

Parc Frédéric-Back / Complexe Environnemental de Saint-Michel

A unique metamorphosis



RETISSER
LA VILLE
FIXING
THE CITY
CanU10
18 - 20 oct. 2018

Montréal 

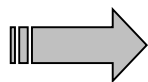
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A model transformation...



Limestone
quarry



Landfill site



Symbolic park

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Frédéric-Back Park

- ✓ Part of Montréal's Great Parks' network
- ✓ Metropolitan Park, along with Mount Royal Park



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A timeline...

- 1749 - Several small quarries and lime kilns present on site
- 1957 - The four existing quarries merge under the name MIRON
- 1984 - City of Montréal acquires site – ends extraction activities**
- 1995 - A 5 km linear park is opened on the Couronne area
 - Management building is built
- 1997 - Site's Master plan is adopted**
- 1999 - The Écocentre Saint-Michel opens its doors
- 2000 - End of the domestic waste landfill
- 2004 - Opening of the Welcoming Pavillion (TOHU)
- 2009 - Opening of the TAZ (rollerblade and skateboard stadium)
 - End of the inert materials landfill
- 2014 - Landfill covering completed**
- 2015 - Beginning of the park's construction
 - Opening of the soccer stadium
- 2017 - Inauguration of 375th anniversary legacy (park center)**
- 2025 - Park's completion

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Images of the past - 1960



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Images of the past - 1965



BC-189-9

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Images of the past - 1990



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Images of the past - 2014



Area opened to the public

Area closed to the public

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Design goals

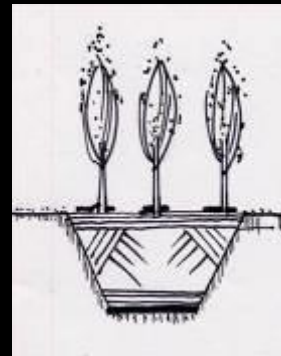
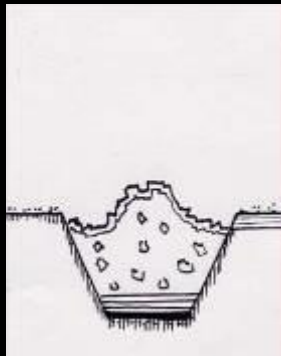
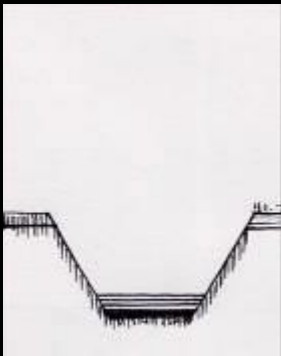
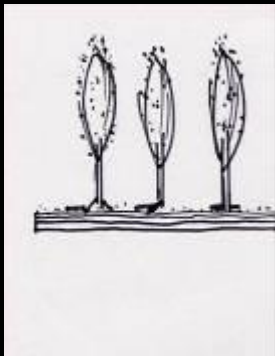


- Mission** : *Education – Environment – Culture*
- Identifying features** : *Vastness – Environmental design – Exceptional experience*
- Goals** : *Highlight site's history and landscapes*
Promote biodiversity and sustainable ecosystems
Contribute to Montreal's International recognition

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Design concept - METAMORPHOSIS



... A site
dedicated
to evolution

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Site's Master Plan – Today

■ CESM : 192 hectares

■ Park : 153 hectares

■ Landfill : 72 hectares



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Sectors



CROWN : Champdoré / Iberville / Jarry / Papineau
CENTER : Lac / Plaine / Boisé / Terrasses

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Planting Strategies

- ✓ Adapted management plan
- ✓ Indigenous plants – biodiversity - Ecosystemic corridors



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Lighting strategy



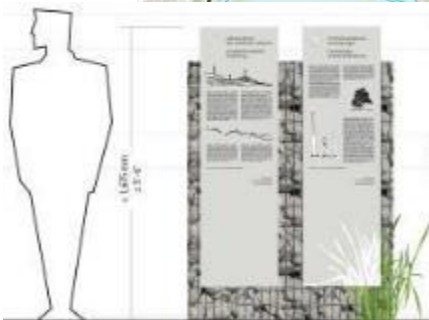
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Interpretation strategy

- ✓ Guided and self directed tours / Thematic trails
- ✓ Interactive and non intrusive experience



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Animation strategy

Contact with nature – Unusualness – Interaction - Variety – Educational – Fun – Imaginative – Family oriented – Group and individual -



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Activities - SUMMER



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Activities - WINTER



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Technical challenges



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- ✓ Underground : 40M tons of garbage /70m high
- ✓ 500 biogas-wells-piezometers-valves+17 km underground pipelines
- ✓ No water percolation and no intrusion in the landfill top layer
- ✓ Microclimate+poor soil+water restriction = limit plant material
- ✓ Soil settlements request a flexible design
- ✓ Challenges with surveillance, security, accessibility and visibility
- ✓ Landlocked site with steep cliffs / long corridors without exit

Technical challenges

- Site's climate extremes
- Soil quantity - quality - amendments
- Sustainable maintenance vs citizens' requests vs undesirable plants management
- Fauna vs human cohabitation – security/education
- Gentrification of surrounded area
- Political support through time



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Sustainable actions

- **Citizens implication**

Public consultation - Concertation table with over 21 organisms - local employment favored by our partners

- **Reused and recycled material**

Soil, Sand, Rock-Concrete, Crush stone, Leaves compost, Mulch, Ash logs torrefied and transformed into furniture...

