What is it about ruins which captivate our imagination? The half-brokenness, the uncovering, the allure of the past? Ruins are both a historic concern and a contemporary one. The construction of the new piazza surrounding Porta Asinaria in Rome brings this idea alive and does not treat ancient artifacts as museum pieces which are protected and isolated, rather as scenes to be incorporated into the visitor’s experience. The piazza will use elements which invoke the tantalizing mystery of the ruin without recreating or reconstructing it. Walkways with steps, walls of half-height, spaces half sunken will contribute to the dynamic experience of the expansive site.

The piazza draws on historical monuments and architecture of the site to create functions and spaces for the present. Most notably the new aqueduct, which runs from the eastern end of the site and culminates at the Piranesi Museum, is inspired by the river which ran through the site in Ancient Rome.

**Semester**
University of Waterloo, Fall 2015

**Instructor**
Lorenzo Pignatti

**Partner**
Mina Vedut
The semester began with a series of investigations into grids, arches, and vaults. Ideas about openness, enclosure, and adjacencies arose...

The exploration into these geometries and their resultant systems opened up the possibility of an expansive and continuous space that is non-hierarchical. We can imagine stitching together a tapestry of recreational, cultural, and community-oriented programs to create new programmatic adjacencies and relationships.

What are the possibilities when there is an overlapping of programs or an expansion of flexible programs? And on the hand, what does it mean to create division and privacy in a free space? What is the basis of creating enclosure and what are the limits?

The new Y of Coney Island takes into account the needs of the local demographic and the immediate context by providing spaces for all and becoming an opportunity for these differing groups to come together under one roof.

Semester: MIT Architecture Core II, Spring 2019

Above: Selected study models from the semester
Left: One of the entry points along the facade.
Contemporary art museums have the power to orient the public – they make visible what has been seen but not looked at. Yet behind the pristine white walls of these museums is also the power to conceal. The hermetic seal of the museum protects its art and artifacts from the external environment and at the same time, this function conceals the context, disconnecting ideas from the world. They are also capable of concealing the internal machinery of the museum – exchanges of capital and legitimacy.

How can architecture draw attention to these hidden mechanisms if not reveal them?

For the design of a new cultural institute conceived and funded by the EDP Foundation, the non-profit sector of the Portuguese electric utilities company, I am proposing a new institution called C.A.R.E., the Center for Art and Research in Energy.

CARE, as an institution, will foster and incubate research on energy and the environment. By positioning art and science closely together, CARE will draw connections and nurture exchanges to tackle the energy crisis which is profoundly social and cultural.

Furthermore, as the new entry point to the Electricity Museum, CARE seeks to expand beyond the static and instructional nature of the heritage museum. It will also provide the space much needed for the storage and access to EDP’s collection of historical documents and artifacts.

Semester: MIT Architecture Options, Spring 2020
Instructor: Florian Idenburg
The institution believes that in addition to typical public facing programs such as exhibition and education space, giving access to programs that reveal the processes of work which happen at the institution will give legibility to the mechanisms of the institution.
The title of this project refers to the type of ranches typically found around Argentina and its surrounding areas which are occupied and serviced by gauchos, the Argentinian cowboys. The gauchos who possess few material goods and live by simple rituals have made the unpredictable region of Patagonia their home. Inspired by the landscape of Patagonia and the mythical figure of the gaucho, this lodge seeks to provide a point of constance in an open and often harsh environment that is exhaustive to travelers and explorers through building materials and providing a feeling of comfort.

El Ranchero is composed from materials typically used in the region -- stone, cement plaster, and timber -- arranged into a hierarchy where the heaviest material confronts the prevalent wind while the lightest and most delicate material is tucked inside.

Semester: University of Waterloo, Summer 2016
Instructor: Andrew Levitt

Site Axonometric: A. Mate Room (Reception) B. Stable C. Paddock D. Archives E. Botanical Room F. Lodge, G. Spa & Bath

El Ranchero is constructed from a hierarchy of materials where the toughest materials sit on the exterior to protect the lighter materials enveloped on the interior.

i. Stone ii. Cement Plaster iii. Timber
In East Asian culture, it is a common ritual for someone who holds an unbearable secret to make a pilgrimage into the forest in order to let go of this burden. While on this journey, the wanderer will find a tree with a particular hollow which 'speaks to him', he will then speak into that hollow to expel the secret that has been burdening him. After this pilgrimage, the once troubled man is able to return back to his daily life with a renewed sense of life. This ritual can be found in many cultures and different times, and even now, the idea of retreating to nature to find oneself is commonplace.

