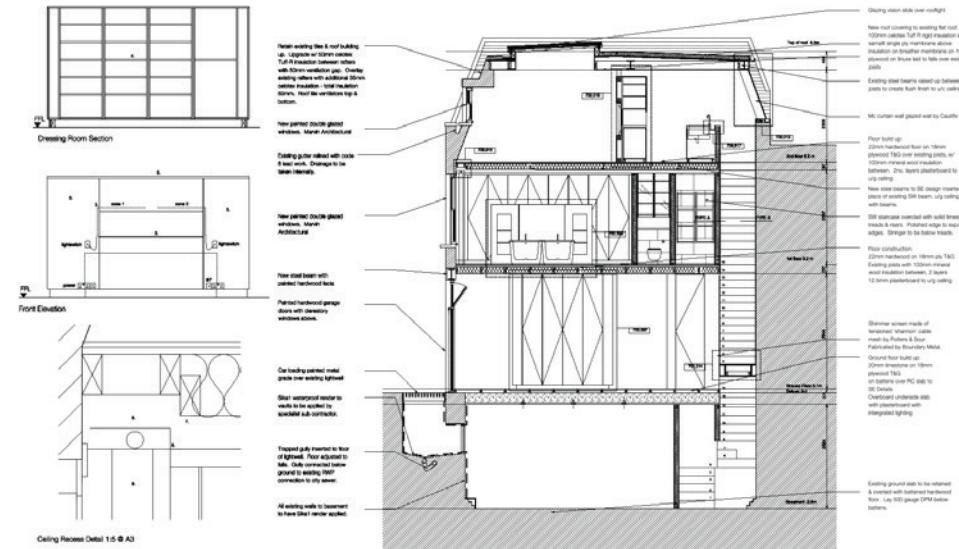
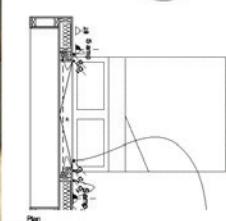
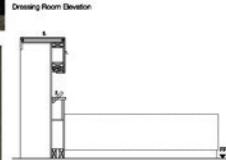
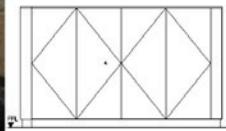
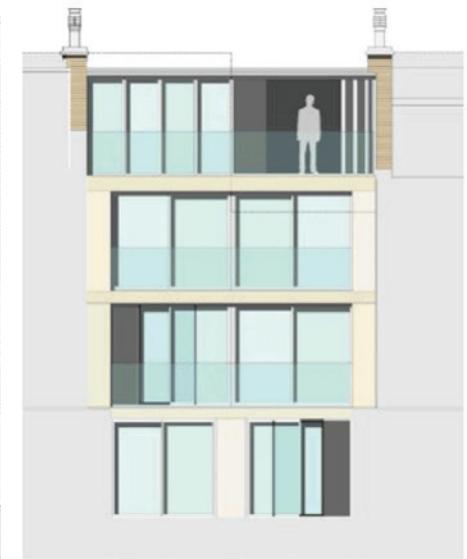
↑ Street View  
 → Sliding Door Detail

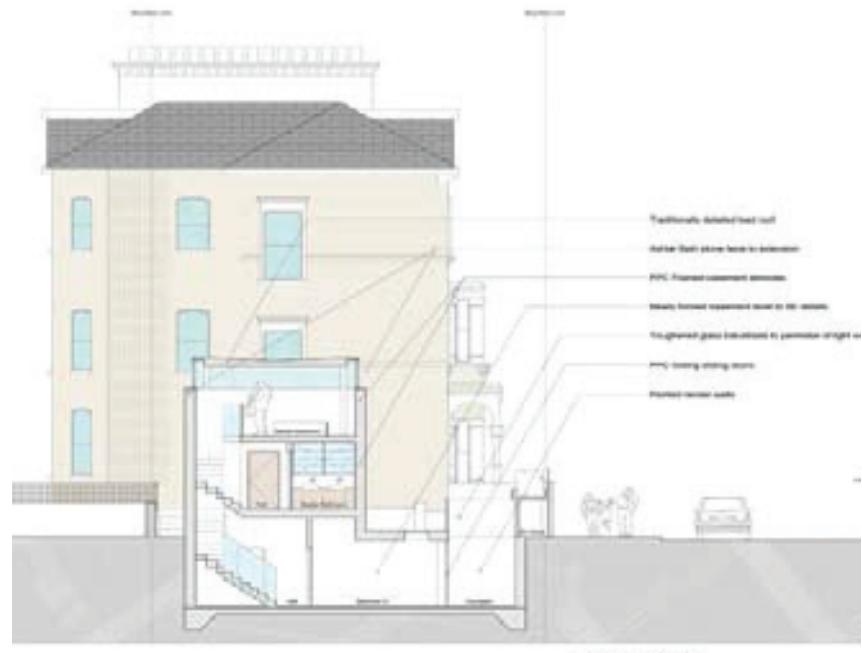


## MEWS HOUSES

cousins wocjciechowski  
architects

Design, planning, and working documents for a range of private residences in London. The projects feature modern materials juxtaposed against a rich historic context. These small, meticulously detailed minimalist dwellings were successfully built in the face of stringent local planning policies.





## FOG POD

f\_rmlab

*Fog Pod* taps into an overlooked resource in response to projected water shortages in San Francisco. By innovating existing low-cost fog harvesting textiles used to collect potable water in desert regions, *Fog Pod* will catch elusive airborne moisture from prevailing winds. The installation's enclosed spaces can also be programmed for children's water play, gardening, and other water functions, making water processes visible, tangible and engaging to the public. Far from a dependence on current systems of water delivery, *Fog Pod* imagines a future of making things where the people of San Francisco can "hack" the atmosphere with ad-hoc fog harvesters.



↑ Perspective View at Entrance

Material	Unit Size/Quantity	Unit Price	Quantity	Total	Notes
Base					
3/4" Plywood boards	1 pc	\$18	450	\$8,100	maple 2ft x 4ft
Wood Glue	1 gl	\$18	4	\$72	
Wood Exterior Sealer	1 gl	\$56	3	\$168	
Structure					
Bamboo Sticks	50 pc	\$104	5	\$520	8ft x 3/4in dia
Fog Harvester Fins					
Wire Frame (wire coat hangers)	500 pc	\$54	2	\$108	
Tulle Fabric	40yd x 54in	\$35	2	\$70	
Jig (wood board+pegs)	1 set	\$15	2	\$30	Fabricated by the team. For stretching Wire Frame Ballpark figures
Hardware					
Plugin Connection (base to bamboo)				\$200	
bolts (fins to bamboo)				\$300	May be replaced by 3D print
3D Printing Material					

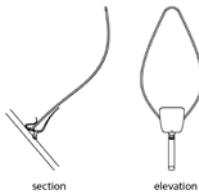
List of Anticipated Machines and Materials Needed:

Component	Material	Fabrication Method	Machines:
Skeletal Framework	Bamboo	Woodwork and weave	Woodshop: -Delta Drill Press -Hand Saw -Shaping Compound Miter Saw -Misc. Handtools -Misc. Portable Tools
Joints and gaskets	ABS Plastic (or Steel)	3D Printing (or lasercut and metalwork)	3D Print Shop: -Object 3D Printer -Object 3D Printer Complex using multi-material ABS Clear and TangoPlus (or Omax Waterjet CNC for steel joints)
Fins	Tulle Fabric Wire/Wire Hanger	Sewing Metalwork with Jig Metashop: -Pneumatic Brake/Bending Machine Woodshop: -Misc. Handtools	Sewing and Knit Room: -Juki Sewing Machine -Juki Serger Machine Metashop: -Pneumatic Brake/Bending Machine Woodshop: -Misc. Handtools

