

MONTREAL

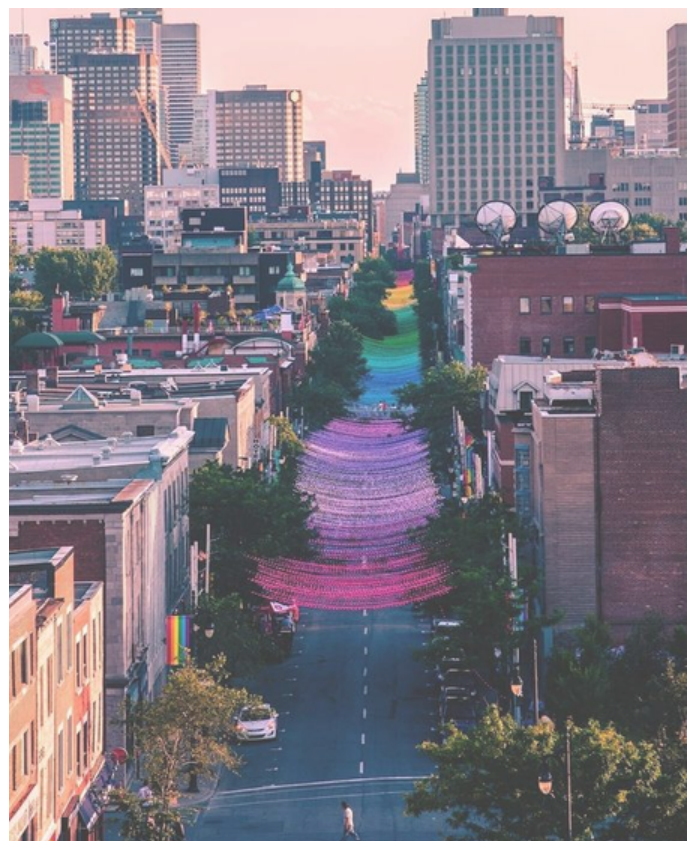
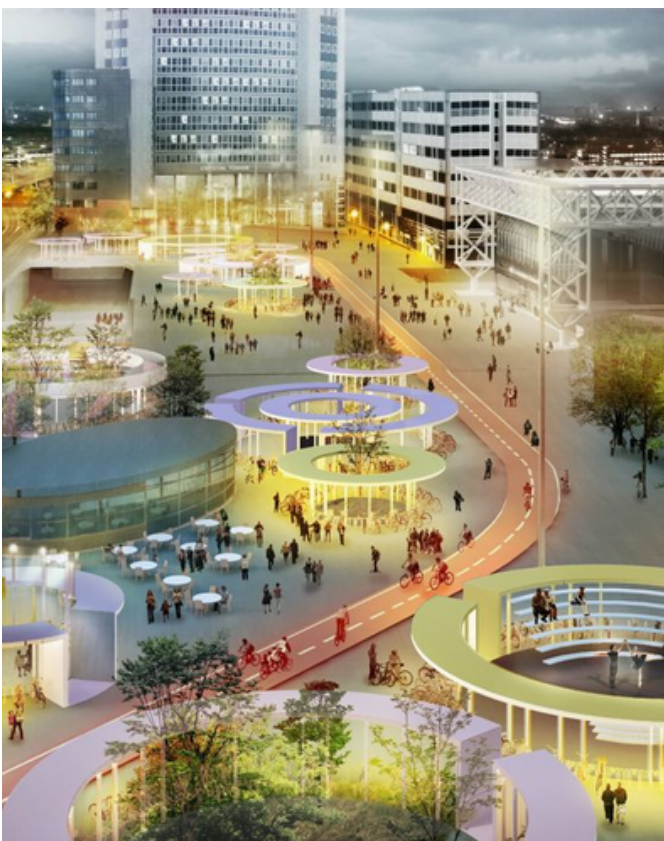
Montreal Street
Profile

STREET DESIGN CHALLENGE

STREET PROFILE FROM
MONTREAL, CANADA.

IDENTIFICATION OF THE PROBLEM TO SOLVE.

