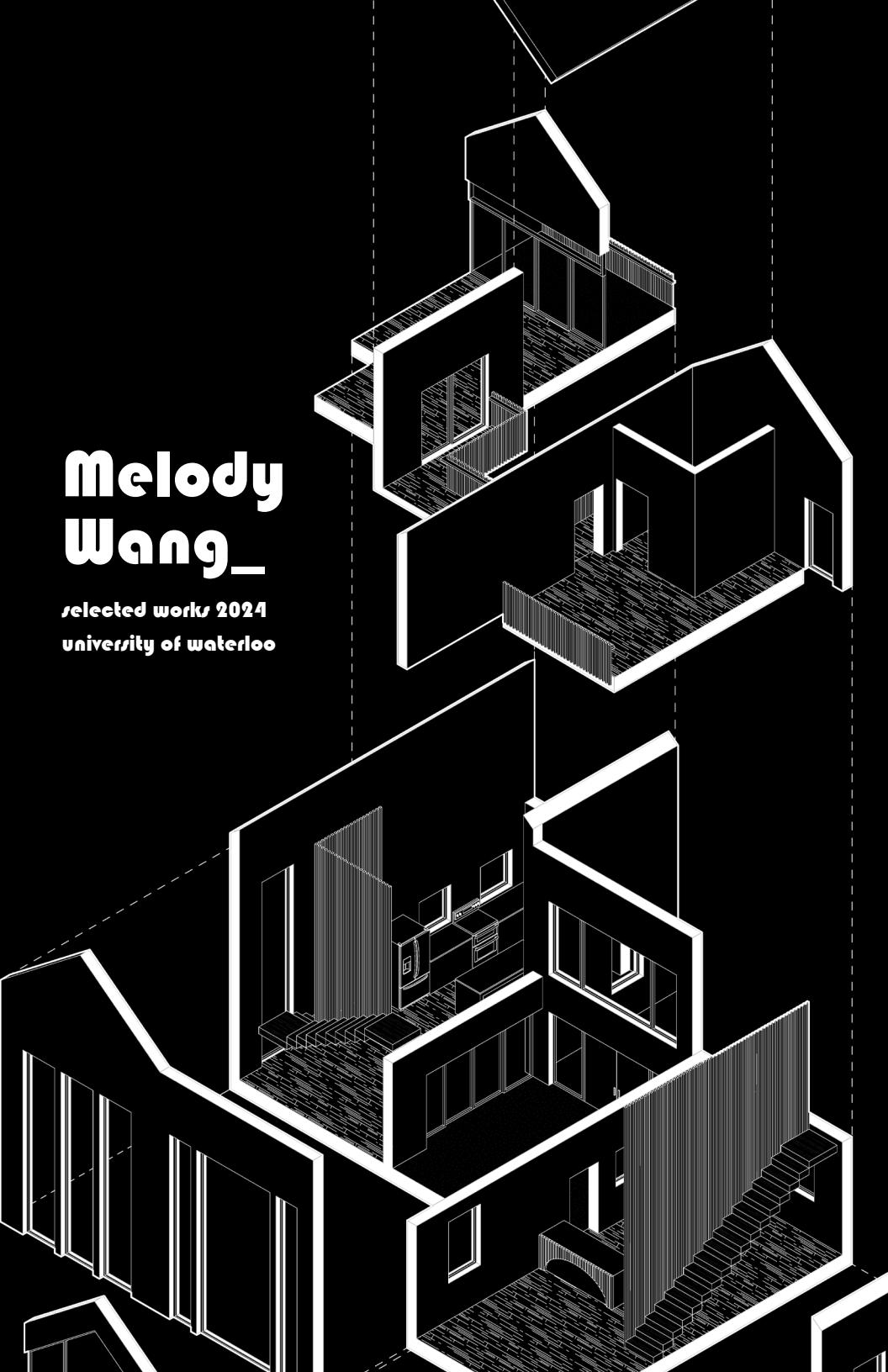


Melody Wang_

selected works 2024
university of waterloo



High quality version: https://issuu.com/melodysans8871/docs/architecture_portfolio_2024

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01

Canines are Friends Too



Course ARCH 192 1A Design Studio (Fall 2022)

