

FACES

OF
THE

MASONRYWORKS

DESIGN

COMPETITION

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54

JULY 2021

"The Poetry Of Masonry"

2021



**MASONRY
WORKS**
Council Of Ontario

**BRICK
BLOCK
STONE**

In collaboration with the University of Waterloo, School of Architecture, Masonry Works successfully culminated “The Poetry of Masonry” Design Competition late Spring. The competition which challenged students to develop an innovative conceptual masonry design which highlights the poetic nature of masonry wall systems was met with numerous submissions however, only three projects were awarded top spots. This publication will highlight said contestants and their projects.



James Clarke-Hicks

James Clarke-Hicks is currently completing his MARCH at the University of Waterloo School of Architecture. His professional background includes construction, material prototyping and landscape architecture. James has previously exhibited furniture and architectural prototypes at the Toronto Design Offsite Festival, IIDEX Woodshop, IDS Prototype Show, IDS Showroom, Canadian Clay and Glass Gallery, Come up to my Room and Cambridge Riverside Galleries. James' current work, in collaboration with Isabel Ochoa, explores lighting design through the material deformation of 3D printed architectural ceramics. Their research investigates novel geometries that emerge during the wet processing of stoneware and porcelain-proposing that matter, form and light function reciprocally with one another.



Isabel Ochoa

Isabel Ochoa is a current graduate student at the University of Waterloo School of Architecture, where she also completed her Bachelor of Architectural Studies. Isabel's ongoing Master's thesis, in collaboration with James Clarke-Hicks, explores how material deformation in architectural ceramics can be used to alter light scattering behaviour. Her research methodology involves integrating 3D printing with traditional ceramic manufacturing techniques. Isabel is interested in how materially responsive design offers us the opportunity to create new form and spatial languages. Isabel's professional background includes bespoke residential architecture, product design and custom interiors within design practices across Canada, the US and the UK. She has exhibited furniture and architectural product prototypes at the Toronto Design Offsite Festival, IIDEX Woodshop, the Interior Design Show Canada and the Canadian Clay and Glass Gallery.



Zaven Titizian

Zaven Titizian currently resides in Cambridge, Ontario, which is situated on the Haldimand Tract, land promised to the Six Nations and within the traditional territory of the Neutrals, the Anishinaabe, and the Haudenosaunee. He is a candidate for a master of architecture degree at the University of Waterloo, where he also completed a Bachelor of Architectural Studies. His current thesis research looks at the material politics of institutional archives, specifically as they relate to research involving diaspora and peripheral communities. He also has over 4 years of cumulative experience working in the architectural profession—notably on community and recreational facilities.



Hyjnid (Nidi) Metaj

Nidi is an architecture student currently finishing his final undergraduate term at the University of Waterloo School of Architecture where he will be starting his Master's in the fall. Throughout his co-ops, he has worked at architecture firms in New York, Toronto, and London, England on projects ranging from commercial global headquarters to single family residential designs. He has a passion for sustainable design using traditional building methods and materials such as wood and masonry.



SHEDDING WATER | MASONRY RAINSCREEN SYSTEM

Shedding Water focuses on the integration of water management into a continuous clay cladding system. Harkening to vernacular and historic uses of terra-cotta roof tiling, this cladding system is conceived as a rain screen on a supporting sub-structure that bridges roof and wall. Water is collected across an eave and is dispelled out where the roof line folds out into a spout. By exploring the limitations of form inherent in clay structures and the process of computer-aided printing, this project studies the movement of water over a sculpted surface. Each tile on the roof system is unique, making 3D printing an essential process in the manufacturing of components.

The project conceives of an architectural detail in terms of its function, materiality and form. It proposes we re-evaluate the design of conventional architectural details architects, designers and engineers may otherwise specify from a product catalogue. The design takes advantage of the material's plasticity and impermeability to concentrate the flow of water off of a single point, creating an architectural feature similar to that of a fountain or rain-chain.

The roof system is meant to be experienced differently depending on a person's proximity to the building envelope. When the full building envelope is in view, it might be perceived as a continuous skin. However, when a person approaches the building, subtleties in each tile component emerge and the eave takes on different sculptural qualities as water is pushed and pulled across its surface.