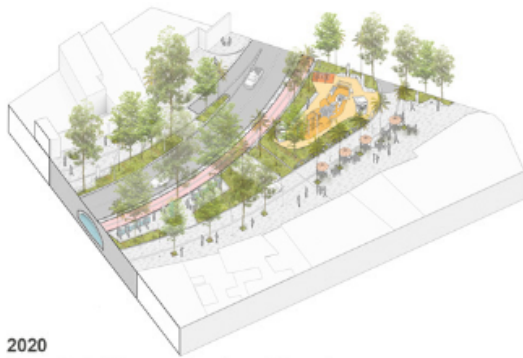
"The Rue Jean-Talon East faces the challenge of achieving a perfect balance between commercial and residential aspects, taking into account the natural conditions of the area. With its growing commercial development, there is a need to effectively integrate commercial interests and the quality of life of local residents. Additionally, the region's climatic conditions, including cold and snowy winters, present challenges in maintaining an active and thriving community. How can commercial expansion be reconciled with the preservation of a pleasant residential environment, considering the natural characteristics of the area on Rue Jean-Talon East?"



ANALOGOUS EXAMPLES.



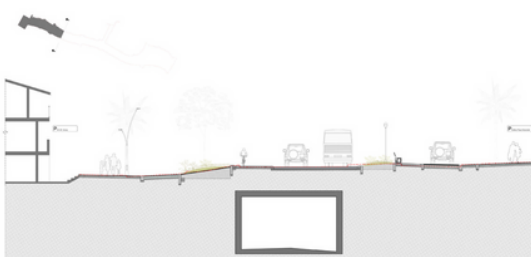
BAQ 2020
PREMIO PANAMERICANO | **Intervention in public and/or collective space.**
GANADOR BAQ 2020
COLOMBIA



2020
Proyecto de intervención urbana integral



Cortes



ARCHITECTURAL PROJECT:

- The urban promenade La Playa is a long corridor located in the city center of Medellín, stretching from the Pablo Tobón Uribe Theater to Oriental Avenue.
- At the urban and mobility level, the project is based on a proposal for Shared Streets.
- With this concept, the aim is to consolidate the sidewalks of the project as a large unified public space where all forms of mobility (pedestrian and vehicular) are integrated under the same dynamics of movement. None takes precedence over the other; therefore, all share the same rights and responsibilities.
- The project has parameters of sequential or progressive design.
- In summary, the Urban Promenade La Playa is an extensive landscape to be walked, enjoying the exuberance of the tropics, the sun and shadows, the gardens, and the interaction among diverse people.

IDENTIFICATION OF THE GUIDING ELEMENTS OF THE COMPOSITION OF THE ARCHITECTURAL PROJECT.



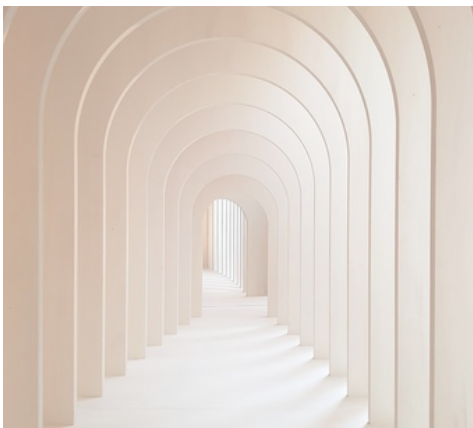
Symmetry

Reflection of shared shapes or angles across a central line or point called the axis.



Balance

Balanced distribution of each element, creating a link between them.



Intersection

Intersection of two lines, two surfaces, or two solids that mutually intersect, resulting in a point, a line, and a surface, respectively.



Volumetrics

To play with the forms while maintaining a game that provides shelter.