Instructor(s) Rick Andrichetti, Haji Nakamura

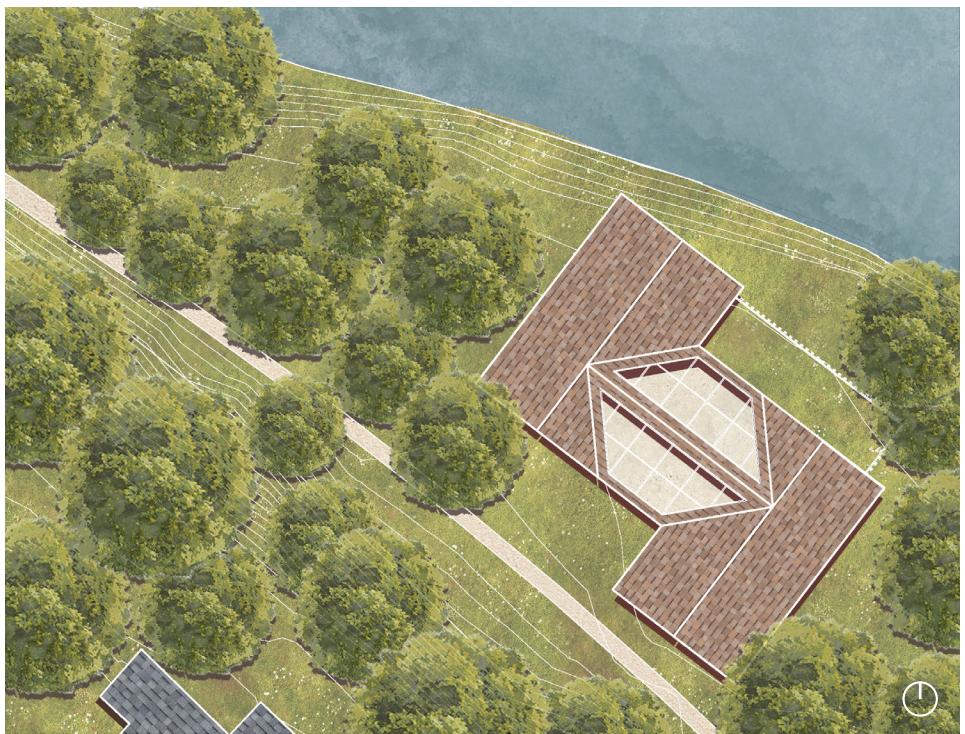
Location Cambridge, Ontario

Program Dog Daycare and Residence

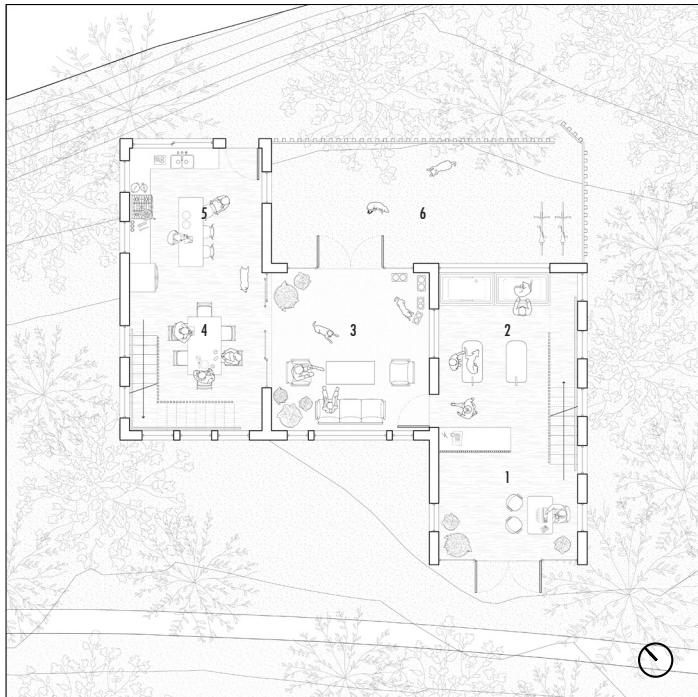
Media Adobe Photoshop, Illustrator, InDesign,
Rhinoceros 7, Enscape

Located within the Riverbluffs Park, this dog daycare and residence lies fully immersed in its natural surroundings, offering plenty of exterior and interior spaces for canines to roam and socialize. In the center lies an inner courtyard that seamlessly blends the daycare area with the human living space, fostering a harmonious coexistence between the two species.



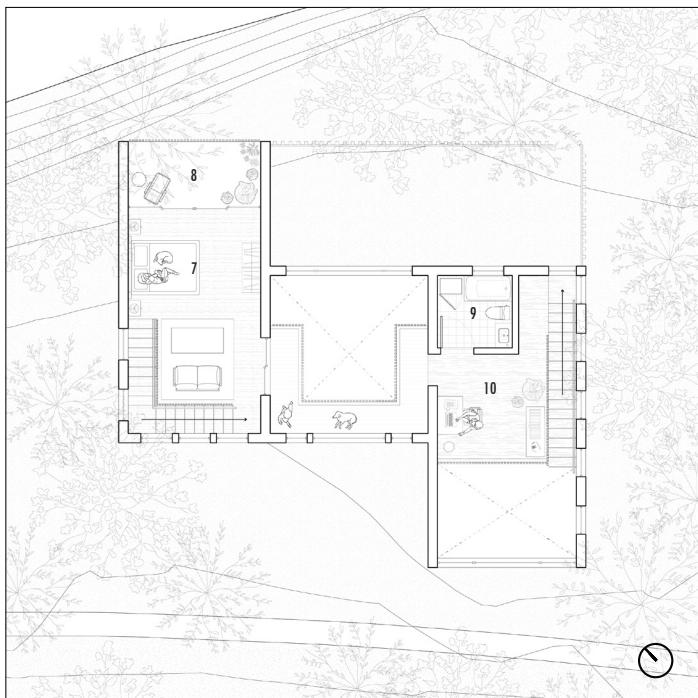


Site Plan



- 1 Reception
- 2 Grooming Salon
- 3 Living Area
- 4 Dining
- 5 Kitchen
- 6 Backyard

