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Indigenous and Non-Indigenous: Closing the Gap between Peoples and Cultures

2020 Thesis Submission

The relationship between Indigenous and Non-Indigenous peoples has been long-standing in existence and complex. In some cases, it has caused social stigma, social imbalance and lack of knowledge and information. Thus, this thesis is an attempt to design safe social spaces for both Indigenous and Non-Indigenous culture while restructuring the social imbalance of the East Village in Calgary.

The concept “Coming Together” is used here to bridge the gap between indigenous and non-indigenous. Urban theories including Urban Acupuncture by Jaime Lerner and Private/Public Interfaces by Kim Davey & Stephen Wood is used here as an aid to help me determine and identify the weak spots of the east village.

It is also important to mention here that I am a Filipino-Canadian person who is continually learning about the Indigenous culture. It has been a learning experience for me going through the processes of this project and I would like to take this opportunity to bring this forward to other people, indigenous or non-indigenous to bring awareness and to bring findings to urban cores. I believe that indigenous culture should not just be represented in museums, annual exhibitions and festivals but a whole year-round experiences in public spaces.
The site is located in Alberta, neighbouring British Columbia and Saskatchewan. According to Statistics Canada 2016, Alberta is 3rd in the largest aboriginal population, 3rd largest on the First nation population and 2nd largest for the Metis Population. The centre city is situated on the confluence of the Bow and Elbow river. These rivers have been important to people throughout history for many reasons. Past peoples, including First Nations and early settlers, extensively utilized rivers for travel and resources.
There are 4 factors to consider in the East Village: the growth of makeshift shelters, dominance of parking areas, scale of structures and space, and wayfinding. Homelessness is visible on the radius of Calgary Bow River Centre. The area has set up tents and people gathered around the bridge. East Village is dominated by the vast amount of parking spaces in the area which can cause unsafe environment and unfavorable place for the residents who are living close by. The development has caused buildings in the East Village to have overwhelming scale of buildings such as Calgary public library, Studio Bell, and the new 5 level parking called Platform.

This form of collecting is through space and people. The public space is collected through urban acupuncture and the condition of the site. The people are collected through acquiring data from both indigenous and non-indigenous people.

The important aspect of this strategy is to allow both Indigenous and Non-Indigenous to co-exist. The design of each public space was derived from the concept of “soundware” to emphasize the importance of listening.

The goal is to expand the idea of “Coming Together” for people to share outside of East Village. This is a way to challenge other urban cities in this matter. In order to end the geographic isolation, it needs to be present in urban cores.
Through the use of Urban Acupuncures by Jaime Lerner, this helped me “punctuate” the weak spots of the area. By stimulating these spaces, this will activate the “Gathering Together”. This allows people to gather and form from one another in order to understand both cultures.

“Changes to a community don’t need to be large-scale and expensive to have a transformative impact. In fact, one block, park, or a single person can have an immediate effect on life in the surrounding city.”

- Jaime Lerner
Sudbury Emergence
Re-Greening Extension

2019 Sudbury 2050 Competition
Team: Purvangi Patel / Naiz Mubarak / Sagib Mansoor / Stacy Floresco

Vision towards regenerative architecture

Our vision is to use regenerative architecture as an approach towards our growing housing culture. This new city of Sudbury unfortunately faces the increasing demographic growth of the city, which can
create an unworkable situation. In order to come up with solutions, the team решил to focus on the
relationship between the historical and natural experience of the city and its urban development.
Between existing urban and rural landscapes, this concept involves social and cultural
connectivity to further regenerative building typologies.

These three concepts tied together through regenerative architecture will create a new opportunity for
growth within the city as a thriving multicultural community that addresses the environmental
wilderness and recognizes the land and its history for future generations, with relation to smart
technological advancements.
Landfill: Waste Management + Resource Collection

As Sudbury continues to add more and more waste to its already large landfill site every year, it directly impacts the residents to how much waste they can discard weekly with that being a garbage bag per household. This has created a need for a new landfill facility to be constructed by the City of Sudbury which is estimated to cost around $40 - $50 million. With this in mind, our proposal for Sudbury 2050 is to create a new type of waste management facility in response to the City's plan to construct a new landfill. Rather than creating a new landfill on a new location as per the City's plan, which requires more area of land to be cleared in order to host another landfill, our proposal uses the current site to deal with the existing and future waste. This eliminates the need to destroy a new piece of land for a landfill that will eventually fill up and lead to the need of another landfill site for future waste to be accumulated.