↑ Project Budget & Equipment Matrix

→ Fin elevations and section

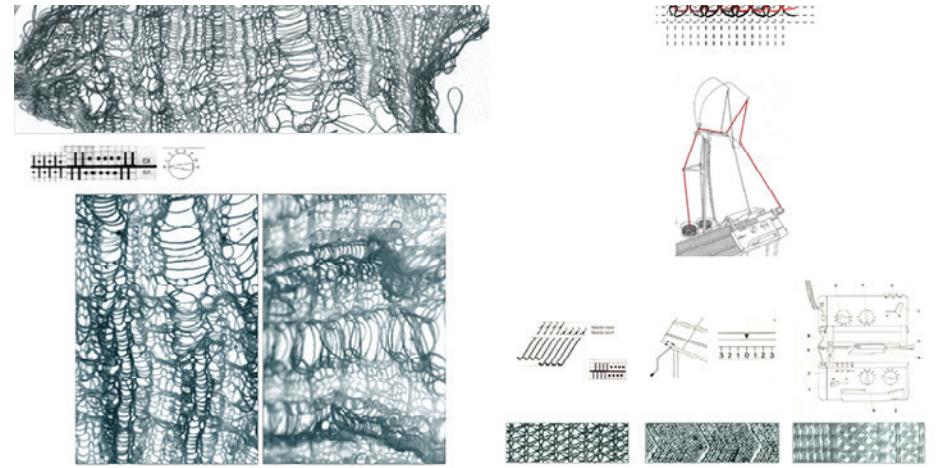
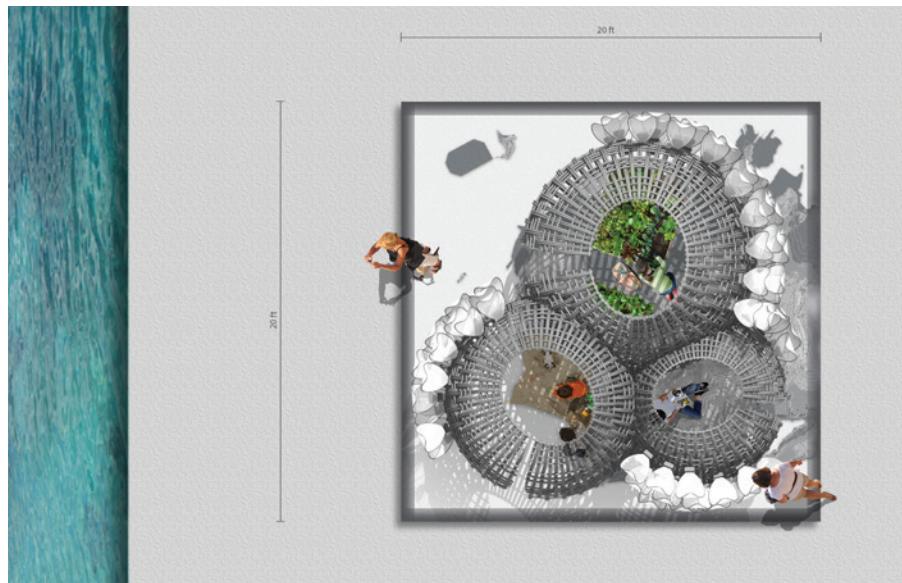
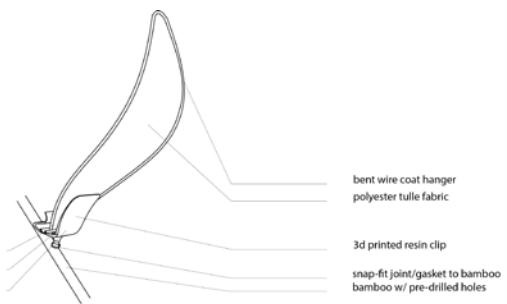
↙ Ground Floor Plan



↖ Perspective View of Fog Pod

↙ Fin Axonometric

↙ Fabrication tests using knitting machine



## SCUNTHORPE SPORTS CENTRE

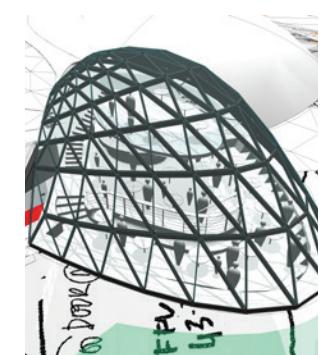
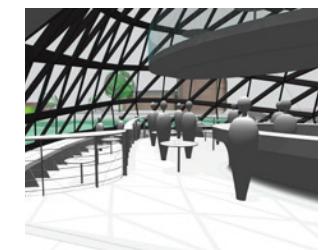
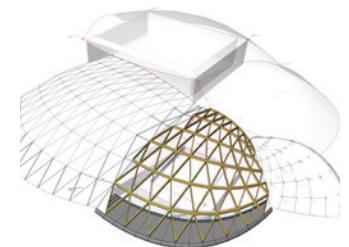
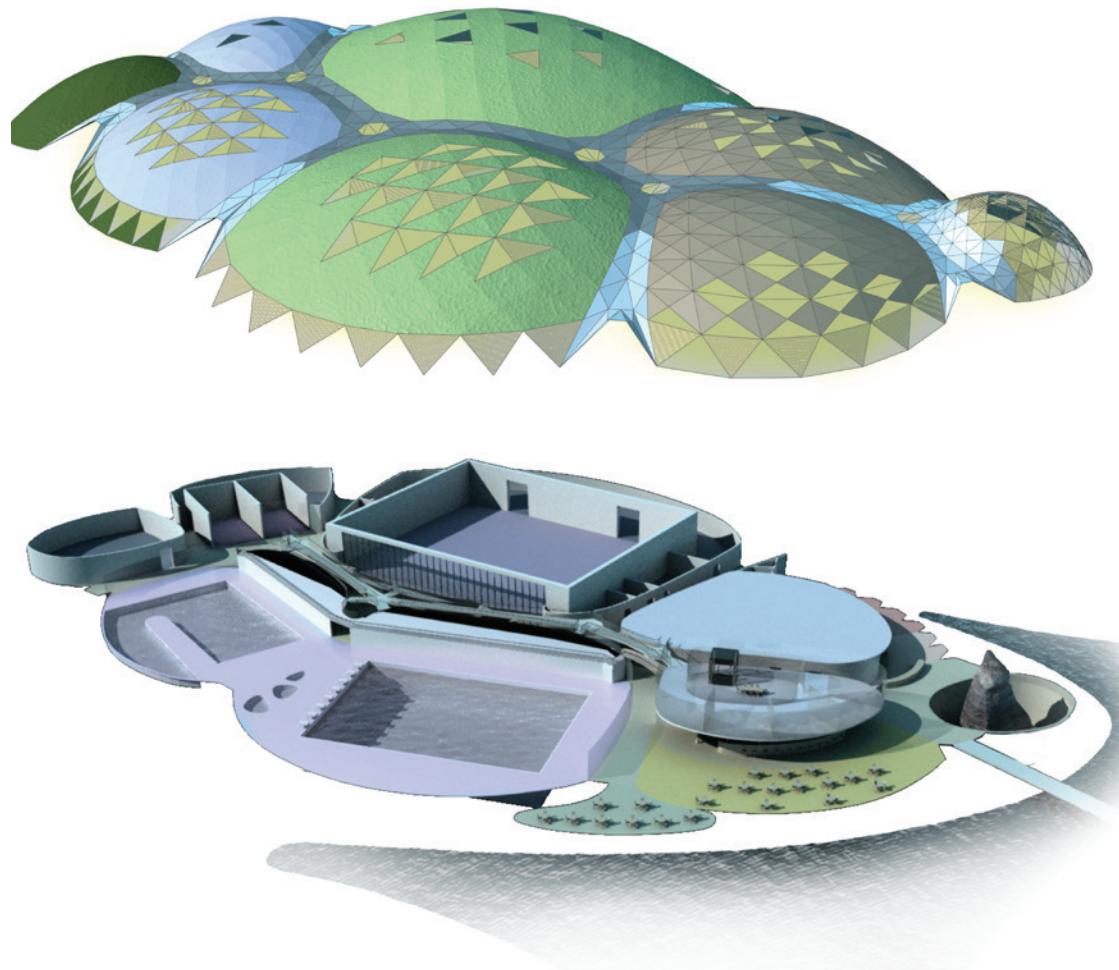
andrew wright associates

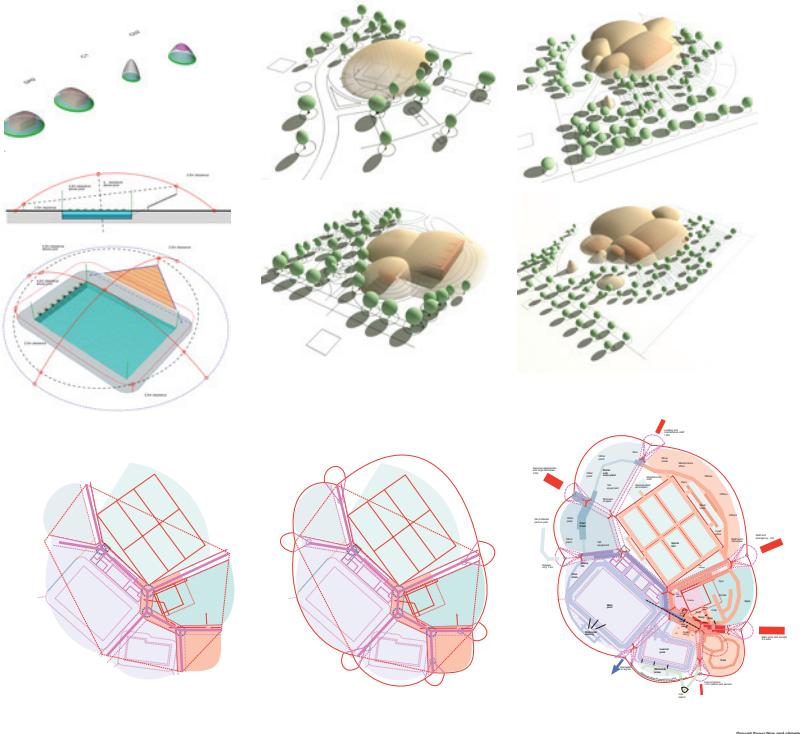
This iconic sports complex and its surrounding parkland aim to revitalize the North English town of Scunthorpe. My involvement in the preliminary tender and detailed design phase (RIBA Stage D & E) of realizing this public building centred on articulating the interior space and structure.