Ground Floor Plan



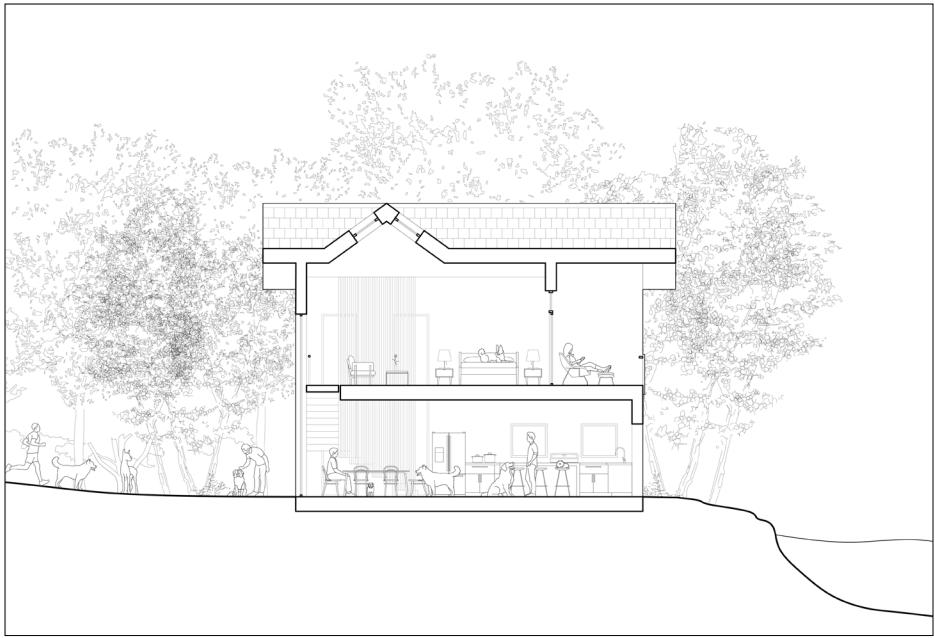
- 7 Bedroom
- 8 Balcony
- 9 Bathroom
- 10 Study Area