Our new landfill will be different than any other ever created, as it is not designed to collect and accumulate waste to be used, but rather use the waste to extract raw material and collect energy to be fed into the city grid. The landfill is integrated with Sudbury's existing waste management system of sorting the recyclables and composting through aerobic process. The waste is collected and placed in the garbage pits which are connected to the existing methane gas collecting pipes running under the site. As the waste decomposes in these pits, it releases methane gas through an anaerobic process which is collected by these pipes and placed in a tank and then to be used as a source energy. The waste is then transported into the incinerator chimney stacks, which then incinerate the waste to generate energy which is then fed into the city power grid. After the incineration process, the raw material, like plastics, metals and aggregate is left behind which is sorted through use of weight, magnet and filters and placed in designated tanks, ready to be used again as a recycled resource. This landfill takes on the form of the chimney stacks to preserves the Sudbury's historical mining past and converting landfills into the future mines of the city.
**Streetscape: Stormwater + Sewage Water Treatment**

The streetscape of a typical city has not changed since the last century. The streets include a road for automobiles, a sidewalk for pedestrians and under it all sewage and storm water pipes that transport water to the nearest body of water or water treatment facility. This system has proven to be quite insufficient especially in cities that get heavy rain and snow fall with Sudbury being one of them. These systems lead to flooding and changes in ecological processes due to contaminants and populations entering the waterways. The solution is to have this water treated before releasing it back through a water treatment facility, however, this process is very costly and not all water gets treated during the heavy rains due to how much water can be treated before overloading the system.

This presented us with an opportunity to re-thinking the streetscapes and unused spaces, such as parking lots, within the downtown core of Sudbury. By introducing storm water collection planters around the streets which separate the road from the pedestrian sidewalk, we create a biological filter that breakdowns the pollutants in the water through biological processes. Furthermore, these planters become small retention ponds which hold and purify water during the heavy rainfalls before releasing it into a body of water. Similarly, certain unused parking lots around the city get converted into green spaces, which consist of reed beds, which get connected to the existing underground sewage pipe through a primary treatment unit under the parking lots.

Sewage from the city sewage pipe is given primary treatment in the underground tank and then circulated through the series of reed beds (Sewage water is not accessible at the surface). Within these wetlands, microorganisms break down the contaminant and then the water gets a last treatment from a trickle and sand filter before releasing the water into the existing storm water pipe. These two biological processes of treating water, greatly reduces the water treated at a the water treatment facility, untreated water entering the waterways, and reduces urban sprawl by converting underutilized spaces into green spaces that public can enjoy.
Bio-Swale: Flood Control + Land Rehabilitation

The rail yard in Sudbury downtown is an industrial icon that had a very strong functional value at the time it was constructed. However, currently not in use it is a wasted space that can present a new opportunity that can provide a new functional and cultural value to the City of Sudbury. With the Junction Creek location near the rail yard prone to year-round flooding that causes issues to the residents living in the area, a solution is required and in this context, the rail yard becomes the solution. Due to the rail yard’s industrial past, the land on which it exists is heavily contaminated. With the Re-greening of Sudbury being such a big movement that is restoring Sudbury’s ecology, we proposed an intervention that feeds into the restoration of Sudbury, by allowing the floods from the Junction Creek to be directed to the rail yard and converting it into a Bio-swale. The Bio-swale retains the floods during the heavy rainfalls which prevent any damage to the private properties but also rehabilitates the contaminated rail yard land through natural ecological processes. Furthermore, it plays a large part during all-year-round in purifying the water from the Junction Creek naturally before releasing it back. Lastly, some of the train rail tracks were used to create pathways and piers that allow the public to be part of this rehabilitation process and become one with the history and the nature of the land. The pathways and piers sit on the existing structure of the railway into, creating spaces such as stages that will host events and concerts.

