UNIVERSITY OF CINCINNATI

Date: 26-May-2010

I, Eric R Claus, hereby submit this original work as part of the requirements for the degree of:

Master of Architecture

in Architecture (Master of)

It is entitled:

Waste Landscapes: [Re]valuing Urban Marginalia

Student Signature: Eric R Claus

This work and its defense approved by:

Committee Chair: Aarati Kanekar, PhD

Rebecca Williamson, PhD

Aarati Kanekar, PhD

Rebecca Williamson, PhD
WASTE LANDSCAPES
[RE]VALUING URBAN MARGINALIA

A THESIS SUBMITTED TO THE UNIVERSITY OF CINCINNATI DIVISION OF RESEARCH AND ADVANCED STUDIES
FOR PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTERS OF ARCHITECTURE
SCHOOL OF ARCHITECTURE AND INTERIOR DESIGN
MAY 28, 2010
BY
ERIC CLAUS
B.A. ARCH, MIAMI UNIVERSITY, 2003
Cities in North America are undergoing an organizational shift as urbanization increasingly expands outward, horizontally and diffusely. Left in the wake of decentralization and urban restructuring are sites of waste. When viewed by a culture obsessed with clean and orderly space these sites are reified as valueless entities and classified as waste landscapes. They are exiled to precincts beyond public perception.

The conventional approaches to waste landscapes in urban design appear ill suited to address these emergent challenges. All too often designers prioritize centralized and technocratic methodologies that continue to reinforce dualistic processes. The designs place culture in opposition to nature, construction in opposition to landscape, and everyday space in opposition to waste landscapes.

This thesis implements a multivalent approach within the domain of landscape. Landscape is no longer subjugated as supporting cultural operations. It is reframed as a constructed ground written by culture. Landscape becomes an author of an unfolding and interwoven process binding ecology and society. The thesis investigates the conditions surrounding Cincinnati’s Mill Creek and how an integrative approach can reintroduce a public realm into waste landscapes and create awareness and incremental change.

The integrative approach is explored at fifteen public sites along the Mill Creek that pass through the proposed Mill Creek Greenway. The parametric design strategy addresses issues of watershed health and management by introducing interventions that prioritize ecological and cultural processes over static form-based design. To foster interventions flexible to local conditions and the inevitability of change the design deploys a batch of programmatic ingredients called the kit of program, a kit of parts to unify the architectural language of the sites, an organizational framework for future interventions, and a representational focus that seeks to decouple the picturesque from landscape.

At the root of the thesis problem is society’s obstructed relationship to waste. To be in an environment without waste is impossible. Despite the best efforts of culture, waste has a way of moving out of the shadows and seeping back into our lives. We are surrounded by waste and the infrastructural systems created to separate us from it.

Waste is not something to be eradicated. This view is too simplistic. We are what we eat and we are what we waste. Not only are we defined by our consumption but also by our wasting. Waste landscapes can be reframed and revalued through design as a constructed ground capable of dislocating the most conventional ways of seeing in society. The approach taken by this thesis seeks to recognize the diversity of forces acting within the contemporary urban landscape in a hope that a new alignment might offer innovative ways seeing, and more importantly, acting in waste landscapes.
# TABLE OF CONTENTS

iv  ACKNOWLEDGEMENTS

1  INTRODUCTION
   The Values
   The Wasted
   Waste Landscapes Defined
   An Integrative Approach & The Mill Creek

## PART ONE: DESIGN WITHIN WASTE LANDSCAPES

9  CHAPTER ONE: PRECEDENT APPROACHES TO WASTE LANDSCAPES
   A Framework for Designing within Waste Landscapes
   The Modernist Approach: IIT Campus | Mies van der Rohe
   The Restorative Approach: Superfund | U.S. Environmental Protection Agency
   The Mitigation Approach: Seattle Gas Works Park | Richard Haag
   The Curatorial Approach: Anonyme Skulpturen | Hilla & Bernd Becher
   The Celebrative Approach: Earthworks | Robert Smithson
   The Educative Approach: Duisburg Nord Landschafts Park | Latz + Partner
   The Integrative Approach: Defining a New Method