Second Floor Plan

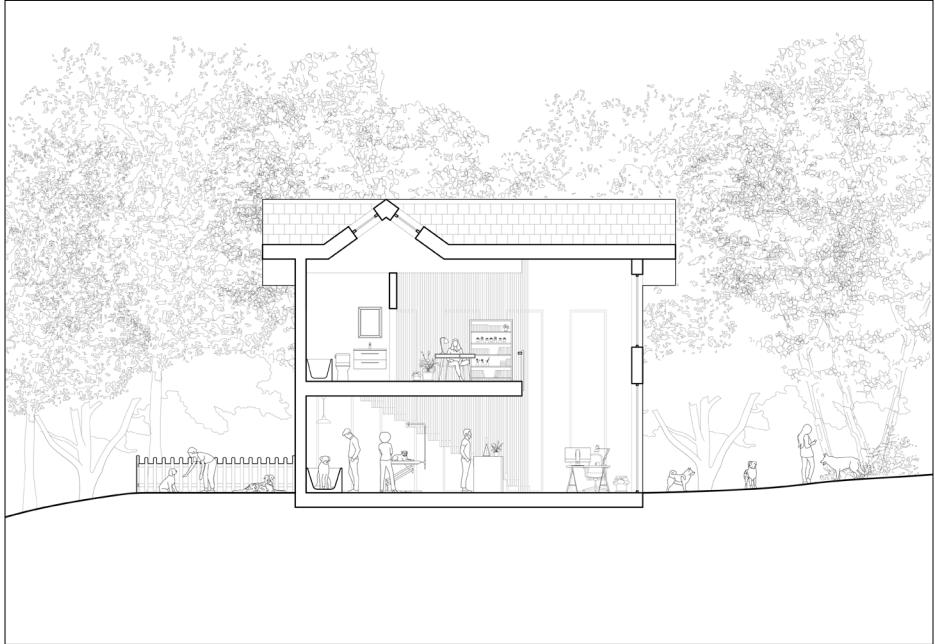


Perspective Section

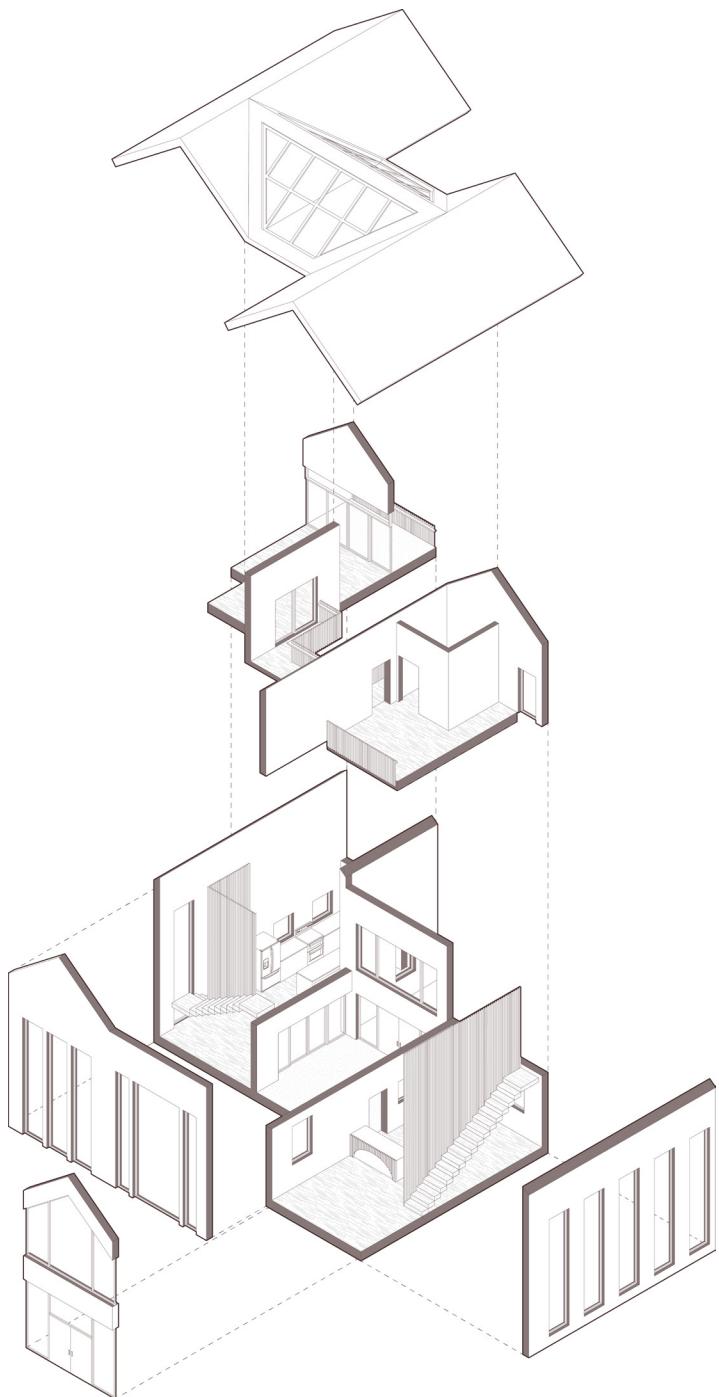




West-Facing Cross Section



East-Facing Cross Section



Exploded Axonometric

02

Refuge By The Fraser

Course ARCH 126 1B Environmental Design (Winter 2023)

Instructor(s) Anna Beznogova

Location Richmond, British Columbia

Program Urban Oasis

Media Adobe Photoshop, Illustrator, InDesign,
Rhinoceros 7, Enscape

Located in Richmond's Terra Nova Park is an riverside oasis where a botanist and birdwatcher reside. Fully immersed in their natural surroundings, the two frequently stroll through nearby farms and gardens, stopping ever so often to observe migratory birds that roam among the fauna. The house offers a stunning view of the Fraser River, which serves as both an energy source for heating and cooling the building, as well as a place to safely dispense greywater after it undergoes several stages of purification. With its proximity to the water, this location induces feelings of calm and peacefulness, which is why it was chosen as the ideal setting for this residence. These qualities make this riverside oasis a tranquil refuge for escaping the demands of urban life.

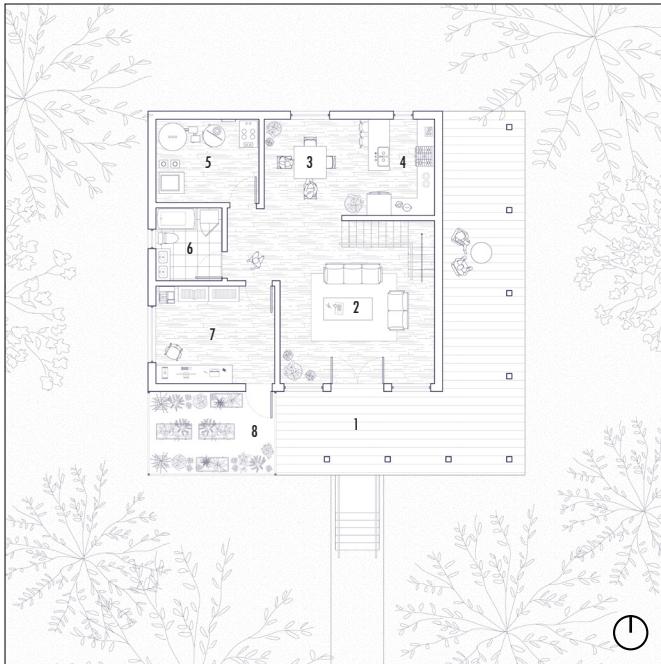






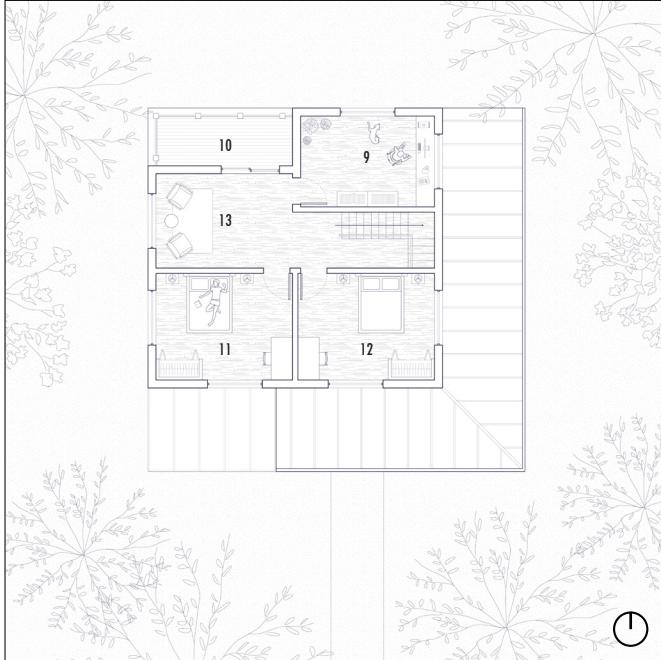
Site Plan

Over the past few years, British Columbia has encountered various climate hazards, including flooding, heat waves, and wildfires. Various design strategies were put into action to address the hazards posed by the changing climate. For instance, the use of thermowood as the exterior cladding of the building enhances its durability against severe weather and provides excellent thermal insulation to keep the interior warm during winter. Moreover, the house's fire-resistant components, such as the mineral wool, batt insulation, corrugated metal roof, and wood elements coated with fire retardant, ensure that it can withstand wildfires. In addition, a geoexchange heat pump can cool the house during heat waves by transferring heat between the ground and the building. Given the abundance of rainfall in the Lower Mainland, the rainwater harvesting system enables the collection and storage of rainwater for human use. To mitigate the risk of flooding, the entire building is elevated on stilts, always remaining above the floodline.