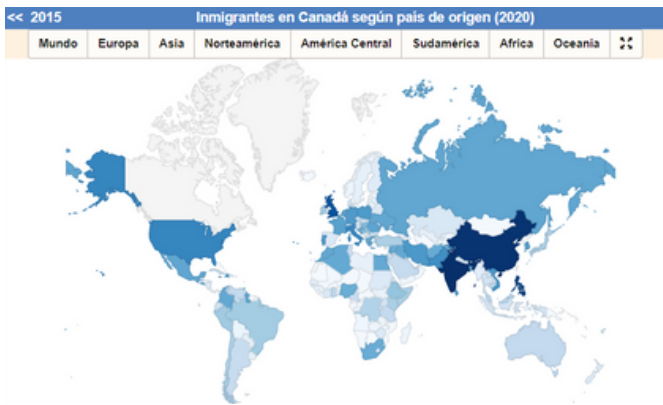
FOUNDATION OF USER NEEDS.

1. **Pedestrian Safety**: The need to create a safe environment for pedestrians is paramount. This includes the installation of pedestrian crossings, adequate signage and traffic control measures that reduce the risk of accidents.
2. **Universal Accessibility**: Ensuring that the street is accessible for people with disabilities is a key social need. Ramps, accessible crosswalks, and barrier-free sidewalks are essential.
3. **Local commerce and services**: Encouraging the presence of small businesses and services on the street can meet the needs of residents and visitors, in addition to revitalizing the local economy.
- 4 **Sustainable mobility**: Encouraging the use of public transport, bicycles and walking can reduce dependence on motorized vehicles and improve air quality.

Satisfying these social needs of the architectural user on a street with limited space and pedestrian circulation can transform it into a more livable, attractive and functional place for the community.



FUNDAMENTAL USER CONDITIONS.



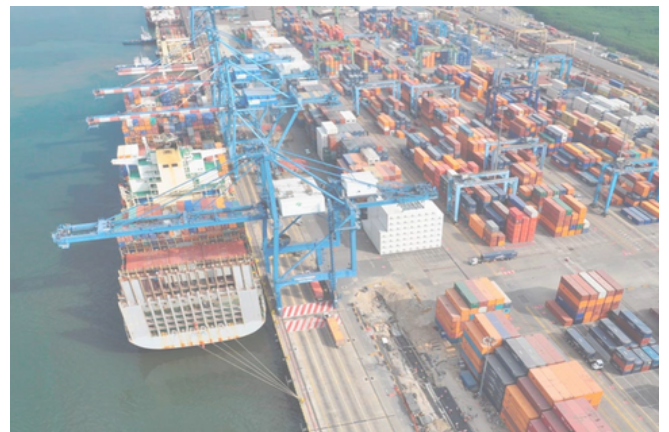
COMMERCIAL

The service sector dominates the Canadian economy, accounting for 66.9% of GDP and employing more than 79% of the workforce (the largest employer is the retail trade sector, which employs about 12% of the workforce). labor of the country, and the commercial services sector).



MIGRATION

Canada has, according to the latest data published by the UN, 1,292,329 emigrants, which represents 3.4% of Canada's population. If we compare it with the rest of the countries we see that it has an average percentage of emigrants, since it is in 51st place of the 195 in the ranking of emigrants.