## PART TWO: CINCINNATI'S MILL CREEK

CHAPTER THREE: DEFINING THE PROBLEM  29
   The Mill Creek's History: Shifting Value Over Time
   Aerial Photography of the Mill Creek Watershed
   Representing Watershed Issues
   Site Analysis

CHAPTER FOUR: DESIGN  69
   Site Selection Process
   Stitching the Urban Fabric
   Kit of Program: [Re]Valuing the Mill Creek
   Kit of Parts: Defining a Techtonic Language
   Catalog of Sites

APPENDIX I: DESIGN PROCESS  71
APPENDIX II: SITE PHOTOGRAPHY  83

Bibliography  111
Figure Credits  113
Like the sea of stones on the adjoining page, I owe many thanks to an innumerable people for contributions both big and small. I would not have completed this thesis and the entire graduate school experience without the kindness, support, and love from so many people. I thank my thesis chair Aarati Kanekar for her steady handed approach I oscillated in and out of “crisis”. Over the long thesis process she continually led me back to solid ground. I thank my second chair Rebecca Williamson for her insistence that I bring the grittiness of waste into my project. Her suggestions reminded me of architecture’s role in the larger cultural discourse related to waste.

I thank Bruce Koehler from the Ohio Indiana Kentucky Regional Council of Governments. His willingness to share his experiences and knowledge from along the Mill Creek initiated many fruitful discoveries. I thank Warren High from MACTEC. His thoughts on how an architect might introduce environmental engineering concepts into sites like the Mill Creek broadened my approach and added meaningful depth to my ecological contributions. I thank Bill Schmidt from Signature Heli for his gracious contribution of flight time over the Mill Creek. The photography during that chilly autumn afternoon has granted me a new perspective of the complex urban landscape of the Mill Creek and its surrounding watershed.

I want to thank my mom and dad for years of support financially, ready made meals, encouraging conversation, and love. Most off all I want to thank my amazing wife. Thank you for your unfiltered thoughts as we walked Crosley all over the neighborhood. Thank you for your well timed hugs. Thank for making money when all I did was spend it on basswood models. Michelle, there is no way I can every thank you enough for putting up with my crazy schedule, absentee mind, and emotional peaks and valleys. All I can hope is to be as wonderful a husband as you are a wife. I love you Most Beautiful.
INTRODUCTION: THE VALUED

Cars at a McDonald’s drive-thru endlessly surging forward. A suburban office park surrounded by cars. A Wal-Mart bustling with commerce. Four lanes of asphalt streaming with traffic each way.
A golf course glistening in the morning light. McMansions. Amongst bulldozed lots. Within exploding regions.
INTRODUCTION: THE WASTED

A boarded over dinner. A stamping factory quietly crumbling. A deserted mall decaying in its motionless parking lot. An overgrown rail line rusting to the horizon.
INTRODUCTION

Introduction:

Cities in North America are undergoing an organizational shift as urbanization increasingly expands outward, horizontally and diffusely. Left in the wake of decentralization and urban restructuring are sites of eroded and production ceased. When viewed by a culture obsessed with clean and orderly space these sites are reified as valueless entities and classified as waste landscapes. They are excluded to precocities beyond public perception.

Increasingly purged, disconnected and isolated, waste landscapes have become incongruent with adjacent normative space. The conventional approaches to waste landscapes in urban design appear ill suited to address these emergent challenges. All too often designers prioritize centralized and technocratic methodologies that continue to reinforce dualistic processes. These designs place culture in opposition to nature, construction in opposition to landscape, and everyday space in opposition to waste landscapes.

This thesis implements a multivalent approach within the domain of landscape. Landscape is no longer subjugated as supporting cultural operations. It is reframed as a constructed ground written by culture. Landscape becomes an author of an unfolding and intervening process binding ecology and society. The thesis investigates the conditions surrounding Cincinnati’s Mill Creek and how an integrative approach can reintroduce a public realm into waste landscapes and create awareness and incremental change. The integrative approach is centered on the following five key themes.

First is the prioritization of a framework over form. The integrative approach is less about the aesthetics of the landscape and more about the processes that engage and affect its context. The landscape’s stylistic language, though an important participant, takes a back seat to the issues the design it is attempting to address through its efficacious elements. It creates the structure for transformation while still allowing the design to change over time.

