RICE UNIVERSITY

Houston Needs a Mountain:
Towards a New Monumentality

by

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family friends photographed in the images

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your help will never be forgotten

MY FAMILY
Kamiko Oliveros, you are truly my better half and my best friend
Kaori, Rori, and Quino who's unconditional love keeps me wanting more.
My Parents who taught me how to dream.

Thank you, Thank you, Thank you.
ABSTRACT

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Garbage is a global problem. In Texas, soft regulations and landfill closures have made way for the dawn of the mega landfill. The reduction of landfill locations multiplied by extreme suburban sprawl, has forced the landfills to take on a vertical mountainous form to accommodate consumption and land boundaries. Such a metamorphosis has spawned coalitions to fight against the visual and sensory upheavals growing in their own communities; ironically it is only due to their own making. This thesis looks at three new paradigms of garbage organization and disposal that produce alternatives and finds positivity in the inevitable we already face.
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MOUNTAIN
WE CONSUME

“OUR ENORMOUS PRODUCTIVE ECONOMY DEMANDS THAT WE MAKE CONSUMPTION OUR WAY OF LIFE. THAT WE CONVERT THE BUYING AND USE OF OUR GOODS INTO RITUALS, THAT WE SEEK OUR SPIRITUAL SATISFACTION AND EGO SATISFACTION IN CONSUMPTION. WE NEED THINGS CONSUMED, BURNED UP, REPLACED AND DISCARDED AT AN EVER ACCELERATING RATE”

-VICTOR LE BOUE
MARKET ANALYST
After the Second World War, the American economy was strong and consumer confidence was at an all time high. With the mass amount of consumer goods and a media source present in most households, Americans found themselves in a buying frenzy and living the American dream.
"DESIGNED TO FAIL..."

WE CONSUME AS MUCH SINCE THE

BLK & WHT: ITEMS I HAVE CONSUMED AND EXIST SOMEWHERE IN A LANDFILL
COLOR: GOODS PRESENTLY CONSUMING
IN OUR CURRENT CONSUMPTION ERA...

OF CONSUMED PRODUCTS ARE THROWN INTO A
MESS'D WITH TEXAS

LANDFILL ACTIVITY STATUS 2006

<table>
<thead>
<tr>
<th>Status</th>
<th>Active</th>
<th>Inactive</th>
<th>Post Closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>187</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>Closed</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>246</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

- ACTIVE
- CLOSED
- INACTIVE
- MISSING
- NOT CONSTRUCTED
- POST CLOSURE
IN 2006 TEXAS PRODUCED 30,453,702 TONS OF GARBAGE WITH 1,366,311,822 TONS OF AVAILABLE CAPACITY LEFT (45 YEARS)

TEXAS HAS ONE OF THE WEAKEST REGULATIONS OF WASTE DISPOSAL AND RECYCLING IN THE NATION. OVER THE PAST 12 YRS THE TCEQ* HAS ALLOWED THE SIZE AND HEIGHT OF LANDFILL TO INCREASE DRAMATICALLY WORSENING THE PROBLEMS: WATER CONTAMINATION, NOXIOUS GASES, ODORS, EROSION, AND DEPRECATING PROPERTY VALUES
SINCE 1986 MSW\* HAVE CLOSED OVER 700 LANDFILLS
SINCE 1986 WE TRIPPLED THE AMOUNT OF GARBAGE SINCE, OUR LANDFILLS HAVE BECOME "MEGA LANDFILLS"
By 2010 Houston will have an estimated population growth of 40%, increasing the amount of garbage produced and reducing our available years of capacity of 40 yrs to under 25 yrs.

Houston's population growth are pushing housing right up to the landfill edge. In adjacent Brazoria county, they experienced a growth of 48% just last year and have will have a "mega landfill."
THE BLUE RIDGE LANDFILL

**CURRENT FACILITY**
- FACILITY SIZE: 302 ACRES
- WASTE DISPOSAL AREA: 599 ACRES
- MAXIMUM HEIGHT: 58 FEET
- AIRSPACE CAPACITY: 167,878,000 CY

**FUTURE EXPANSION**
- FACILITY SIZE: 1345 ACRES
- WASTE DISPOSAL AREA: 784 ACRES
- MAXIMUM HEIGHT: 178 FEET
- AIRSPACE CAPACITY: 26,760,000 CY
SCALES:
EFFECTS OF EXPANSION

LOWER PROPERTY VALUES
ENVIRONMENTAL COMPLICATIONS
SAFETY OF DRINKING WATER
FLOODING

AESTHETICS OF DEVELOPMENT
SCAVENGER SPECIES
AIR POLLUTION
TRUCK TRAFFIC
This Thesis looks to confront our inevitability with our own trash problem. The Blue Ridge Landfill is a developing mountain of trash that will become the largest earth formation in all of Houston and southern Texas. As designers and architects the mountain of garbage symbolizes a new paradigm of reinterpreting public green space and the new translation of monumentality.

