Landfill Re-morial
The reclamation of the City of Fargo Landfill

Landscape Architecture Design Thesis
City of Fargo Landfill, Fargo, ND
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“Memory does not equal preservation but instead has a transient quality. It implies a re-representation or understanding of the past, as memories constantly shift and change as one experiences life. The memory of a site should be used as a design strategy, as it shows depth and a process of connection.” - Peter Latz
Landfill Re-morial

‘Architecture has to have the element of time. Design will always be as perfect as it was conceived. Though the facade may fade away, the spirituality will remain.’ - I.M. Pei
Landfill Re-morial

Through this thesis I hope to create a space that educates community members of current waste management issues. By taking a landfill and recycling the space into an asset for the public I hope to inspire Fargo-Moorhead citizens to make cleaner and greener choices daily.
How many *active landfills* are there in the US?

+ 1,000
+ 2,000
+ 3,000
How many active landfills are there in the US?

+ 1,000
+ 2,000
+ 3,000
3,091
How many inactive landfills are there in the US?

+ 1,000
+ 2,000
+ 3,000

3,091

+ 10,000
Why is this important?

- Leachate Leaking
- Wasted Land Use
- Non-renewable Resource Depletion
Why is this important?

- Leachate Leaking
- Wasted Land Use
- Non-renewable Resource Depletion
What is a re-morial?
What is a re-morial?

Taking a present inconvenient truth and dramatizing it, to commit it to memory.
Existing Slope Analysis

steepest slope (1/5)

winter wind

summer wind

medium slope (1/4)

shallow slope

steepest slope (1/5)

winter wind

summer wind
Methane Pipes

- methane pipes
- pump stations
Site Concerns

Landfill Smell
Site Safety
Vegetation Planting
Site Concerns

- Landfill Smell
- Site Safety
- Vegetation Planting

Methane
Fresh Kills Park: NY, NY

Previously the largest landfill in the world, Fresh Kills Park is now a revitalized statement for the potential of waste reclamation. Boasting a lack of smell and natural decor, this former eye and nose soar are beautification incarnate.

Fresh Kills educates the people of New York about best management practices, through example. It begins to redefine how landfills are viewed and their propensity post-closure; which is what I plan to do in Fargo.
Byxbee Park: Palo Alto, California

Byxbee park is an art exhibit in the form of a park. Atop a reclaimed landfill, Byxbee has amenities for biking and pleasure strolling.

The park finds itself outside of the typical route of its park-goers, meaning that the park itself has been made a distinct destination, which is an obstacle I will be crossing as I progress with thesis.
Mabel Davies Park: Austin, TX

Davies Park took a 50 acre gravel quarry and landfill, then transformed them into a community asset. $500,000 in funding was provided through the EPA to complete this $7,300,000 project.

A funding model for Fargo can be created from a site similar to Fargo’s 127 acre site.
Site Concerns

- Landfill Smell
- Site Safety
- Vegetation Planting
Design Goals

**WHAT IS?**
- Education
- Recreation
- Reclamation
- Remediation
- Habitat

**Concept**
- Immediate
- Working
- Long-term
- Declarative
- Non-Declarative

**Formation through Association**
- Sight, Scent, Sound
- Our Impressions
- Abstract Relationship amongst Thoughts

**Attention**
- Immediate
- Working
- Long-term

**Working Event**
- Memory

**Consolidation**
Concept Elements

Spectacle (Immediate)

Current Issue (Working)

Commit To Memory (Long Term)

Program Elements

Design Elements

Memory Forming Outdoor Room
Sculpture Exhibits
Trail Circulation System
Carrion Insect Habitat
Bird Habitat
Winter Sports Hill
Leachate Pump System
Methane Pump System
A re-morial makes a spectacle of a current issue committing it.

Habitational Winter
Sports Hill

Byproduct Management
Sculptures

Interactive Outdoor
Sculpture Classrooms
Plant List

Trees
- Freeman & Silver Maple
- Bur Oak
- White Ash
- Sitka Spruce
- Douglas Fir

Shrubs
- Redosier Dogwood
- Ninebark
- Pacific Rhododendron
- Red Elderberry
- Snowberry
- Evergreen Huckleberry

Grasses
- Big Bluestem
- Switch Grass
- Bottlebrush Grass
Habitational Winter Sports Hill

- Leachate Monument
- Leachate System Maintenance
- Faunal Pond
- Interactive Outdoor Classroom
- Snow-making Pond
- Tubing Hill
- Renovated Community Center/Warming Building
- Byproduct Management
- Sculptures
- Bird & Insect Habitat
- 1" : 100'
- Interactive Outdoor Sculpture Classrooms
- 7th Avenue N.
Byproduct Management Sculptures

Habitational Winter Sports Hill

Interactive Outdoor Sculpture Classrooms

Leachate System Maintenance

Bird & Insect Habitat

Faunal Pond

Snow-making Pond

Interactive Outdoor Classroom

Renovated Community Center Warming Building

Sculpture Supply

Community Bike

1" : 100'
Lighting system indicates methane levels.

Prevention of methane release eliminates the odor.

Methane Heads
Methane pumps collect the natural gas formed in the landfill and indicate the amount of methane being produced by the waste. They also act as the tow-rope system for winter sport athletes back from the summit.

Sledding Hill/Biking Trail
Large vegetative masses are possible because of the 3' clay membrane separating refuse from plant roots. The clay membrane also keeps methane from surfacing, eliminating the odor associated with the landfill.

Byproduct Management Sculptures
This space is designed for local schools which could use the space when learning about recycling and sustainability during their elementary school curriculum. The space is also the introduction to the site trails which are used by pedestrians and bicyclists.
Site Plan B

- Leachate Re-morial
- Leachate Pump Station
- Park Trail
- Existing Sidewalk
- Flagstone Path
- Prairie Grass Bed
The sculptures symbolize the act of remembrance that the park attempts to stimulate. They are constructed using recycled materials from the landfill to remind site users of the potential.
Through this thesis design I have created a space that educates community members of current waste management issues. By taking our landfill and reclaiming the space, morphing it into a re-morial I hope to inspire Fargo-Moorhead citizens to make cleaner choices which will in turn impact the world.

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