Figure 60 Typical detail

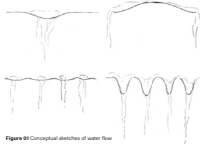


Figure 61 Conceptual sketches of water flow

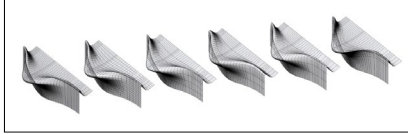


Figure 62 Parametric development of roof skin

Isabel Ochoa, James Clarke-Hicks, Zaven Titizian: *Shedding Water*

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The Forum | Dialogue and Collaboration Centre

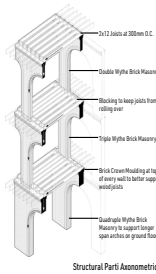


Forum

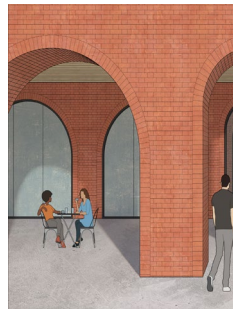
1. a place, meeting, or medium where ideas and views on a particular issue can be exchanged.

The Forum comprises of a series of solid brick walls that are the structural backbone of the project. Harkening back to ancient civic spaces, it uses the brick arch to connect paths, arcades, rooms, views, and people through the building.

Circulation through The Forum is accompanied by green breakout areas and gardens that act as a calming mediator between spaces. The planting in the interior gardens also acts to provide shade and privacy, while also filtering views between the arches.



Structural Parts Anatomical



Hyjnid Metaj: *The Forum*

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Listening to the Other

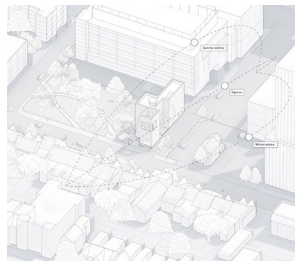
Located in downtown Toronto, this community centre seeks to provide a diverse range of spaces, a society of rooms, in which residents can come together to talk, argue, discuss and collaborate with the goal of building civic dialogue. It recognizes that dialogue and conflict resolution are not linear or universal processes. Different issues and people require different spaces to move between.

The goal of the project is to empathize with anyone by creating a multiplicity of spaces for groups or individuals to gather and reflect to address a wide range of issues while attaining the highest sustainability standards. Different parts of the project are better suited to some types of dialogue or users than others and the goal is to not prescribe use but to give the participants flexibility and choice as they inhabit and move between spaces.

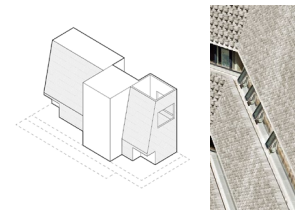
The choice of a brick rainscreen facade references the bay and gable victorian homes that define Baldwin Village and adds texture and warmth to the playful massing. Its neutral colour is welcoming, emphasizes the form of the building, and is intended to develop a patina over time. The human scale of the brick permits fewer, selectively placed fenestrations while maintaining a rich facade character to ensure a bird-safe building.

In addition to its aesthetic qualities and references to neighbourhood character, brick was chosen for its sustainable attributes. It is highly durable and can last hundreds of years, and can be disassembled and reclaimed for other projects if the building were to be demolished. It can also be locally sourced to reduce the embodied energy accrued through transporting materials.

Brick plays an essential role in the identity of the project and supports it in relating to the neighbourhood context, creating a welcoming street presence, aging gracefully, and enabling sustainable end-of-life options.



Mediating the urban context
The building's massing relates to the street rhythm and building heights of its neighbourhood context.



Neutral brick with light mortar relates to and distinguishes itself from the red brick victorian houses



Caroline Brodeur: *Listening to the Other*

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MATERIAL SYNTAX

3D PRINTED MASONRY
FACADE SYSTEMS

July 14 - September 15, 2021

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WATERLOO | ARCHITECTURE



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