The Community Seaweed Depository is located in Acadia National park, a site of incredible natural beauty and historic tourism of both the indigenous Wabanaki peoples and other non-native vacationers. The site brought forward pertinent ideas of responsibility and custodianship of the natural environment. Realising that American society has traditionally looked to U.S. tribes to fulfil this role, the Community Seaweed Depository looks to learn from local Wabanaki traditions to not only propose an environment-safe building strategy, but also a more sustainable and intimate way to live within the natural environment: it’s cycles, moods and rhythms.

The Seaweed Depository dresses and undresses with the seasons, enabling users to tailor the thermal environment to the local climate and their unique needs. Internal and external insulation layers are maintained, rebuilt and recycled as needed, ensuring that the building is also committed to the conversion of cultural knowledge and craft.
The construction practices of the Wabanaki Birch Bark Canoe were used as a springboard to develop the tectonic principles. These time-honoured skills and practices would teach us how we may be able to create a building that was minimally damaging to the environment and meaningful to the community.
Detailed Section
Showing Winter Dressing

Summer Campus
Rendered by Jayson Kim
A conversation with the director of the Dodge YMCA in Brooklyn revealed that the primary means of easing the spatial and programmatic demands of an incredibly active and crowded YMCA is the endless labour of a team of non-descript, multi-use spaces. These ‘white box’ rooms were the negotiators of the often-unruly tensions between program and space, planning and chaos. Surprisingly, those spaces most ambivalent, and relaxed, about their use became the most valuable.

I conceived of the YMCA as the hard working ‘little white box’ of the city of New York.

This is a proposal for a Williamsburg YMCA which hopes to achieve its institutional promise of radically accommodability. I began a series of investigations on how spaces could collapse into one another to deliver the promise of a thoroughly flexible Y. The mechanism for achieving this flexibility became the pleat and the fold.
Above:
Closed Conservatory
- Day Care Pods

Left:
Closed Conservatory in Plan

Above:
Open Conservatory
- Walled Garden

Left:
Open Conservatory in Plan
Emerald Necklace
Theatre

A seemingly stochastic arrangement of walls litters the landscape, creating unexpected spaces to inhabit where the land meets Jamaica Pond. The faltering sun on the shortest day of the year give the walls new meaning, creating a series of three fifteen-minute spectacles, in celebration of the daylight and the cycles of time.

Hidden within the arrangement of walls are a family of three light corridors. The first corridor choreographs the sweeping light to illuminate a stairwell, drawing spectators into an underground tunnel. Here they await the sun to meet a hidden pool. With this meeting, a circular amphitheatre is awash with rippling light. As the light sweeps away, spectators follow it and find themselves confronted with the longest sunset of the year. They watch in their underground theatre for the sun to fade away. They emerge into the darkness, knowing that tomorrow brings brighter days.
Stochastic Misalignments

Model Photo
Light on Wall. Texture experiments.
The Hypar-Star

The Hypar-Star is a simple form described in two material states: the ruled surface in flip-milled wood, and the piano-wire lines that describe these surfaces. The geometry was created by eroding a platonic cube into a series of hyperbolic paraboloids.

The second iteration of the Hypar-Star attempted to create the same effect with just six extreme points, found at the ends of wooden dowels, which are held within a minimal surface by pure tension. The minimal surface was hand-knit with an elastic string, in the shape of a Christmas bauble, in other words: a sphere. The dowels were connected to the surface by clamping it between hexagonal brass machine screws and bolts at the ends.
The development of the Mothers’ Sanctum addresses the binary nature of the female identity, otherwise known as the ‘Madonna/Whore’ complex. This divisive perspective is most notably found during the transitional chapters of Maternity and Birth, which break the ‘cult of pure-womanhood’ and traditionally require women to transition from primary identity of Wife to Mother. However, modern birthing culture distances itself from visceral birth and the primal female body; and is firmly estranged from tradition and culture.

Mothers’ Sanctum looks to reengage ritual in the phenomenal act of visceral birth by designing a birthing retreat from first principles. The Sanctum is uniquely designed to cater to the primal body, allowing it to find natural pain relief. It also resonates with this profound rite of passage by reengaging with generations of mythology, superstition and tradition.

Mothers’ Sanctum

The Mother Chamber.