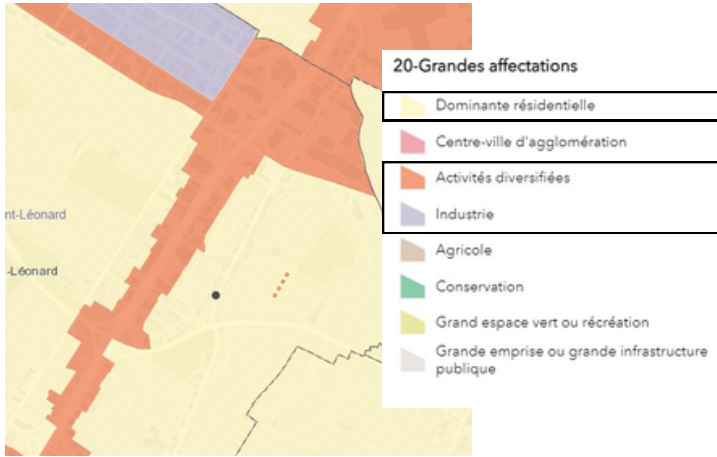


MULTICULTURAL

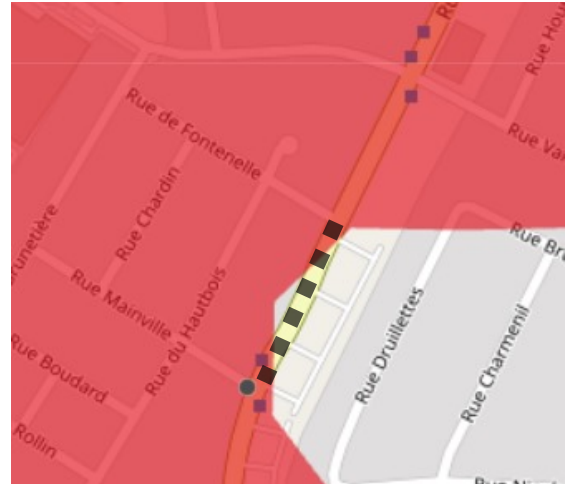
Listen The city of Montreal, in Canada, is one of the most cosmopolitan cities in the world. A little more than 24 percent of its population is immigrants and comes from 220 places on the planet. Those almost 914,000 immigrants residing in Montreal represent 166 nationalities and speak more than 110 different languages.

ANALYSIS OF THE NATURAL PHYSICAL ENVIRONMENT.