Studies were made in Rhino to develop a structural system for the elliptical domes. Spatial organization and environmental compartmentalization were also clarified three-dimensionally to comply with UK building regulations.

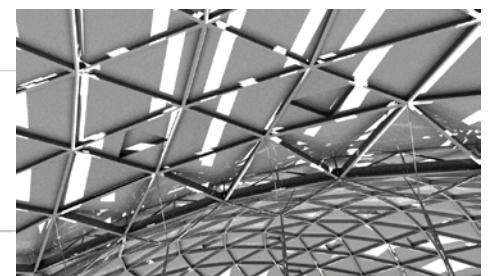
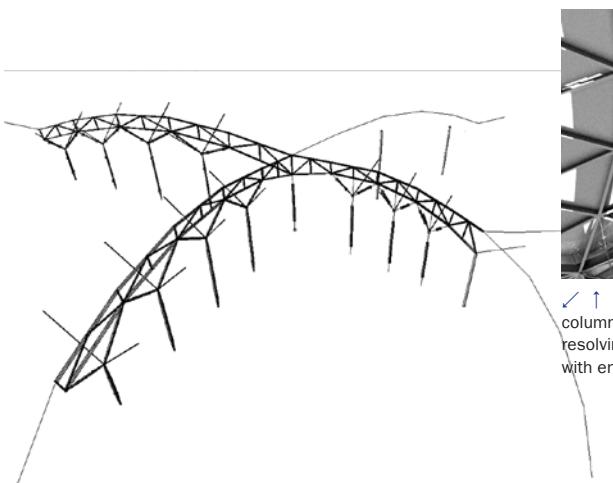
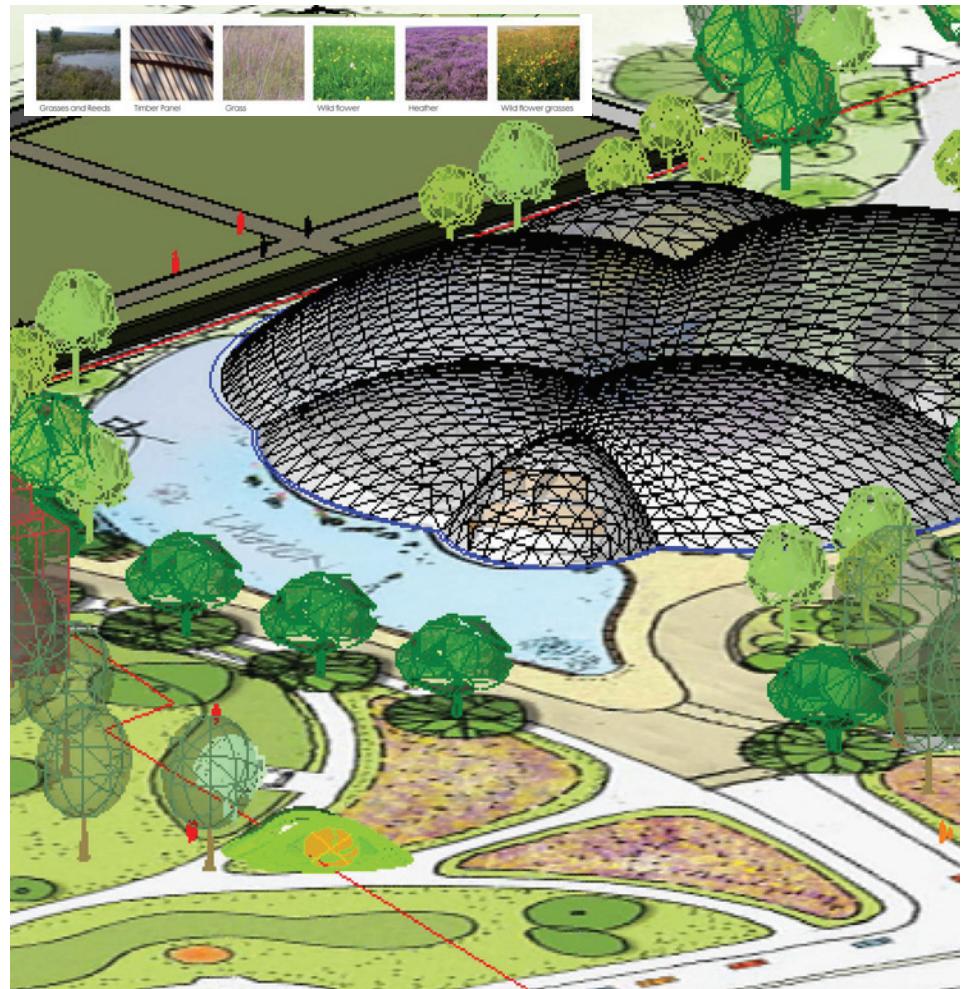
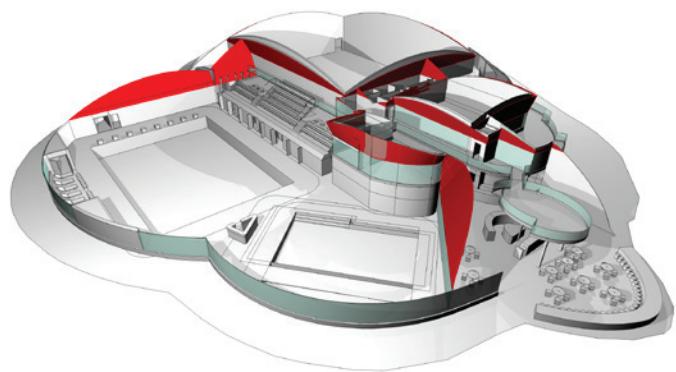
→ Roof Forms and Interior Layout

↗ ↙ ↛ Articulating the Shape and Spatial Arrangement of the Reception Area





↑ Deriving the dome geometry from sports programme  
→ Aerial view of roof biomes, swales, green roof material palette and landscaping

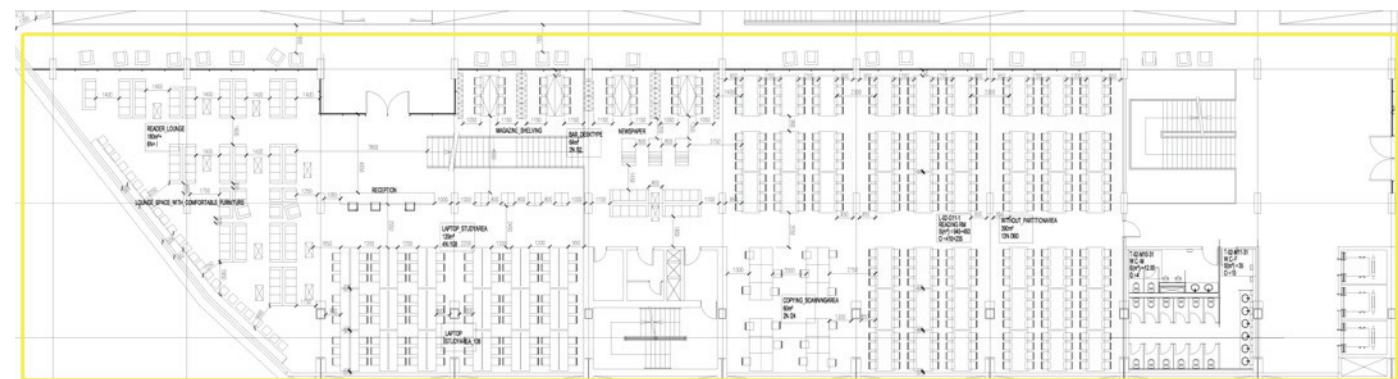


↑ Modelling and articulating columns along a structural spine, resolving timber truss geometry with engineers

## EWHA WOMEN'S UNIVERSITY

dominique perrault architecture

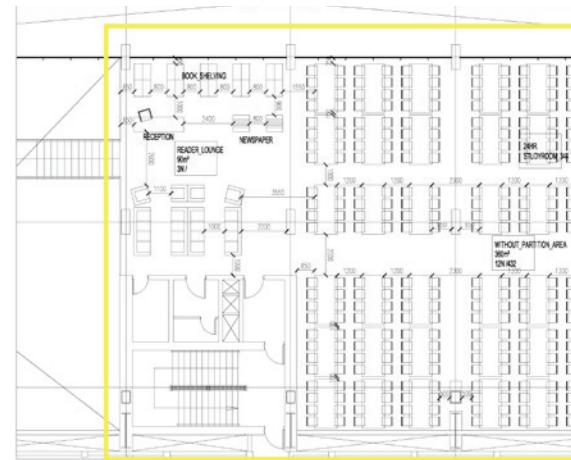
Complete space planning and interior design packages for classrooms, seminar rooms, libraries and common spaces for the EWHA Women's University in Seoul. As an intern at Dominique Perrault Architecture, I worked closely with project leaders to design, produce and coordinate the drawing set, and modelled and detailed custom furniture for fabrication.