- 1 Patio
- 2 Living Area
- 3 Dining Area
- 4 Kitchen
- 5 Active Systems
- 6 Bathroom
- 7 Botanist's Study Room
- 8 Greenhouse

Ground Floor Plan



- 9 Birdwatcher's Study Room
- 10 Balcony
- 11 Birdwatcher's Bedroom
- 12 Botanist's Bedroom
- 13 Sitting Area

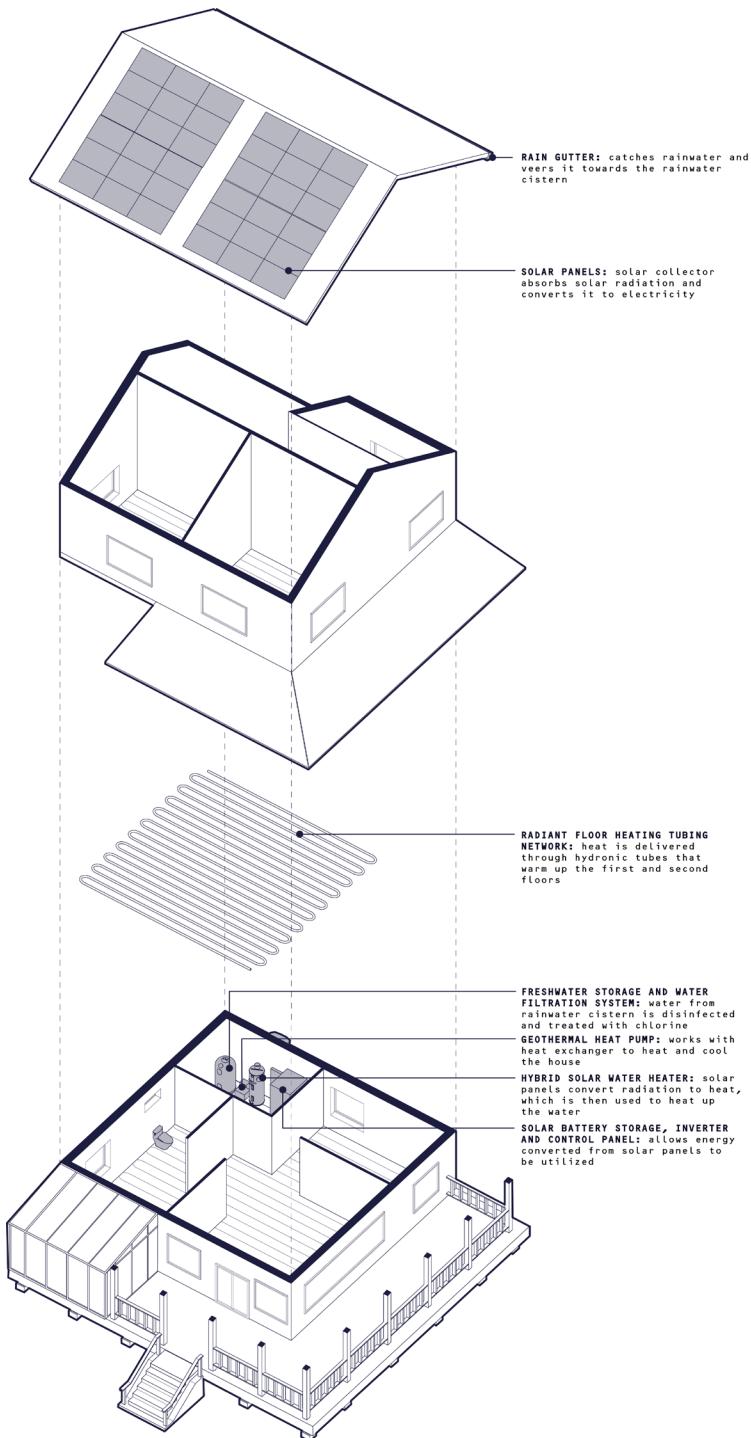
Second Floor Plan



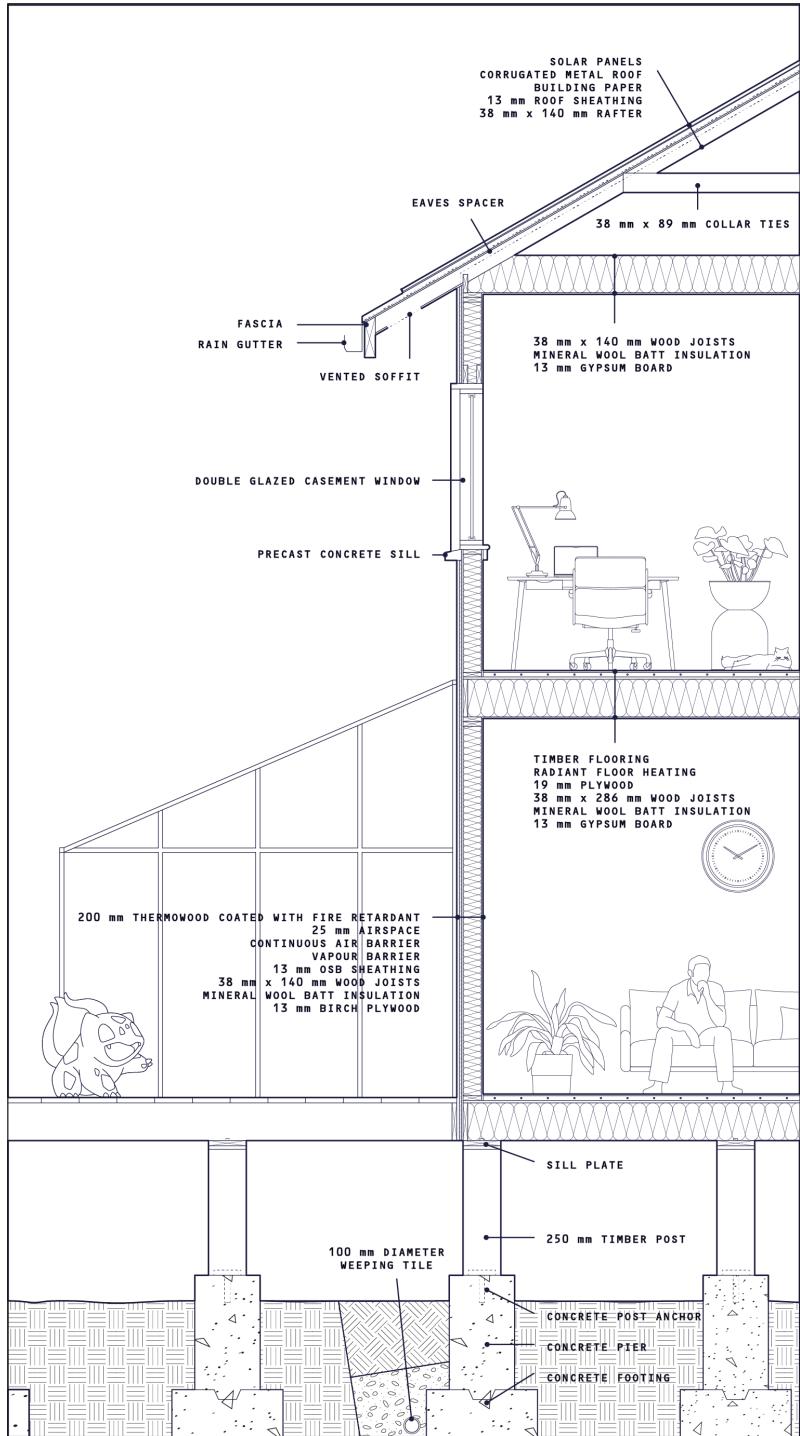


Interior Perspective

Exploded Axonometric

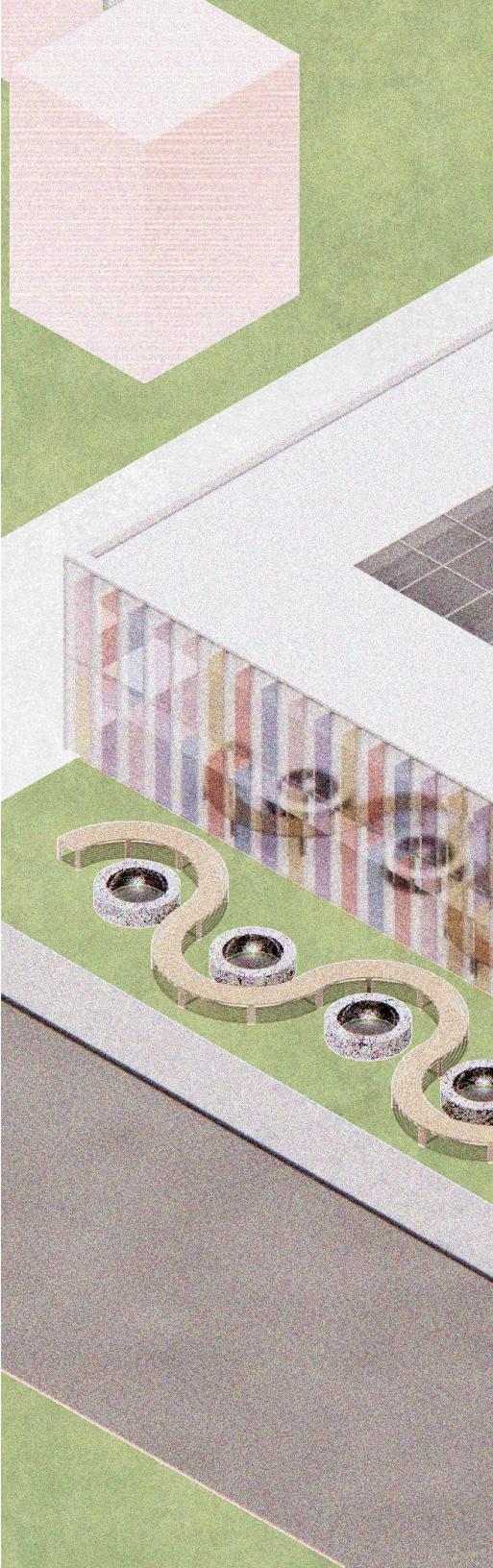


Detailed Wall Section



03

The Labyrinth Library



Course ARCH 193 1B Design Studio (Winter 2023)