Landfills have always been the large voids in the city fabric; they are disguised and hidden from public’s view. This proposal gives an alternative to the current typology by reorganizing, restructuring, and redesigning the waste ‘scapes in order to reinsert it back into the city like grafted new participatory organ.

Landfills are containers of time stamped consumption and local historical events. By studying the cross sections of the cellular land mass, it is possible to trace the archeology of our recent past human life, activities, Technology, fads, and catastrophes. Landfills are no longer smelly piles of trash, they will be the new epicenters of learning, archiving, recreation, migration routes and alternate energy opportunities.
CURRENT METHODOLOGY OF LANDFILL DISPOSAL

DAILY CELL
CUTTING A CROSS SECTION THROUGH A TYPICAL LANDFILL:

2003
HURRICANE KATRINA RITA

2008
HURRICANE IKE

2010
END OF ANALOG SIGNAL

2020
GARBAGE IS COMPLETELY PROCESSED
TIME STAMPED CONTAINER OF OUR RECENT PAST

25 BASED TICS
2028 SURPLUS PLASTIC
2032 NASA SURPLUS OF EQUIPMENT
2040 NO PETROLIUM DEPENDENCY
2044 ELECTRIC CARS
SITE TAXONOMY
ONE MILE RADIUS
CURRENTLY LANDFILLS ARE VOIDS IN THE CITY FABRIC, THEY ARE BLIND SPOTS THAT ARE HIDDEN FROM PUBLIC VIEW. BY CUTTING AND FILLING THE LANDFILL, THE CITY NOW HAS THE ABILITY TO CIRCULATE THROUGH RATHER THAN AROUND THE LARGE LAND FORMATION. THIS SIMPLE ALTERATION LENDS NEW DISPOSAL TECHNIQUES AND CAN BE APPROPRIATED TO LANDFILLS WORLD WIDE IN A NEW PARADIGM OF GARBAGE ORGANIZATION.

ADAPTING A CITY GRAIN

FAST VEHICULAR ROUTES

WATER MOVEMENT

MEANDERING CROSSING ROUTES

PREVAILING WINDS

WEB OF PEDESTRIAN ROUTES
PROPOSED NEW MASTER PLAN FOR THE BLUE RIDGE LANDFILL EXPANSION
THE TYPICAL LANDFILL TAKES ITS MOUNTAINOUS FORM FROM A CONSTANT STACKING AND LAYERING OF DAILY TO ANNUAL DEPOSITS. THE PROPOSAL OF PHASE ONE IS TO USE THE CURRENT METHODOLOGY, BUT RE-ORGANIZES THE TRASH INTO AN INDEX. EACH TRASH MOUNTAIN IS A SIGNIFIER OF THE REGIONS ANNUAL CONSUMPTION. ITS AUTONOMY NOT ONLY SUGGESTS AN AWARENESS OF THE SHEER VOLUME THE VISITOR IS CONFRONTED WITH, BUT ARE THE NEW MONUMENTS THAT CONTAIN THE HISTORY OF OUR RECENT PAST.
PHASE ONE
TIME DIAGRAMS
+1 MONTH +3 MONTHS +8 MONTHS +12 MONTHS
IN STUDYING LANDFILLS AND OUR CURRENT GARBAGE DISPOSAL TECHNIQUES, I BELIEVE THAT THESE SIMPLE APPLICATIONS CAN PERSUADE ARCHITECTS, DESIGNERS, URBAN PLANNERS AND THE COMMUNITY TO CREATE A NEW CHOICE. A CHOICE TO SHAPE THE MOUNTAIN OF GARBAGE THAT CONTINUOUSLY FORMS DUE TO OUR NEED TO CONSUME. THIS THESIS SHOW POSSIBILITIES THAT ARE CONCEIVED FOR THE UTOPIA, BUT GIVE A HOPE AND AN UNDERSTANDING THAT MAY YIELD NEW ALTERNATIVES THAT CAN BE IMPLEMENTED IN OUR PRESENT CONSUMPTION CRISIS. CALL IT FINDING POSITIVITY IN OUR INEVITABILITY, I BELIEVE THAT
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http://farm1.static.flickr.com/140/398622074_49e5e96c4b_b.jpg

“Steam rises as a compactor rolls over freshly dumped garbage at Freshkills landfill 2001.”
Photo by: Michael Falco, Photographer.
http://www.falcophoto.com/landfill_index.html