SOIL TYPE



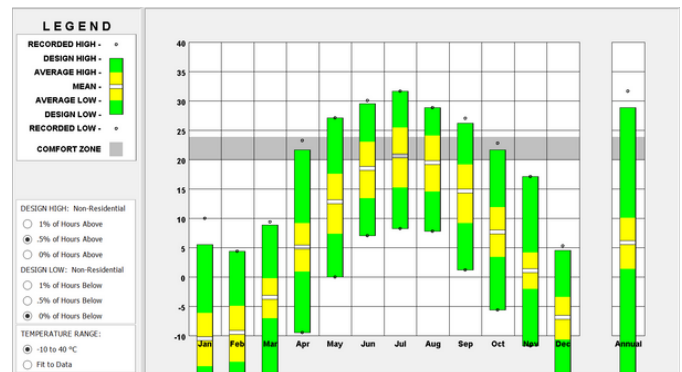
HEAT ISLANDS



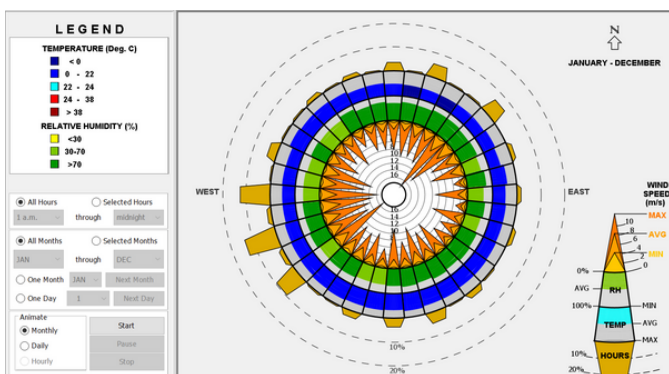
SUNSHINE



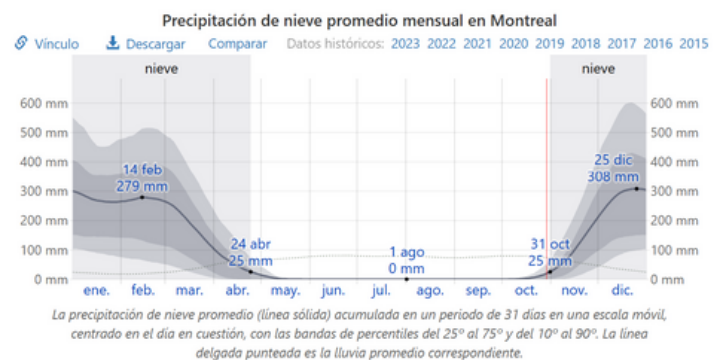
TEMPERATURE



PREVAILING WINDS



PRECIPITATION



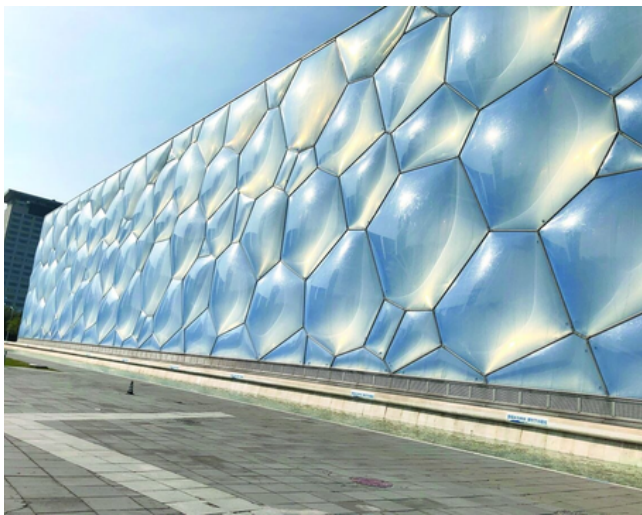
In Montreal, summers are long and hot; Winters are freezing, snowy and windy and it is partly cloudy all year round. Over the course of the year, the temperature generally varies from -13°C to 26°C and rarely drops below -23°C or rises above 30°C.

ANALYSIS OF BIOCLIMATIC AND SUSTAINABLE VALUE.

ETHYLENE TETRAFLUOROETHYLENE (ETFE)

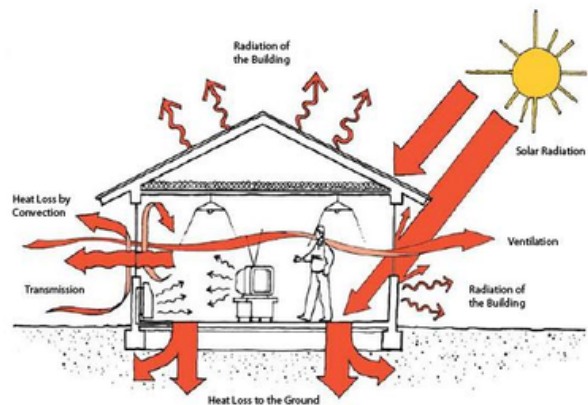
ETFE is known as a type of thermostable polymer with great resistance to heat, corrosion and UV rays. The acronym ETFE is the acronym for Ethylene-TetraFluoroEthylene, the material being a copolymer of this molecule.

There is colored ETFE and there are even combinations with flexible solar panels and also consider that it should not cover the entire area or at least have perforations due to the snow issue.



PASSIVE DESIGN

Passive design is a method used in architecture in order to obtain buildings that achieve their environmental conditioning through natural procedures. Using the sun, the breezes and winds, the characteristics of the construction materials, the orientation, among others.



MATERIALS



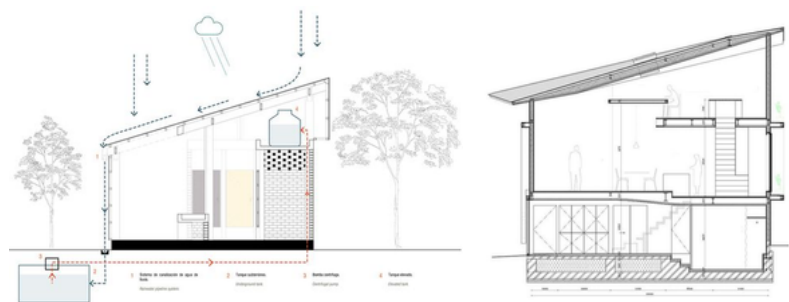
WOOD



ETFE



Water roof to avoid snow drifts



CONCEPT.

The concept is based on thermal inertia, which is the ability of a material to store heat. ETFE structures among others are proposed. The proposed materials have the purpose of storing heat that allows maintaining a constant temperature for long periods of time, creating microclimates in pedestrian circulations and voids, bringing together the commercial and residential through an architectural and urban design, maximizing thermal efficiency. and addressing local weather conditions.