### LEARNING FACILITY

1

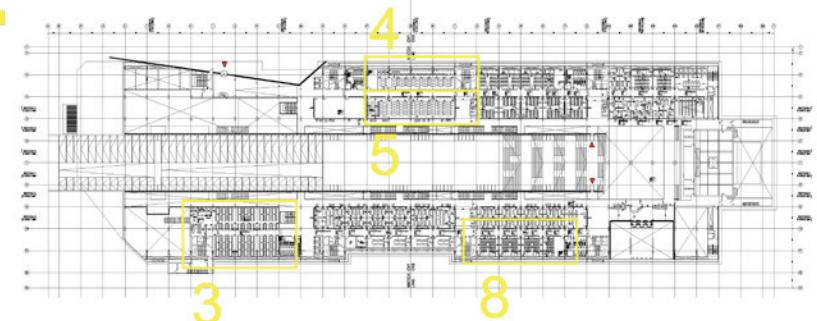
24H STUDY ROOM\_PERIODICALREADER'S LOUNGE\_STUDYING AREA



### LEARNING FACILITY

3

24H STUDY ROOMREADER'S LOUNGE\_PERIODICALS\_STUDYING AREA

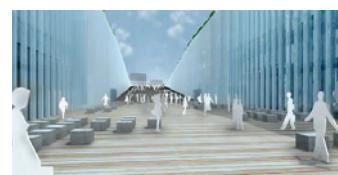


3

4

5

8

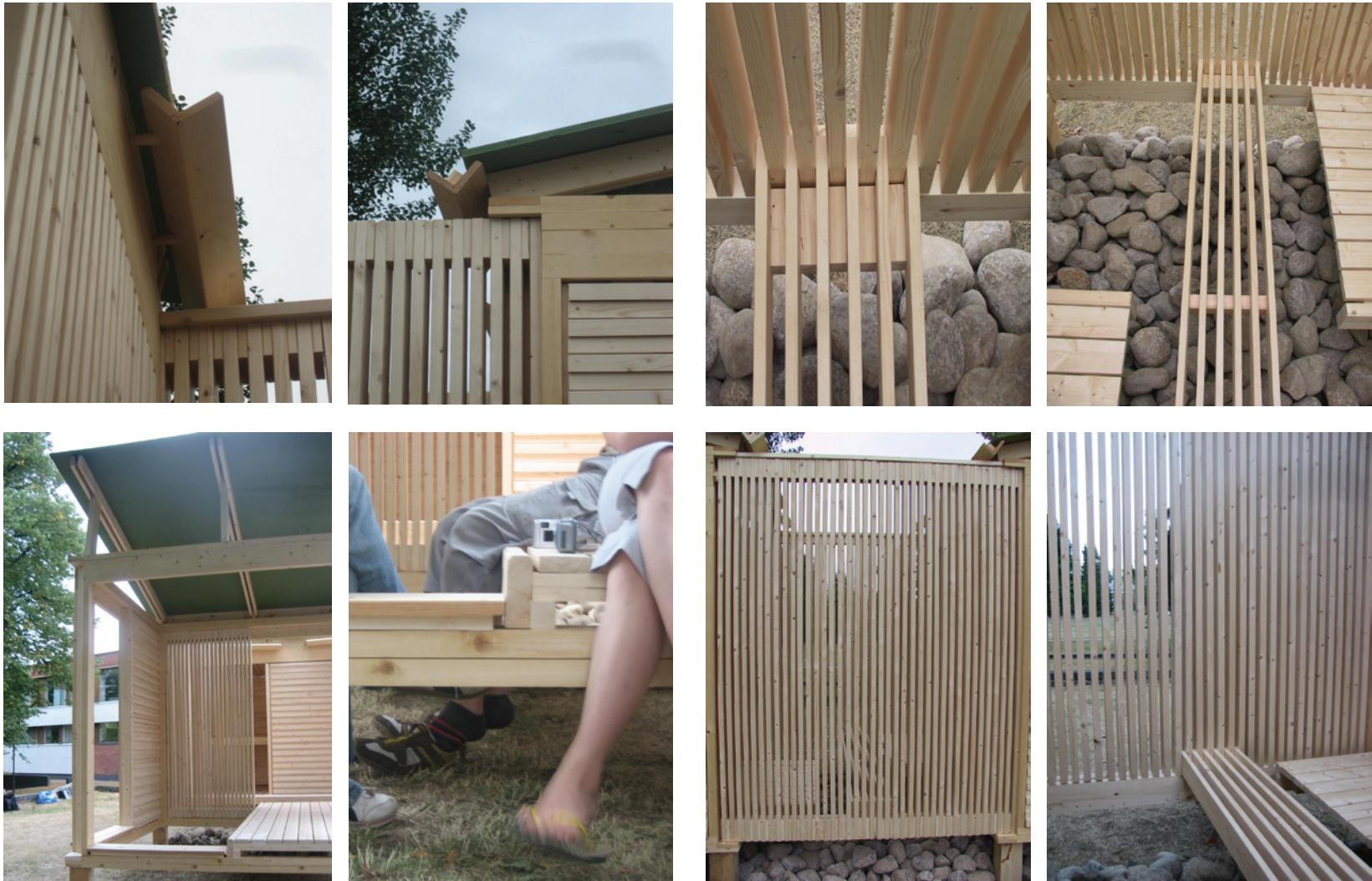


## WOOD SAUNA

helsinki summer studio

Erected on Alvar Aalto's Otaniemi campus, this sauna is the product of an intensive design-build at HUT/TKK's Wood Program. Working in a team of 15 students, scale model designs, full-scale mock-up details, pre-fabrication and assembly of modular elements were completed on a 2 week schedule. The design comprises two solid boxes - the heated sauna fully enclosed, the terrace open to the earth, with a translucent intersitial shower space focused skywards.





↑ ↗ Invisible Wooden Gutter  
Connection Detail using Wooden Dowels.  
Gutters collect rainwater for showering.

↓ Double Beams of Butterfly Roof

└ Floorboards run parallel to structure with this detail.  
Terrace Floor doubles as seating.

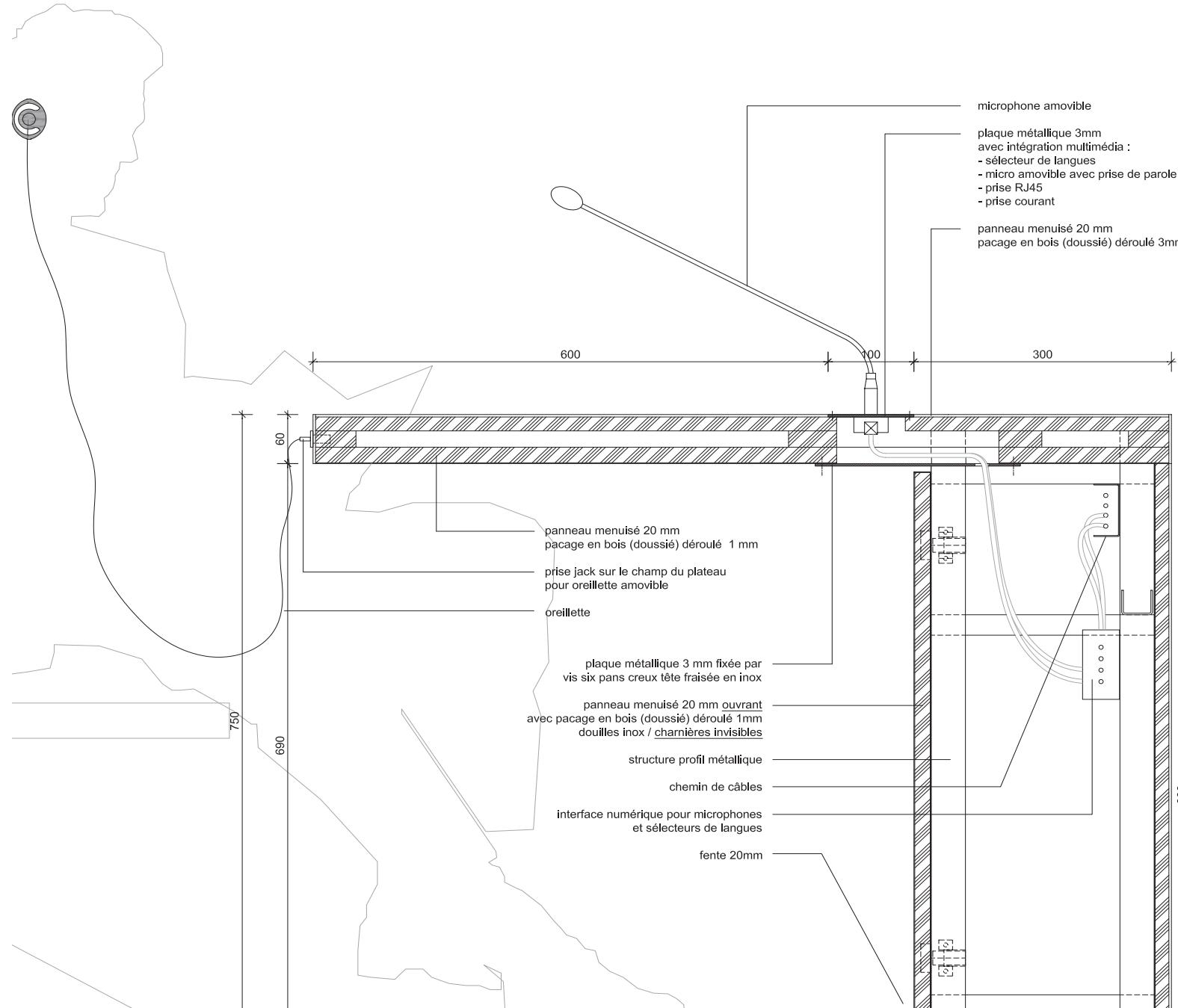
↑ ↗ Contemplation Bridge/Screen Wall Connection Detail  
↑ Meandering Bridge between Cantilevered Floors  
↓ Translucent Wall of Intersitial Shower Space  
↓ Translucent/Solid Contrast