Second it seeds the urban fabric for the future. Waste reveals the limitations of the centralized planned city; the idea that we can design holistic scenarios capable of encapsulating all current and future desires. A utopian view negates the inevitability of change. Rather than viewing a site and its design as a single, static moment in time projects like Field Operation’s Fresh Kills Park on Staten Island plant the seeds of programmatic and physical succession in a framework of process. The design develops a knitting of cultural and ecological elements over time and while maintaining flexibility for the unplanned future.

The forces that shape waste landscapes are too complex and contorted for immediate broad stroke solutions. A temporal dimension must be incorporated into any designed response. Change cannot happen at once. It should be part of a design capable of unfolding over time but not limited to a single solution. The desire for the utopian solution gives way to multiplicity of interpretations within a flexible framework.

Thirdly the integrative approach embraces the continually shifting values of waste. This is a concept explored in Corner’s Waste’s Understanding the Rubbish Society. In a chapter titled “Rubbish Literatures”, the argument weaves its way through several historical periods using literature to highlight cultural attitudes toward waste. What emerges out of the work of Dickens, T.S. Elliot, and others is that waste has had a multiplicity of meanings and values that have shifted with the ebb and flow of time and cultural. Therefore, isolating how designers have framed waste reveals formative attitudes toward it. By analyzing design methodologies implemented within the context of waste landscapes, cultural values within a time and place can be exposed.

Waste landscapes such as the Mill Creek, having been formed and reformed over the several centuries, acquire ever-thickening layers from which new interpretations and possibilities can be formed.

Thus the conceptualization of the Mill Creek and its physical presence are not static. Today when the Mill Creek is conceptualized the many recall its polluted state (fig. 18). But looking back to broad oil canvases from the nineteenth century its conceptualization is quite different (fig. 17).

Landscapes are not uniformly shared across cultures and time. Their value and meaning shift with the progression of time and development of culture. In a world where the rhetoric of globalization pervades almost every facet of life it is important to remember that views of landscape are not uniformly shared and to think in such a monolithic fashion risks imposing one’s own image of landscape on another’s.

In many ways this can be seen as one of the primary failings of the Modernist approach. The utopian visions of designs largely ignored local characteristics and values. An integrative approach, as outlined by author Mira Engler, can be seen as a method that resists homogeneity and uniformity while heightening local attributes and creating a local sense of place. The approach leans on the ability of the site’s memory to offer a sense of stability and permanence in contrast to the frenetic pace of contemporary society.

Fourthly the Integrative Approach decouples landscape from the notion of the picturesque. Specifically, this thesis is concerned with Cincinnati’s Mill Creek. For nearly two hundred years the stream has served as an essential backbone for urbanization. Today it is listed as one of the most endangered urban waterways in the United States. Stripped of native vegetation, partially channelized and lined in concrete, it runs though toxic waste sites and abandoned properties all the while being flushed

---

2 Answering Landscape, pg 5.
3 Answering Landscape, pg 5.
5 Answering Landscape, 13.
toilets, industrial effluent and unabated surface runoff. Due to this unsightly and unhealthy status it has received little attention. Over the past century the value of the surrounding urban fabric has shifted. Once alive with thousands of residents and teeming with production today it is a shadow of its former self. A hodgepodge of warehouses, logistics companies, vacant lots, abandoned buildings, impoverished neighborhoods, high-tension power lines, and municipal waste facilities are strung along its winding twenty-eight mile path.

The current master plan for the Mill Creek intends to implement a greenway as an urban amenity and means of engaging many issues surrounding the waterway. It outlines a broad agenda ranging from environmental concerns and quality of life issues to educational objectives and economic goals. The underlying philosophy of the strategy is that of sentimentality and conservatism. It prioritizes deeply engrained notions of the picturesque landscape. The Mill Creek Greenway Master Plan that has been jointly developed by several government agencies and non-profit groups. Several portions have been completed but largely it remains incomplete. The plan seeks to mask or eliminate waste via the implementation of an idealized notion of nature and landscape (fig 19). The plan is a praiseworthy effort but the patchwork attempt lacks substantial power as an innovative cultural agent. The restorative approach constructs spaces that fail to recognize culture’s harmful ways of being and acting in the world which lie at the root of the environmentalist problems.