- **Biogaz recycled + leachate treated**

Biogaz transformed into electricity - Leachate treated on site

- **Stormwater management**

System of ditches, cascades, basins, lake to avoid percolation

- **Biodiversity**

Indigenous and xerolandscape plants - Wildlife corridor dedicated to fragile species – ecohabitats...

- **Sustainable transportation**

Public and active transportation favored (2 mobility hubs) - Electrical shuttle and maintenance vehicles by 2020

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Unique feature

The SPHERES – 255 protective cases

- Adaptable 3m wide round shape -
- Highlights environmental engineering
- Reduces winter maintenance and effect of soil
- Phosphorescent paint for curiosity and animation



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Phase 1 – 2017 – 26 hectares



Phase 1 + Crown : 48 hectares opened to public

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Legacy for the 375th anniversary of Montreal



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Papineau South



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Papineau South



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Papineau North



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Iberville South



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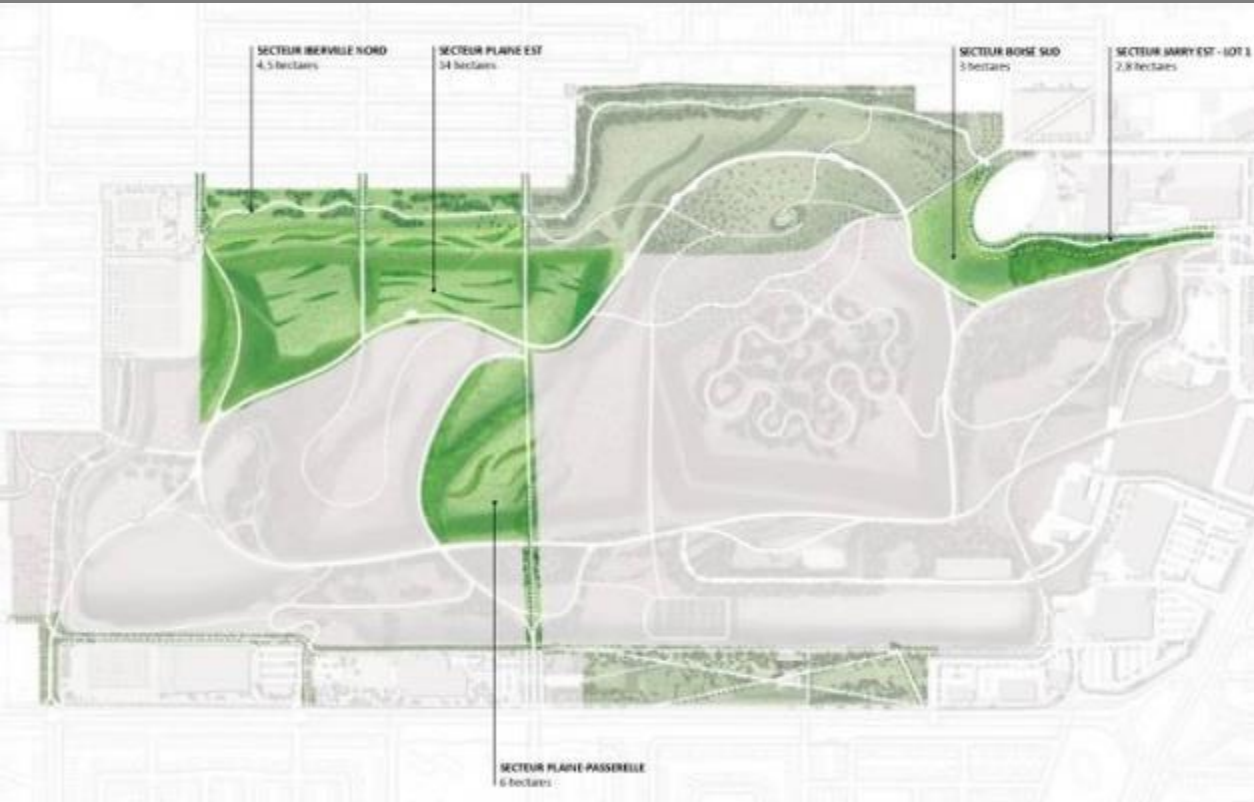
Boisé East



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Phase 2 : 2019 – 2021 : 29 hectares



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Phase 2 under construction...



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Completion – 2025 +



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Frédéric-Back Park...



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... vast and spectacular...



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... technological and educational...



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...fun and festive...



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... a place for everyone...



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... and even more !



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A unique metamorphosis...

... for a one of a kind park



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Montréal 

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