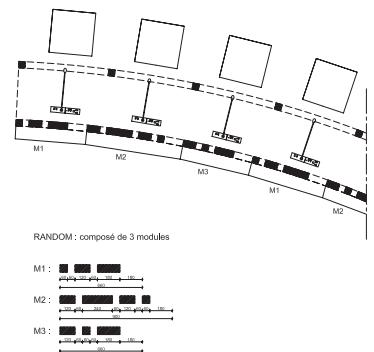
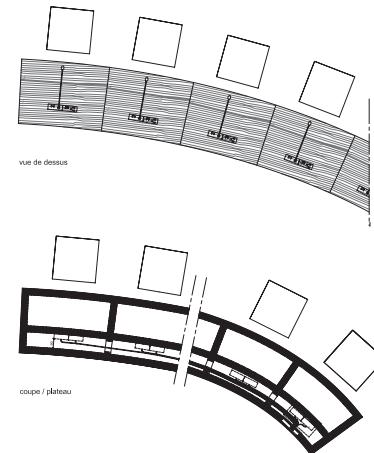
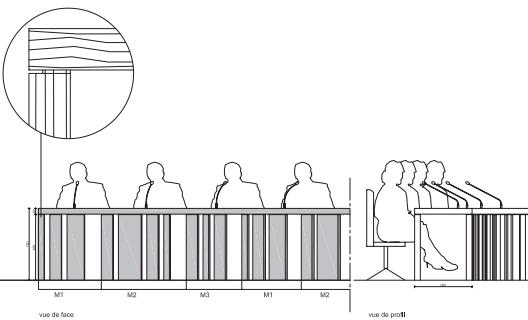
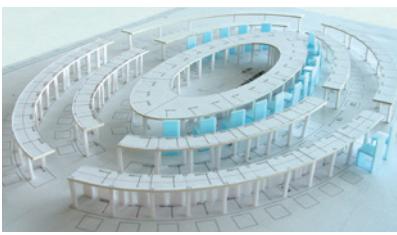
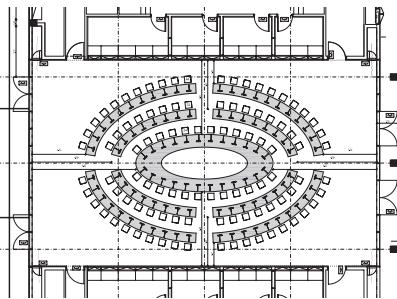
## COUR DE JUSTICE DES COMMUNAUTÉS EUROPÉENNES

dominique perrault architecture

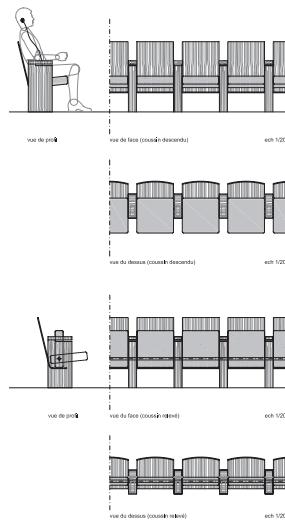
Mock-up models and details for custom furniture in the European Communities' Court of Justice in Luxembourg. As an intern at Dominique Perrault Architecture, I made sketch models, worked out technical details and specified materials in consultation with the office's artistic director.

→ Large Conference Hall Table with Built - in Microphones and Headsets

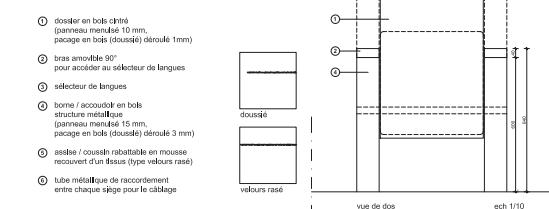
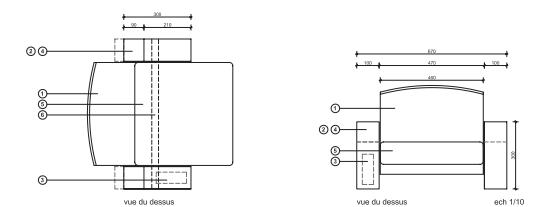
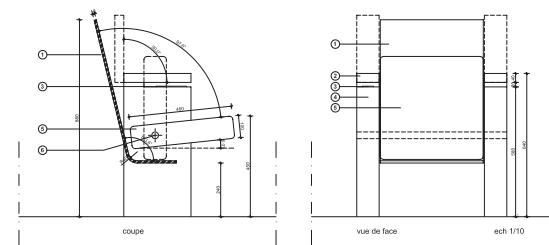
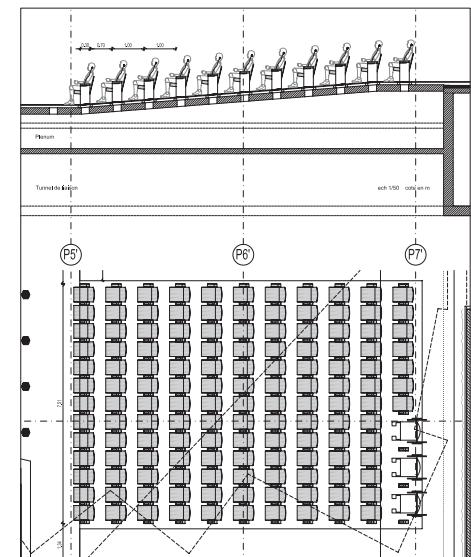




- ↖ Conference Room Plan
- ↖ Table Leg Pattern Elevation
- ↖ Sketch Model
- ↑ Table Grain, Cabling and Table Leg Pattern



- ↑ Open/Closed Chair Elevations + Plan
- ↗ Cardboard Models
- ↗ Chair Auditorium Plan
- ↗ Chair Specifications



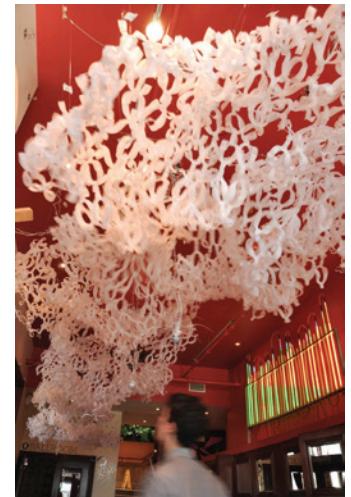
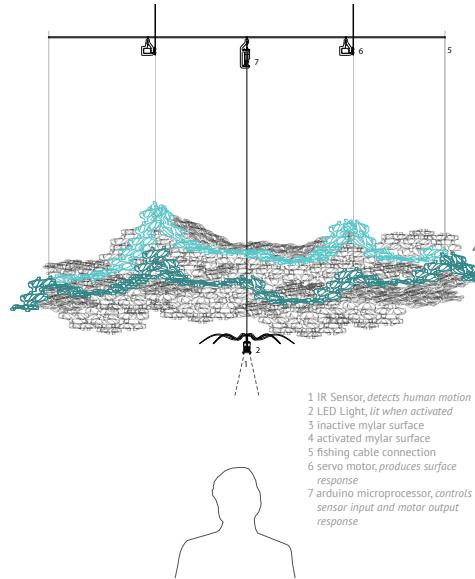
## FIELD GUIDE

f\_rmlab

*Field Guide* is an interactive installation composed of an intricate modular surface that is manipulated by an embedded digital infrastructure.