The fifth and most significant is deploys landscape as a verb. The integrative approach revalues and reframes the waste landscapes without negating their tangled and, many times, conflicting relationships to culture. This thesis seeks to deploy landscape as an active agent in incremental change to the Mill Creek watershed. It is a method capable of revaluing and conceptually realigning marginalized sites with normative space.

This thesis explores the integrative approach at fifteen public sites along the Mill Creek that the proposed Mill Creek Greenway passes through. The parametric design strategy addresses issues of water-shed health and management by introducing interventions that prioritize ecological and cultural processes over static form-based design. To foster interventions flexible to local conditions and the inevitability of change the design deploys a batch of programmatic ingredients called the kit of program, a kit of parts to unify the architectural language of the sites, an organizational framework for future interventions, and a representational focus that seeks to decouple the picturesque from landscape.

At the root of the thesis problem is society’s obstructed relationship to waste. To be in an environment without waste is impossible. As stated in the book Drosscape, the urban milieu is an open system whose planned complexity always produces unplanned waste. The processes of urban restructuring continually require new structures to address waste. Despite the best efforts of culture, waste has a way of moving out of the shadows and seeping back into our lives. We are surrounded by waste and the infrastructural systems created to separate us from it. Waste is not something to be eradicated. This view is too simplistic. We are what we eat and we are what we waste. Not only are we defined by our consumption but also by our wasting. Waste landscapes can be reframed and revalued as a constructed ground capable of dislocating the most conventional ways of seeing in society. A landscape is more than something to preserve or remanufacture to a “natural” state. The approach taken by this thesis seeks to recognize the diversity of forces acting in the contemporary urban landscape in a hope that a new alignment might offer innovative ways seeing and acting in waste landscapes.

7 Recovering Landscape, pg 4

PART ONE
DESIGN WITHIN WASTE LANDSCAPES

ABANDONED DRUM. Many sites I visited along the Mill Creek became convenient but illegal dumpsites. This large drum was overgrown by honeysuckle and weeds. Its contents are unknown.
Author and professor Mira Engler has succinctly identified several design methodologies implemented in waste landscapes. The approaches I have borrowed from her work and elaborated upon are the following: modernist approach, restorative approach, mitigation approach, educational approach, celebrative approach, and the integrative approach. Additionally, I have added the curatorial approach in response to the seminal work of Hilla and Bernd Becher and their photographic explorations of industrial landscapes. This thesis investigates each approach through a case study or through an artist’s genre of work. It should be noted that it is possible and probable that several design approaches operate simultaneously. Any design project wanders between many conceptual domains and agendas. I have attempted to explore a primary framework that organizes each project’s reading.

modernist approach

IIT Campus | Mies van der Rohe [1938 - 1958]

Mies van der Rohe’s campus for the Illinois Institute of Technology (IIT) is located in the Near South Side neighborhood of Chicago. Seen as a blighted section of the city the project cleared numerous urban blocks. Starting from a Tabula Rasa, the organization of the cleared site originated from a module of 24’ x 24’. This size was determined by three programmatic functions: classrooms, laboratories and drafting rooms. This room module was determined by the interior architecture and its programmatic requirements and in a reversal from typical practice drove the urban form. Over the next twenty years Mies designed and oversaw the construction of a large majority of the buildings on campus. The uniformly responded to the regimented matrix.

But as Mies stated, “Orderliness is the real reason.”1 Mies preferred space to be categorized, zoned and responsive to a design ethos of clarity. The chaotic and multifarious nature of Chicago’s Near North Side stood in polar opposition to the quest for order. The landscape was painted as waste and seen as disruptive to any attempt to impose a new pattern.2 The spirit of the times saw very little value in the existing urban fabric (figs 21, 22). The gritty neighborhood was systematically disassembled via legislation, civic initiatives, property acquisition, condemnation, resident relocation, demolition and clearance (fig 25). What remained was a sterilized platform for the extrusion of homogenous architecture and Universal Space. Mies used the notion of Universal Space as a common language to cope with his view of urbanism as increasingly characterized as non-hierarchical and decentralized. The architecture and planning of the IIT campus became the physical framework for a culture searching to limit deviation and irregularity in the modern city. It created islands of new order in the chaos of the modern city. When looked at in a macro context of the Modern movement it seems Mies was attempting to connect into what he saw as an emerging urban order (fig 26). Over time his campus design would be one of many designs that would eradicate the city of dirt and disorder. The medially of projects shared a utopian vision for the contemporary city and sought too squeeze out the that which did not conform with the new order.