Right: Mother’s Cavern ft. Cupid’s Target, from ‘Les Amours des Dieux’, 1758 (Oil on Canvas) by Boucher, Francois (1703-70)
Above: The Sticks and Stones Bridge

Right: The Longhouse Gallery ft. Mother and Mother Stork

Above: Section Composition relationship between Longhouse (Mother’s Accommodation), Gallery Below, and Mothers’ Chambers

Mothers’ Chamber

Longhouse

Mothers’ Gallery

EXCAVATION LINE

Short Section
Composition of Mothers’ Chambers began with the development of a series of foundational areas based on historic and natural birth practices. There were assembled in plan and section to enable visceral birth.

Left: Longhouse Gallery
Right: Sense-making in Mother Chambers ft. The Priestess Delphi by John Collier

The Lychgate ft. Judgement of Paris by Peter Paul Reubens, 1577-1640
Strata

The brief for this third-year group project was written in collaboration with Poplar HARCA (Housing and Regeneration Community Association Ltd.) with a view to collect ideas for the design of a bridge to connect the East and West banks of the river Lea. This regeneration development is planned for 2020 in lieu of plans to create the Lea-way, a new pedestrian and cycling route along the East bank, in order to revitalise the riverside.

The ‘Strata’ bridge hopes to oppose the current condition found in Poplar, whose development has always focused on the provision of accommodation for the London ‘rat-race’. While the area is well-populated, it lacks life, serving to only provide perfunctory rest before work begins again. Strata is instead centred on the ‘play’ dimension of occupying space, drawing the residents of Poplar out to redefine how they inhabit their home.

Type: Academic (Group)

Typology: Bridge

Site: Poplar, London

Instructor: Daniel Wong

Award: University of Bath Arup Associates Award for Excellence in Design

Title Image: Elevational Model
Photo of Strata Bridge

Right Page: Top: Perspective Section of Strata Bridge
Bottom: Finished Strata Model in Laser cut Plywood.
APPROACH

TRANSFER

COMPOSE

ASCEND

CLOSE

Left: Character + Topography Concept Diagrams

Right: Corresponding Plan Sections

Right Page: Image: Strata Bridge by Day
Done in collaboration with T. Band.

Strata Bridge by Night, animated by Waterfall Installation by Lynn Dennison
Done in collaboration with T. Band
I took up knitting two years ago, fascinated by how my grandmother could create functional and beautiful items of clothing. She had always knitted perfunctorily, as all her friends had, making sure that her family were warm enough for even the most brutal English winters. I became interested in how this skill, which had exclusively been taught to women, had become part of the ‘cult of domestic-womanhood’ and thus been given little attention. I consequently decided to learn the craft in order to fully appreciate the skill of the women who came before me.

In learning to knit, I found written instructions puzzling and incompatible with the craft itself. Knitting charts, however, though abstract, were a far more appropriate mode of representation. By considering the fabric in this way, mapped on a cartesian grid, I drew parallels with Points, Lines and Planes mathematics. In this personal study I look to analyse how the knitted fabric adheres to the geometric principles of Points, Lines and Planes and how modes of representation communicate the relationship between these elements.
Traditional knitting instructions rely on a Cartesian grid to communicate the relationship between knit and purl stitches. This binary language forms the foundation of knitting, only deviated from to communicate interruption to a continuous plane.

In other words, traditional knitting charts map types of points (knit or purl) along a line (thread) in order to make a plane (knitted fabric).
The knitting chart not only describes the mechanism by which succeeding lines interlock (K-K,P-P,P-K joints) to make a plane, but also how planes may split and merge, twist and weave in order to make patterns like the basket weave.

A 3-Dimensional Plane

The knitted fabric therefore takes the system of points, lines and planes into the third dimension. Unlike the plane described by the knitting chart, the physical knitted fabric has both textural definition and its own structural properties. It is therefore interesting to consider the marriage of these systems and the product: mapping the points (stiches described by a binary of dots and blanks) and lines (yarn as rows on the grid) onto the plane of the pinched resulting fabric.

Physical Fabric
Ibu Ganjil or Lady Monsters is a collection of paintings that aims to both challenge and honour Indonesian oral tradition. It takes as its subjects, myth, urban legends and cautionary tales that have ‘unfairly’ resulted in female villains or monsters. The gouache paintings seek to reframe these stories, liberating the female figures from their involuntary depravity.

Nyai Roro Kidul
Queen of the South Sea// Gouache on Paper

Sundel Bolog
A mythical ghost from the archipelago which is a woman with beautiful long hair and a long white dress. The myth is closely linked to prostitutes, meaning a “prostitute with a hole in her”.

Ibu Ganjil