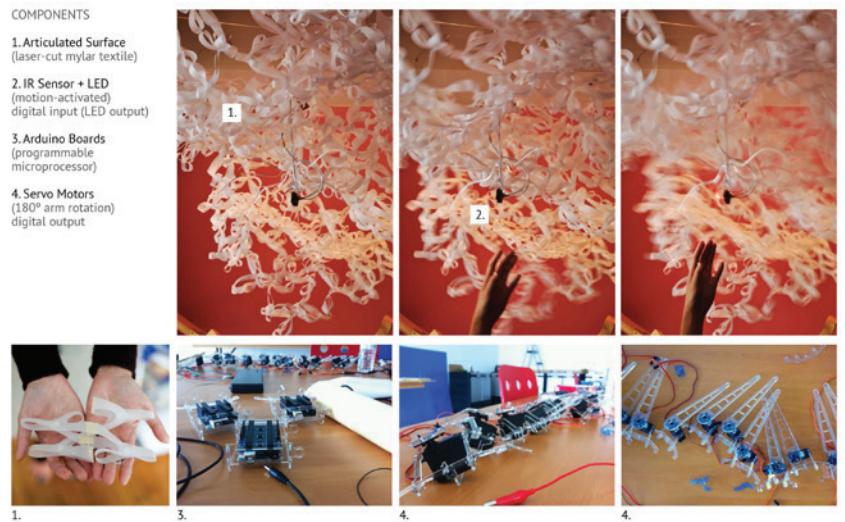
Programmed to respond to the motion of passing viewers, the installation provokes our participation and dynamic engagement with everyday spaces. of site topography to create a sensous playground that ties the buildings into their forest setting.

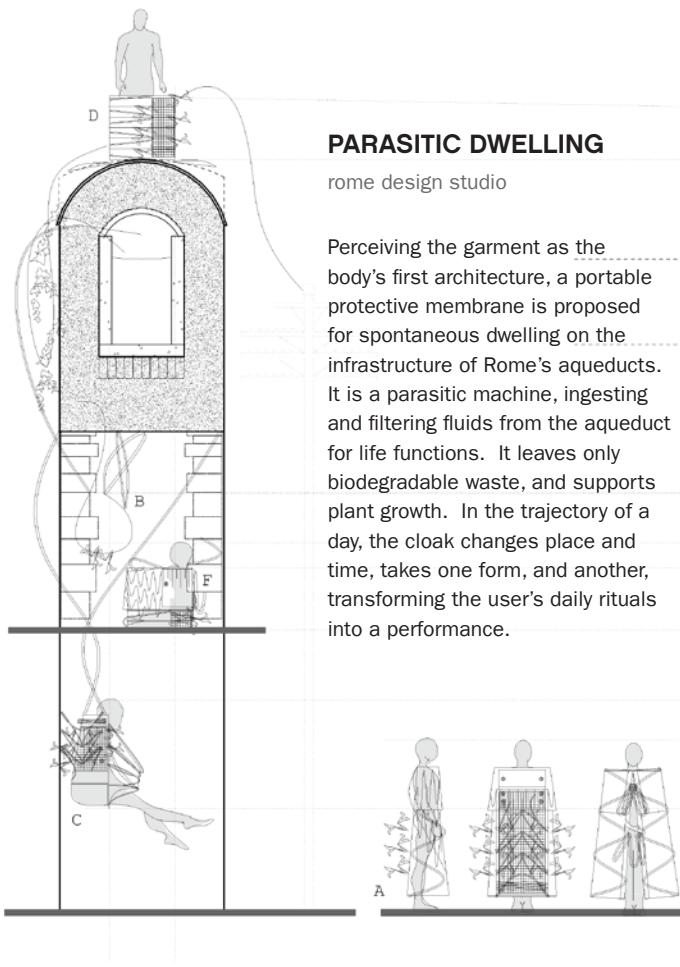




#### COMPONENTS

- 1. Articulated Surface (laser-cut mylar textile)
- 2. IR Sensor + LED (motion-activated digital input (LED output))
- 3. Arduino Boards (programmable microprocessor)
- 4. Servo Motors (180° arm rotation) digital output

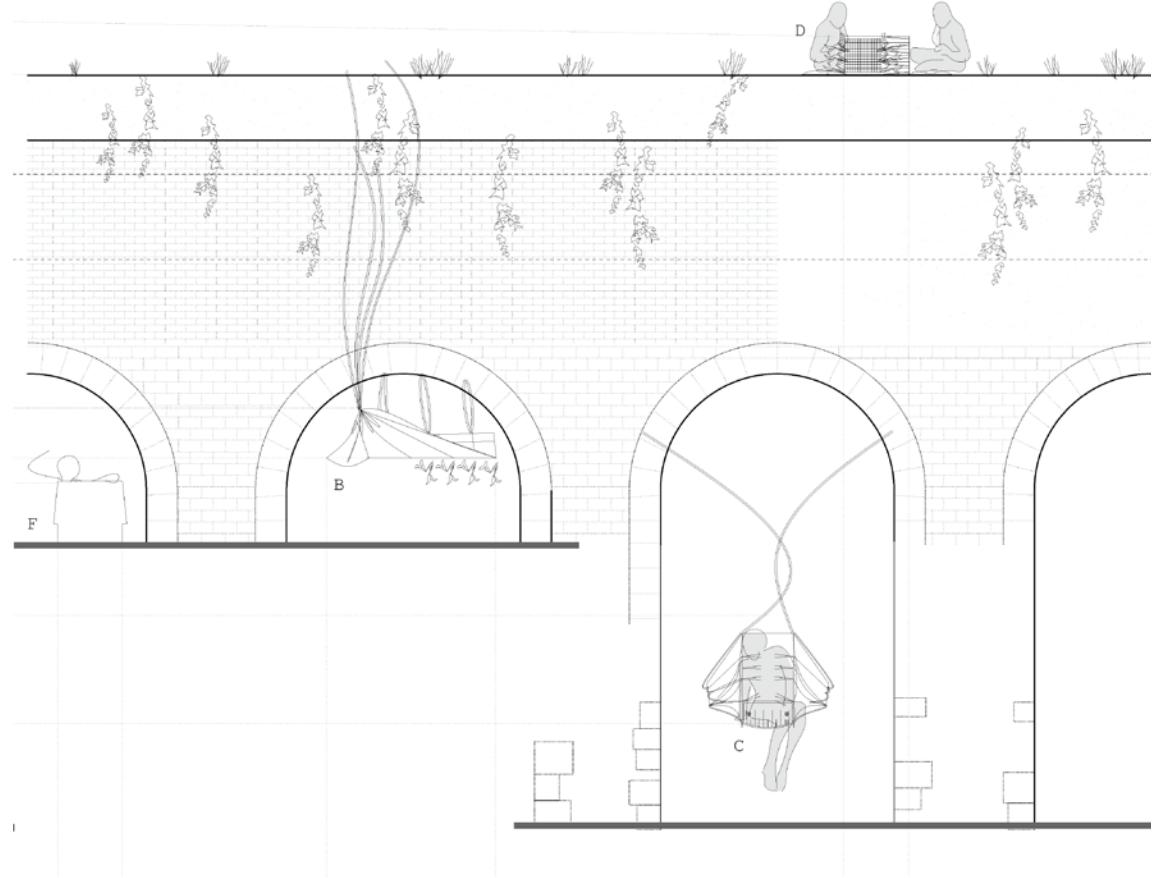




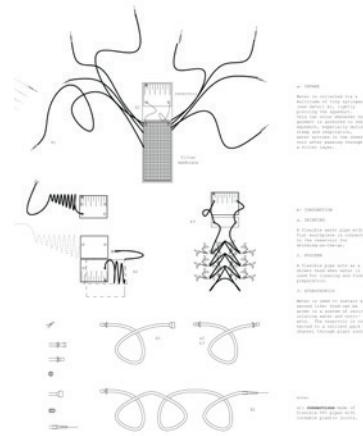
## PARASITIC DWELLING

rome design studio

Perceiving the garment as the body's first architecture, a portable protective membrane is proposed for spontaneous dwelling on the infrastructure of Rome's aqueducts. It is a parasitic machine, ingesting and filtering fluids from the aqueduct for life functions. It leaves only biodegradable waste, and supports plant growth. In the trajectory of a day, the cloak changes place and time, takes one form, and another, transforming the user's daily rituals into a performance.