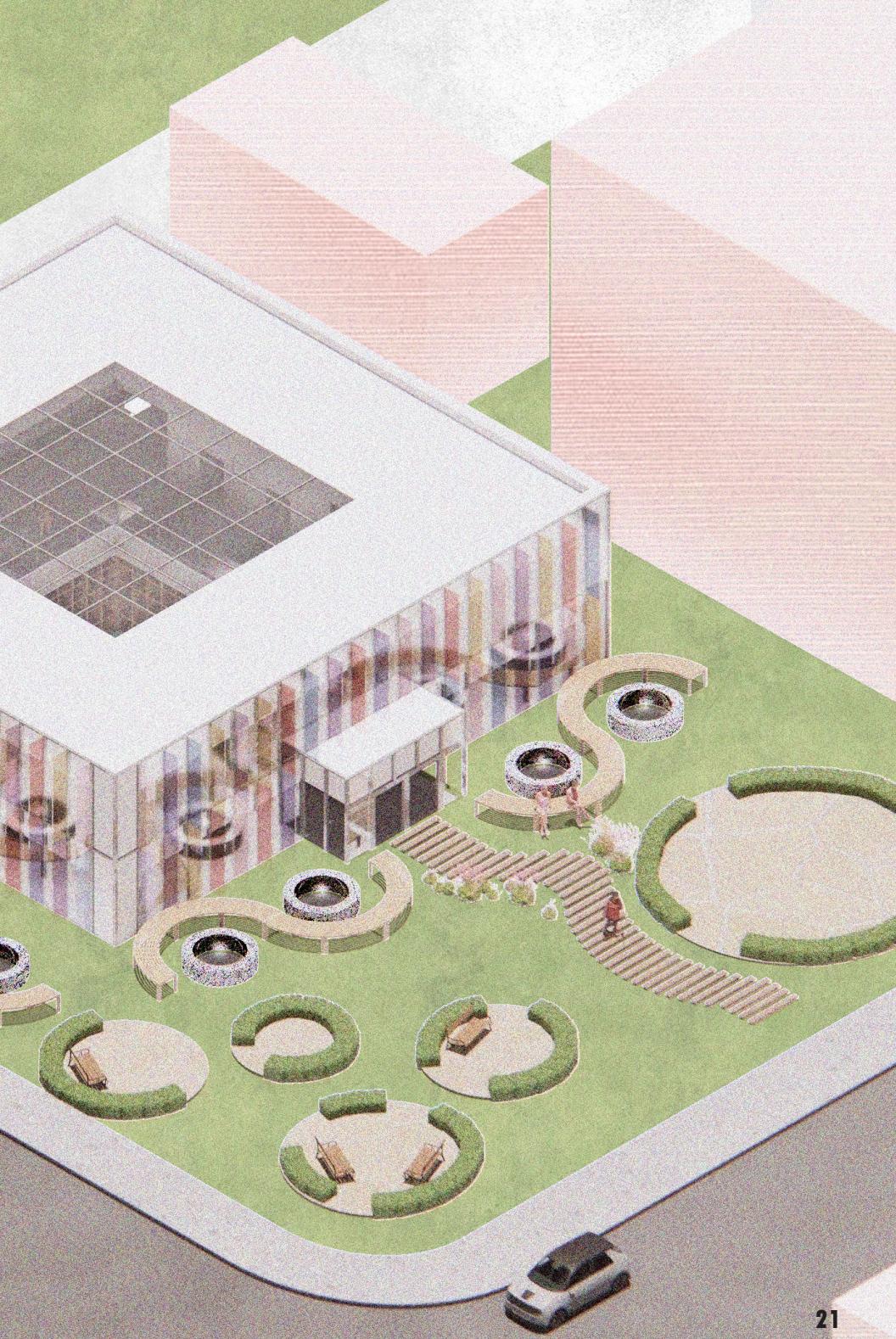
Instructor(s) James Clarke-Hicks, David Correa, Isabel Ochoa

Location Toronto, Ontario, Canada

Program Public Library

Media Adobe Photoshop, Illustrator, InDesign,
Rhinoceros 7, Enscape

Situated in the intersection between Thompson Street and Broadview Avenue, the Labyrinth Library acts as a mediator between the unique blend of surrounding private residences and public commercial institutions. The library employs a maze-like spatial arrangement, which beckons users to explore the space with a sense of curiosity as they navigate through a sea of books. The children's activity space lies at the heart of the library, which was strategically designed to maintain a visual connection with the rest of the library.





Site Plan



Ground Floor Plan

PROGRAM

- 1 Front Desk and Check Out**
- 2 Cafe**
- 3 Computer Lab**
- 4 Sitting Area**
- 5 Elevator**
- 6 Washroom**
- 7 Emergency Exit**
- 8 Storage Room**
- 9 Children Activity Area**
- 10 Children Reading Area**
- 11 Children Storytelling Area**
- 12 Meeting Spaces**
- 13 Study Areas**
- 14 Staff Meeting Room**