Plants: Our Regenerative approach towards building typologies includes focusing on interventions that allow for more plant and produce to help build more community involvement and help source food locally. Retrofitting existing structures with natural materials, such as wood creates a dynamic visual dialogue between the history and culture of Sudbury adding more character to the current streetscape. Lastly, food production through the green roofs and community gardens to promote local food sourcing and using more renewable-energy resources within both retrofit and new developments will work towards our goal of practicing more net-zero homes and buildings for the future.

The integration of more green spaces will allow for more interaction and community building opportunities among those residing in and outside of the city. Our interventions help create opportunities for the public to learn about their land and create deeper connections with their surroundings. Creating a strong sense of community for the City of Sudbury by using a mix of locally resources materials and integrating pathways that enhance social interaction with maximum integration of the existing landscapes. Incorporating the land’s history and through the narratives of the Indigenous culture and communities to raise awareness and knowledge among newcomers and existing residents towards building a stronger future for Sudbury.
The Greater City of Melbourne covers over 9000 sq. km, it consists of 31 Municipalities, one of them being the Darebin City Council. The City of Darebin is known for its vibrant and diverse community due to its landmark called Preston Market. This market opened in 1970 and it is still continually operating to this day. Many residents, traders, and visitors Preston is considered to be the heart of the community as it neighbors houses number of markets, small shops, restaurants, cafe, street stalls and broad range of fresh and ready to eat food.

The goal for this project is to analyze the strengths and weaknesses and to understand what the future of the Council would look like in 2050.
Topics:
- Transportation
- Urban Climate
- Aesthetic and Appeal
- Diversity and Inclusion

Vision Statement:
Efficient and safe access to Preston Market
Implement coverage to reduce urban heat
Upgrade its visual character
Diverse amenities

The analysis was done through Kim, Davey and Stephen Wood’s Public/Private Interfaces to help us determine and pin-point on the map the strengths and weaknesses of the community. There are five primary interface types that was articulated according to criteria of access, walkable, transparency and mode of access.

Proposals:

Transportation:
- Demand for efficient and safe access to Preston Market by updating bus and tram stops and managing safe pedestrian.
- Mixed semi-lattice and tree-like structure
- Better transport service provision connecting users to Preston Market

Environmental Quality:
Urban heat is a major issue for cities and townships to overcome. Urban heat is the intensification of heat in an urban space, usually heavily influenced by man-made designs. This is evident by the over-dominance of concrete grounds that is surrounded in Preston Market. By implementing elements such as canopies, green spaces with water sensitive urban design, this can create habitable yet vibrant to the community.

Aesthetic and Appeal:
- New & Inviting Entry Plaza
- Green Spaces to reduce the ‘Non-Place Elements’
- Communal Areas Park Benches, Public Square, Active Spaces (RPS Group 2019)
- Re-Design of Facades: Inclusion of a Mural Representative of Darebin, Use of Quality & Sustainable Materials, Maintain Character

Diversity & Inclusion:
- Expand Arts and cultural events opportunities
- Growing demand for accessible services and facilities

[Map and images on the page]
Modifying Lanes
at victoria market

2021 Revision
2020 RMIT SLAB Competition

In the midst of Covid-19, the goal for this project is to create a safe and healthy space, specifically to enable individuals & commuters to interact while implementing limitations to prevent the growth of COVID-19 cases. Modifying Lanes focuses on redirecting traffic directions to not only activate streets for people but to modify it according to surroundings and people. The site is located between Elizabeth St and Victoria St. There you will find the largest open air market called Queen Victoria Market.
In most cases, lanes are typically redesigned due to inactivity and its impermeable facades. The Modifying Lanes objective is: 1. to modify lanes that will prioritize the needs of people and surroundings and 2. to prioritize recreation rather than vehicles. The process includes analyzing the traffic directions and relocating it. By simply adjusting the flow of the traffic, it can then refocus to the main objectives. In this case, the Narrow street of Elizabeth street is ideal for this project as it is congested by vehicles and trams.