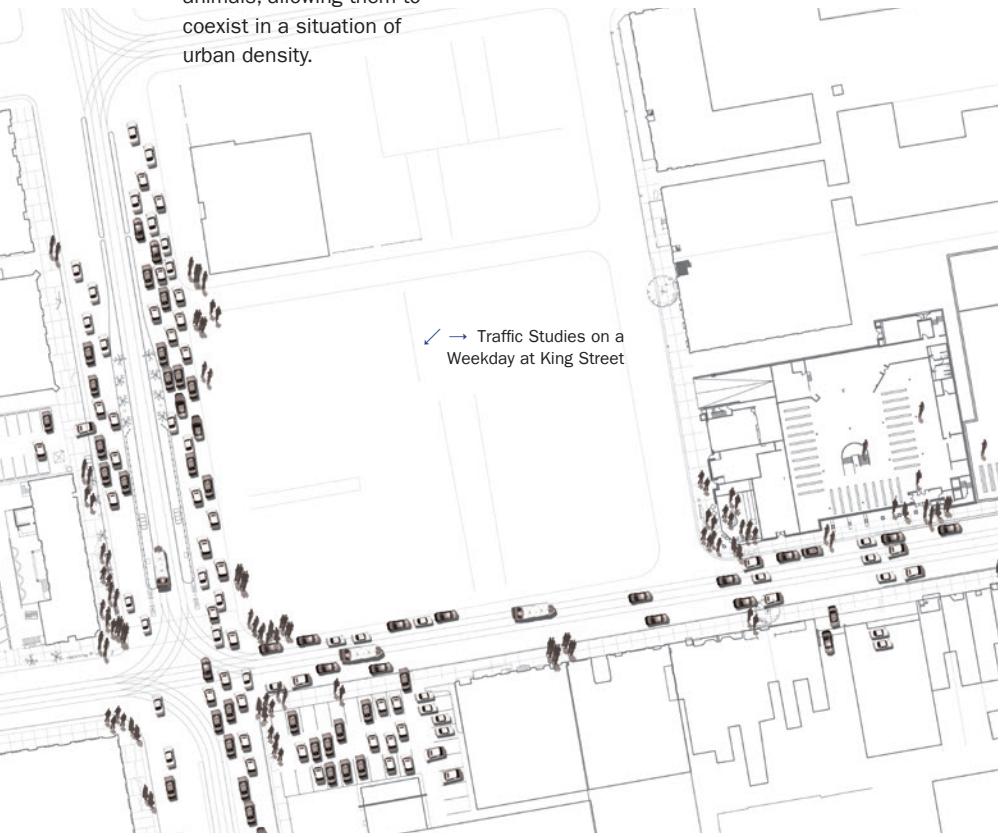
- ↑ Section through Aqueduct, showing the Parasitic Dwelling in Various Uses
- ↗ Elevation of Various Uses
- Manual for Use of Garment
- ↳ Garment derived from basic human dimensions



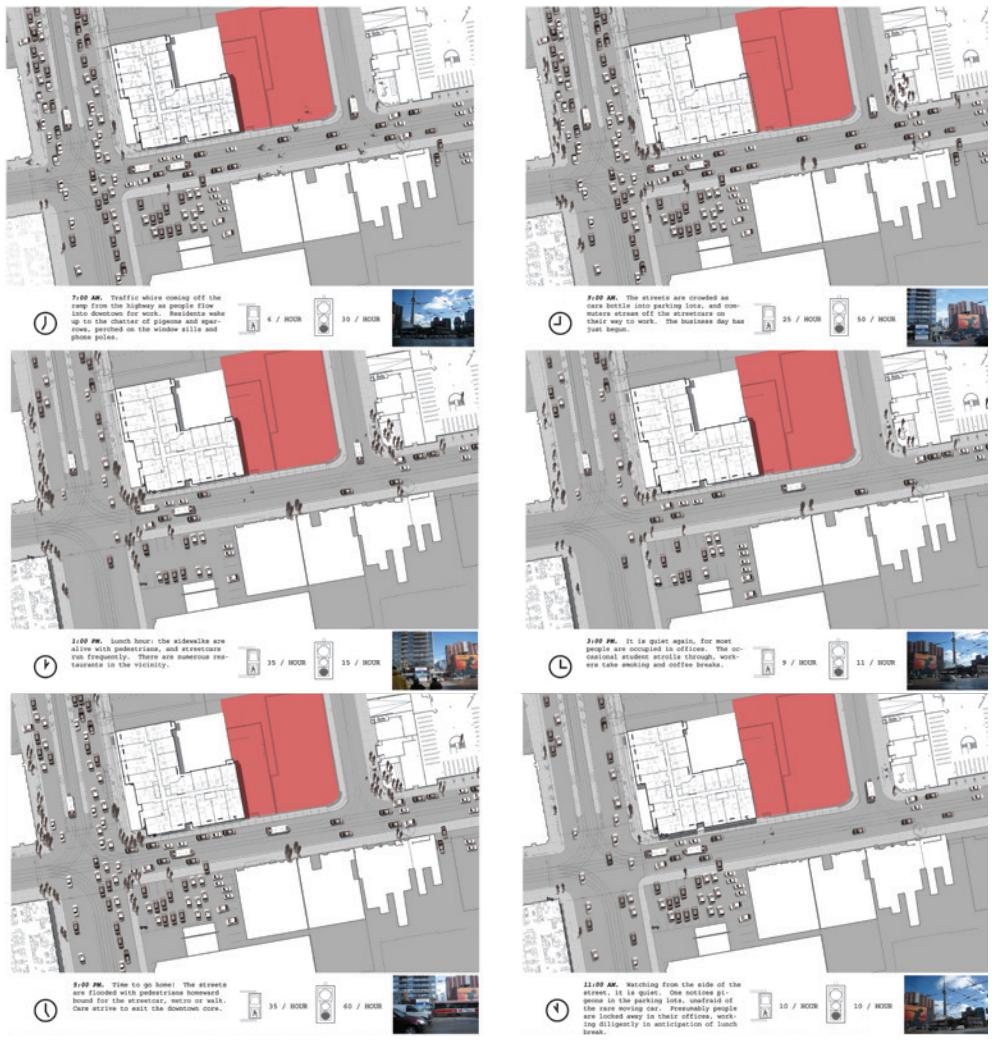
## STREET STUDIES

urban design studio

These diagrams register elements on a busy intersection in downtown Toronto. Time-lapse observations note the patterns of activity of different site users. There are subtle architectural devices which permit different movements of vehicles, businessmen, residents, and urban animals, allowing them to coexist in a situation of urban density.



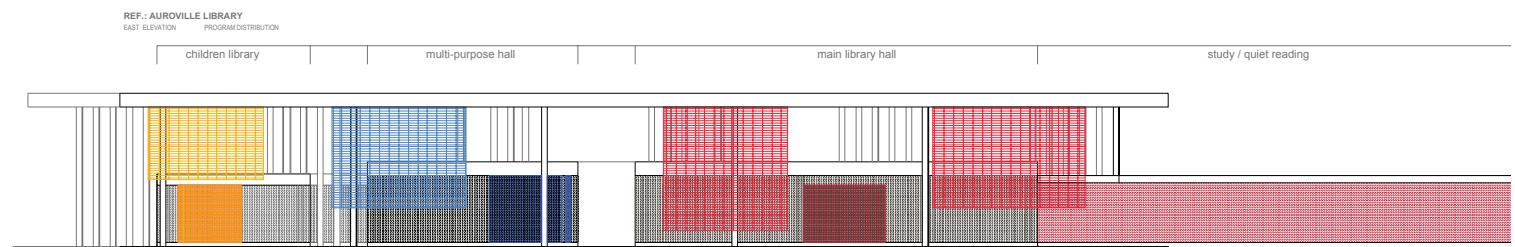
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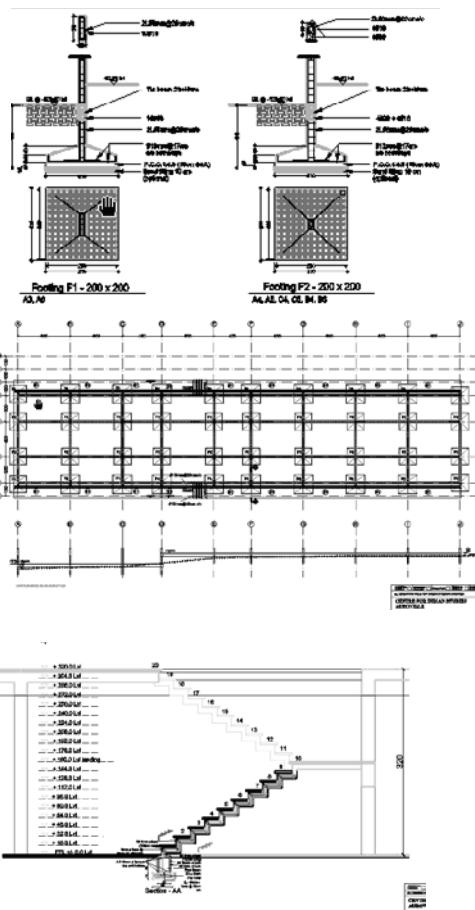


## CENTRE FOR INDIAN STUDIES

auroville design consultants

The Centre for Indian Studies is a community cultural centre in rural India featuring rammed earth construction, recycled materials and passive environmental cooling systems. Choices for building materials using appropriate technology and alternative energy were made according to the values of an ecologically-conscious community. As the project architect, I produced all working drawings and supervised the first phase of construction.