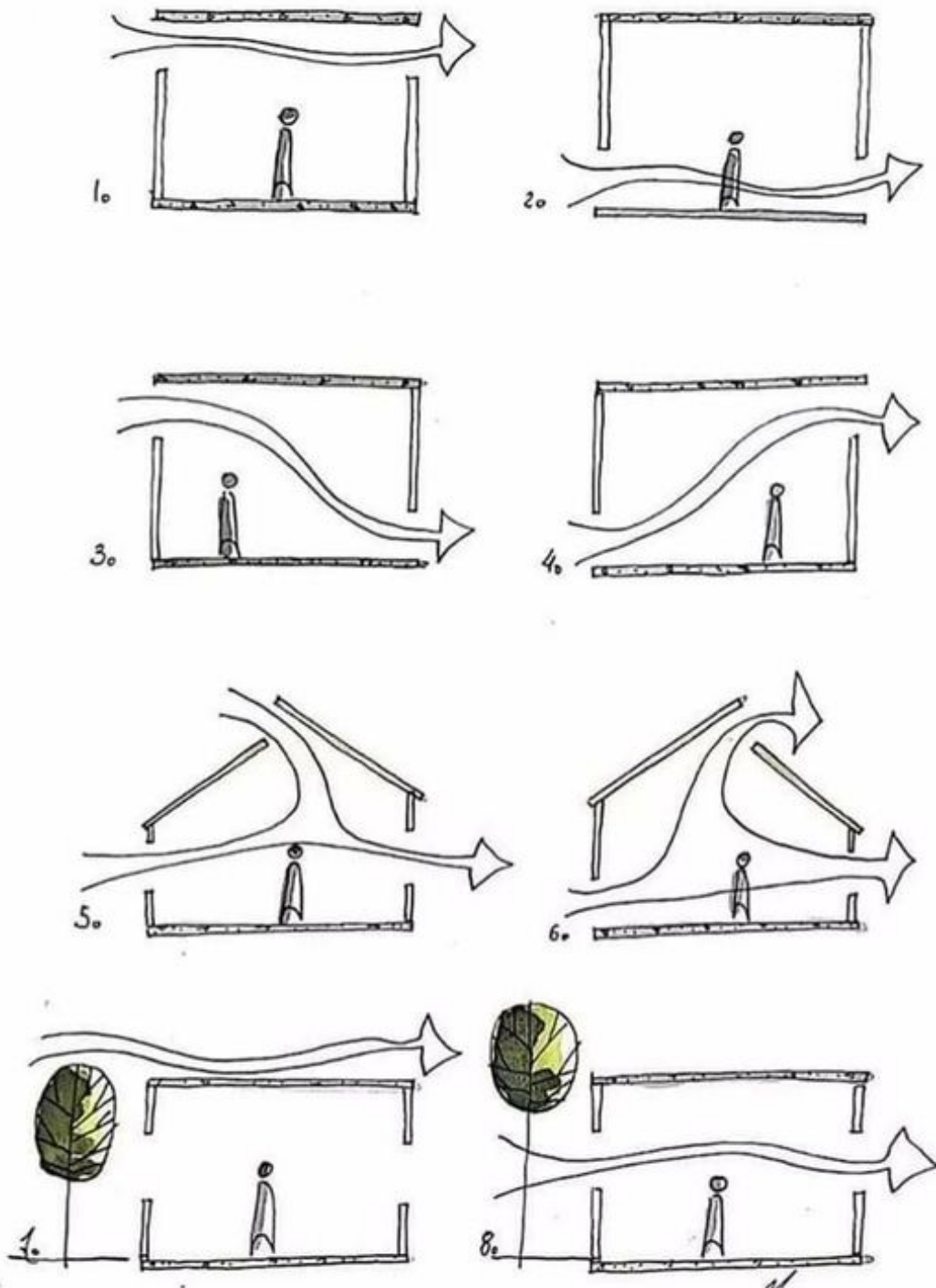


DIAGRAM.