This cabin is designed as a primer to prepare the occupant for inward reflections. A series of orchestrated experiences are placed along the vertical cabin as the inhabitant makes the descend. With each stage of descent, the inhabitant is brought deeper into their inner consciousness and to let go of all superficial thoughts, so that at the bottom, the inhabitant is ready to leave their burdens behind as they leave the cabin.

Semester University of Waterloo, Fall 2014
Instructor Maya Fryzylski
Partner Andrea Ng
Descend / Unconsciousness

Eat / Fulfillment

Confession

Orthographic drawings

At the exit of the structure, the ground slopes down naturally and leads towards a new trail. As the pilgrim travels downwards on the slope, looking back in hindsight produces a complete view of the structure. This view can only been seen on the bottom.
Nuit Blanche Toronto: Impressions

Nuit Blanche is a 12-hour event hosted in Toronto with the intention to make contemporary art accessible to a large audience. It seeks to inspire discourse about art and its place in public environment.

Toronto can be described as a large melting pot, a city that has been transformed and moulded through the impressions of its ever changing demographic. This public installation serves as a micro representation of Toronto’s diverse cultural identity. Users leave their impressions on the interactive plane as a manifestation of the city’s evolving identity.

Event: Nuit Blanche 2014
Team: Qi Chen, Andrea Ng, Alexandru Vîlcu, Mina Vedut

Materials: MDF Board, Cardboard tubes, Plywood base secured to ground
At 24 feet in length and 300 pounds in weight, ease of mobility and fast construction were our most important goals. On the day of the event, we had a limited timespan of only 4 hours for unloading, construction, and clean-up before the official opening of Nuit Blanche.

Impressions is made up of 3 modular pieces: 2 MDF boards in each module and 2 sets of crossstracings in between the MDFs. The pre-drilled MDFs are then mounted onto 2 tracks attached to the large baseboard for durability. The cardboard tubes were pre-capped on one end and the other end was capped on site.
A sakkah is an inherently paradoxical construction. A shelter designed to be impermanent and exposed to the elements, the sakkah is a reminder of the precarious and fragile life of our bodies within the world. In response to this charged premise, our proposal is a temporary structure that embraces the idea of openness by dissolving the idea of the wall itself. Composed of thousands of suspended thatch bundles, the continuous wall is at once exposed and protective, solid and transparent, fixed and always moving.

With its hairy, flaxen shell, the sakkah hides an intimate space of rest, one where celebrants may peek out while being obscured by sheaves of thatch. The interior is meant to provide a moment of multisensory repose. The sound and smell of the rippling thatch walls and the interplay of light and shadow underneath the bamboo ceiling allow visitors to reset from the auditory, olfactory, and visual stimuli of the outside world.

Event: Detroit Design Month, September 2019
Team: Edward Wang, Ronnie Kataki
As a researcher at MIT’s Self-Assembly Lab and local collaborators, we studied the geological changes of the Maldives brought on by the rising sea level. More imminent than ever, the Islands of the Maldives face the consumptive powers of the ocean and struggle to maintain land mass above water as the world’s lowest-lying country. In this research project, the MIT team investigated the ways by which we can passively rebuild the disappearing land mass of the Maldives by imagining static sculptures that would encourage sand accumulation onto the islands by exploiting the ocean’s wave energy (Fig. 2). This converts the consumptive powers of the ocean into a rebuilding opportunity for the island masses.

While the research is still on-going, I am currently the design lead for the exhibition of the Maldives research project at the Biennale in both constructing the narrative of the project for public viewing and the physical design of the exhibition.

Research Lead  
Skylar Tibbitts

Team  
Heather Nelson, Violetta J Jasiega

Duration  
January 2020, ongoing

Satellite images of sand accumulation process on the island of En’hoodhoofaafushi in the Maldives over a period of 7 months. (Photos from Planet.com)
BladeRunner is a collaborative research project between computer and math engineers, a concrete manufacturer, and a team of architects (3XN). The vision of this project is to revolutionize the construction industry by facilitating the production of advanced organic forms in architecture at price levels comparable to that of standard construction.

BladeRunner will introduce the use of robotic cells for rapid production of non-standard concrete molds in Expanded Polystyrene (EPS). In Danish as well as international construction the degree of architectonic projects with advanced geometry is rapidly growing and thus the demand for technologies that can enhance the architects’ design without increasing the construction budget.

As part of the architectural team, I assisted with the submission of RoboArch research paper as well as contributing to the study of various architectural forms to the compatibility of the technology of the hotblade and hotwire.

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<th>Position</th>
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<tbody>
<tr>
<td>Duration</td>
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<tr>
<td>Team</td>
<td>Kasper Guldager Jensen, Morten Norman Lund</td>
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<tr>
<td>Status</td>
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A. Analyze existing geometry  
B. Segmentation of geometry  
C. Cut foam - various arm movements