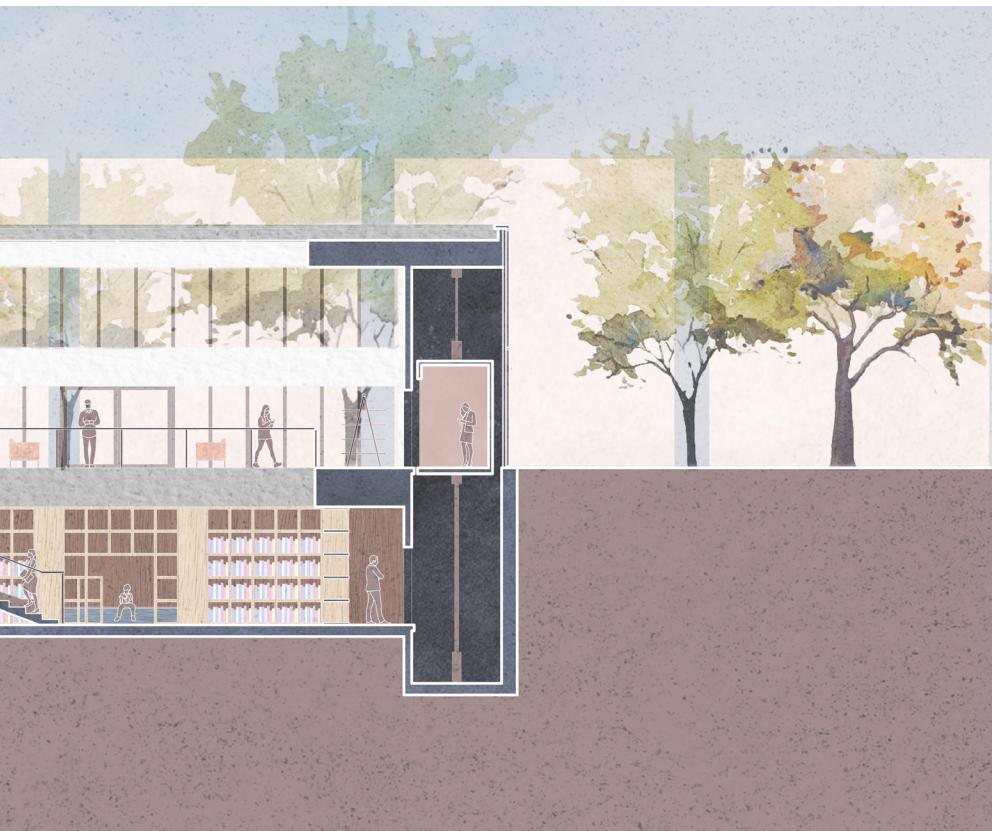


-1 Floor Plan





Longitudinal Section





Perspective Section



Other Works



ARCH 246 Storyboarding: San Carlo alle Quattro Fontane



Lingering Memories

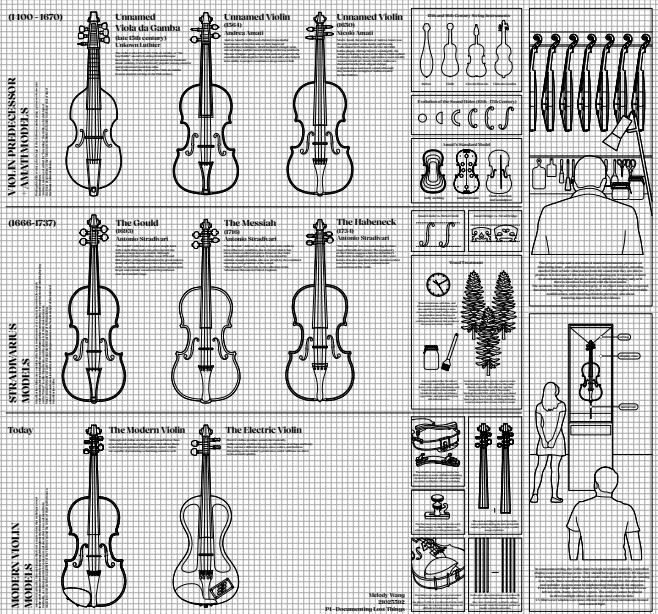
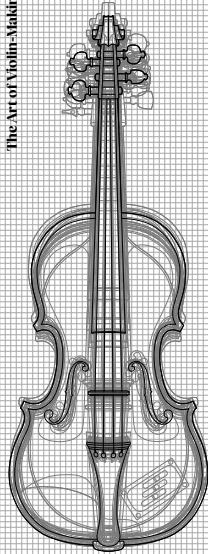
28



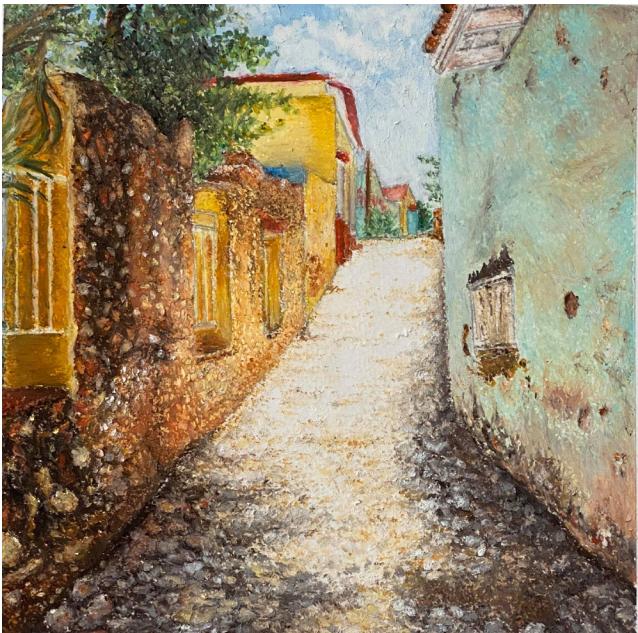
Cherish and Neglect

STRADIVARIUS

The Art of Violin Making



ARCH 292 Documenting Lost Things: The Stradivarius Violin



Glistening Cobblestone Street



Thank You!

Let's keep in touch:
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