The Modernists viewed waste landscapes as harmful, aesthetically displeasing and negative. The design approach sought to camouflage and conceal them or, as in the case of IIT, delete them absolutely. Little or no trace of the waste remained. The Modernist approach attempted to neutralize and fold space back into a normative landscape to create physical and social unity. Cities and buildings were universalized through the exploitation of the Miesian Grid, de-densified through urban land clearance, and decentralized via suburban sprawl. The material and patterns of cities became extrusions of pure grids, pure space, pure zoning and pure people. Modernist towers like St. Louis’ Pruitt-Igo and Chicago’s Cabrini Green sprouted out of the freshly leveled landscape in a boundless grassy lawn. Communities such as Levittown, and Bloomfield Hills blossomed in green fields adjacent to an expanding web of interstates. Waste retreated into the shadows of abandoned factories, beneath sprawling overpasses, and amongst inhumane public housing.

FIG. 21 | THE GOLDEN FLATS. Near South Side, 1941. Andreas Feininger, photographer.

FIG. 22 | SOME OF THEIR OFFSPRING. A cartoon in the Chicago Tribune depicting public perception of the Near South Side.

FIG. 23 | SSPB REDEVELOPMENT PLAN FOR THE NEAR SOUTH SIDE. Part of a New York Life Insurance Company Redevelopment Plan. Projects are inserted into the existing urban grid.

FIG. 24 | SURGERY FOR A CITY. This publication was distributed by the Chicago Land Clearance Commission, 1954. It makes the link between hygiene and the city through the imagery of the scalpel cutting into the urban fabric.

FIG. 25 | “STEPS IN THE REDEVELOPMENT OF A BLIGHTED AREA BY THE CHICAGO LAND CLEARANCE COMMISSION.” This image shows the tidy and systematic process to meant to eradicate the urban areas deemed unhealthy for the city as a whole.

FIG. 26 | MODERNIST APPROACH TO WASTE LANDSCAPES. The Modernist Approach to waste landscapes inserts organized space. Over time the utopian vision intends to convert and converge all waste with normative space.
RESTORATIVE APPROACH

Superfund | U.S. Environmental Protection Agency

Due to decades of unchecked industrialization, waste landscapes are scattered across the United States. The staggering costs of cleanup and the inadequate legal structures present during their operation have left many sites with no responsible or capable parties to see to the final remediation. In response to the discovery of sites such as Love Canal, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act of 1980. It is a program to protect citizens from the most heavily contaminated and abandoned toxic waste sites. Waste is removed through a process focused on health, safety, and welfare. It prioritizes the restoration of the site to a preindustrial status. Landscapes entrusted to this government program are scraped clean and restored as close as possible to their natural states as if the trauma never occurred (figs. 27, 28).

The restorative process is an example of a design method that invests heavily in idealized notions of landscape. The late Robert Smithson, commenting on the practice of strip mining, had this to say:

“I'm thinking of another problem that also exists, that of mining reclamation. It seems that when they made up the laws for mining reclamation they wanted to put back the mines the way they were before they mined them. Now that is a really Humpty Dumpty way of doing things. You can imagine the result when they try to deal with the Bingham pit in Utah…”(fig. 29)

Since this interview in 1973 escalating processes of deindustrialization have amplified Smithson's point.

The logic of the restorative approach is just as damaged as the landscape it seeks to repair. How can we ever truly restore sites such as this? The scale of strip mines bluntly displays the problem with this design approach; but scalability is not the primary weakness of the method. For Smithson, the issue seems to be the inability of this design approach to deal or incorporate the unanticipated circumstances of sites. The otherness of the place, the dirt and problems, cannot be negated due to its intertwined relationship with normative space. Therefore waste and decay must be seen as inseparable and directly related to productive and healthy space.