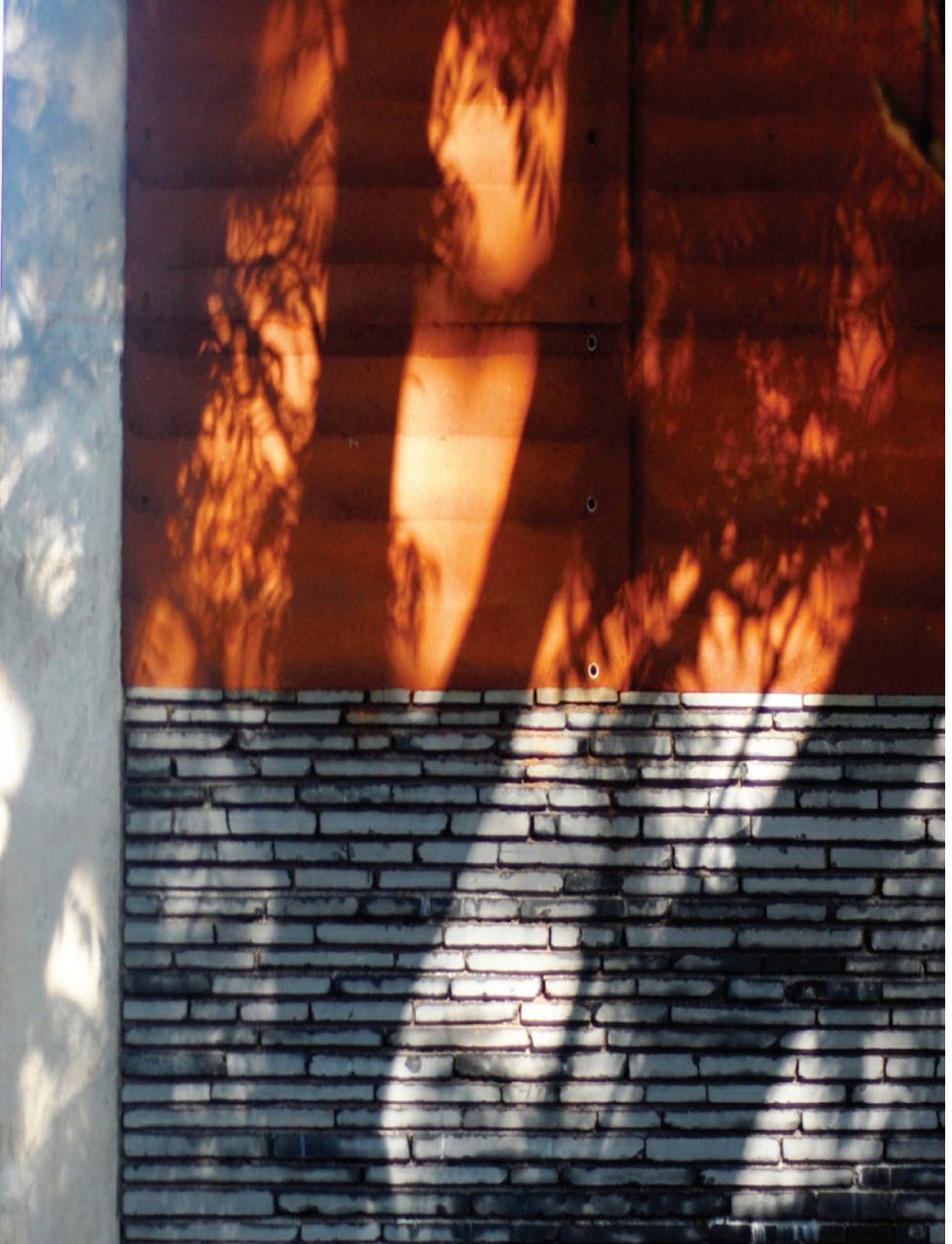
↳ Foundation drawings;  
resolving structural grid and services  
with engineers' calculations

↑ Test walls using recycled slate with masons

## Site visit: foundations

→ Site photo of rammed earth and slate wall

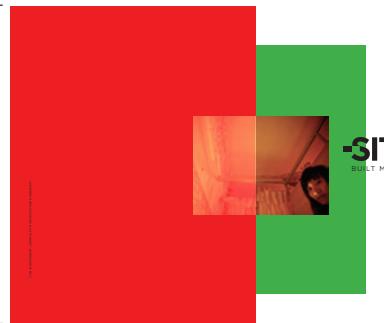
↓ Exterior Sketch



## -SITE MAGAZINE

-SITE Magazine won a MagsCanada Grandsprix for Best Art Direction in 2017. As the editor-in-chief, I provide detailed layout notes and digital sketches to our creative director to ensure the successful translation of content to layout. In the layout process, I coordinate between our graphic design team (lead by Carey van der Zalm), our feature photographers, and the authors. For v.36 Vernaculars (shown here) we partnered with the Department of Unusual Certainties and developed their contribution into a graphic element that runs along the margins of the issue.





**TOWARDS A HUMAN CENTRED VERNACULAR**

**INTERACTION IN A WORLD OF INTERDEPENDENCE**

The world is becoming increasingly interconnected. This has led to a range of new challenges and opportunities for architecture. One challenge is how to design buildings that are both sustainable and responsive to their surroundings. Another challenge is how to design buildings that are both functional and aesthetically pleasing. A third challenge is how to design buildings that are both safe and comfortable. These challenges are complex and require a multidisciplinary approach. One way to approach these challenges is to focus on the interaction between people and their environment. This can be done by designing buildings that are both human centred and vernacular.

**METHODOLOGY**

One method for approaching these challenges is to use a multidisciplinary methodology. This methodology involves bringing together experts from different fields, such as architecture, engineering, and social science, to work together on a project. By doing this, it is possible to gain a better understanding of the needs and requirements of the project, and to develop more effective solutions. Another method for approaching these challenges is to use a participatory methodology. This involves involving the local community in the design process, and ensuring that their needs and requirements are taken into account. By doing this, it is possible to create buildings that are both functional and aesthetically pleasing, and that are also responsive to the local context.

**HUMAN CENTRED VERNACULAR**

Human centred vernacular refers to the design of buildings that are both functional and aesthetically pleasing, and that are also responsive to the local context. This means that the design of the building should be based on the needs and requirements of the people who will be using it. It should also be based on the local context, such as the climate, the terrain, and the culture. By doing this, it is possible to create buildings that are both functional and aesthetically pleasing, and that are also responsive to the local context.

**PROJECT FORWARD**

The project forward section of the report provides an overview of the key findings and recommendations of the research. It also provides an outline of the next steps for the project, including the development of a prototype building, the testing of the prototype, and the final design of the building. The project forward section also includes a summary of the key findings and recommendations of the research, and a summary of the next steps for the project.

**REFERENCES**

**HOW WILL GREEN SUCCEED IN A GREY WORLD?**

**VERNACULAR LANDSCAPES IN THE POST-INDUSTRIAL AGE**

**Human Bridges with Paul Beirne**

**INTRODUCTION**

For many years now, we have been told that the future is bright. We have been told that "green" will save us from environmental catastrophe. We have been told that green is good for the economy. We have been told that green is good for the planet. We have been told that green is good for our health. We have been told that green is good for our future. But what does green really mean? What does green really do? And what does green really mean for us? This article explores these questions and more, and provides some answers.

**THE VERNACULAR AS LINGUA FRANCA**

**Human Ware**

**EVERY MODERN STYLE HAS A JUNGLE COUNTERPART**

**Human Ware**

# DISCUSSIONS /

**THE VERNACULAR AS LINGUA FRANCA**

**ARTICLES /**

# OBJECTS /

**THE VERNACULAR AS LINGUA FRANCA**

**ARTICLES /**

**THE VERNACULAR AS LINGUA FRANCA**

**ARTICLES /**

**THE VERNACULAR AS LINGUA FRANCA**

**ARTICLES /**

**WITH APPENDICES**

**THE VERNACULAR AS LINGUA FRANCA**

**ARTICLES /**

**DoUC**

**SEARCH**

**MEMBER LOGIN**

**SUBSCRIPTIONS**



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