1 Love Canal was a 36 square block residential neighborhood in Niagara Falls, New York. Upon the discovery of thousands of tons of toxic waste buried beneath the development the site became a rallying point for environmental legislative reform.

This is the largest excavation in the world. It is .75 miles deep, 2.5 miles wide and covers over 1,900 acres.
MITIGATION APPROACH

Seattle Gas Works Park | Richard Haag & Associates [1975]

Writer Udo Weilacher suggests that Richard Haag’s design strategy for the Seattle Gas Works developed from the works like that of the photographic work of the Bechers and the Earth Art movement pioneered by Robert Smithson.1 Formerly the site of a gasification plant, the land was purchased in 1962 by the City of Seattle for development as a park. The decommissioned site was originally slated for complete demolition and removal in preparation for a picturesque park. But after Haag’s initial research he discovered the complex was the last of its kind. After many meetings and debates Haag persuaded residents and officials to keep much of the industrial complex based on its “historical, aesthetic and utilitarian value.”2 The final design stands in stark contrast to the popular notion of an urban park and is celebrated for its pioneering approach. The Seattle Gas Works Park exposes how industrial objects can be viewed and repurposed within the context urban recreation and reclamation while meeting environmental and functional needs of a park program.

The Gas Works Park is situated on a prominent site on the northern shore of Lake Union in the Wallingford neighborhood. The site projects into the lake creating an expansive and uninterrupted view of the city. The design amplifies the viewing potential by sculpting large undulating mounds from the rubble of the site. The manufactured hills elevate park goers. Continuing the theme of the site as a viewing platform minimal visual obstructions are created toward the views. Trees are planted to ward the back of the site near the parking and entrance and aid in shrouding the park from the surrounding neighborhood. The large open spaces to the south have become lawns for picnics, kite flying and sunbathing. A few of the original structures remain and have been retrofitted as a “Play Barn” and a picnic shelter. Some of the machinery has been left in place and painted. The most striking part of the park is the gas towers. Rather demolishing them or cleaning and painting them like the picnic shelter, the gas towers remain in their original form. The rusty maze of pipes, tanks and valves dramatically contrast the open green space, undulating landforms, park activities and picturesque vistas.

But the Seattle Gas Works Park is not without its shortcomings. In Mira Engler’s Designing America’s Waste Landscape she develops an expanded design framework for classifying approaches to sites such as Gas Works Park. In what she describes as the mitigation approach the intent of the designer is to lessen the impact of the polluted site (fig. 31).3 Born out of a scientific approach the process of environmental remediation is driven for the design. The contaminated soils were sculpted into large mounds and capped with a layer of clean soil and grass. The park used strategies of bioremediation and phytoremediation to cleanse the contaminated soils. The primary focus for this debate is not the effectiveness of those strategies in negating the environmental impact of industrial waste, though it seems the approach’s effectiveness has been called into question in recent years.4 The key point is how the science-based approach prioritized the value of a mitigated landscape. Haag’s design, despite designing with many of the elements of the previous industrial complex, engages park-goers in an edited dialog related to the sites polluted legacy. The empirical methodology limited the potential of the design to transcend normative practices of remediation.

Part of the site strategy was to stockpile the contaminant and cover them with a thin layer of landscape. Using remediation techniques the contaminants would be broken down over a calculated amount of time. The quantifiable problem of pollution had been resolved but question of meaning had been silenced under the grass surface. The undulating hills that provide dramatic views of the surrounding are clearly manmade. But there is no

2 1971 Seattle Master Plan
4 In this article testing reveals the reemerging of contaminants and the unmitigated pollution of groundwater. http://www3.interscience.wiley.com/journal/120001878/abstract?CRETRY=1&SRETRY=0 (proper citation needed – National Groundwater Association)
FIG. 31 | Mitigation Approach. The mitigation approach prioritizes technocratic solutions. Designs like the Gas Works Park that physically obscure the mechanisms at work within the landscape neglecting to clearly tell the story of the intervention.

marker of what lies below. Where does the landfill start or stop? Does this approach reveal buried tendencies in the cultural response to waste? The powerful process and legacy that is contained beneath one’s feet only justifies a bronze plaque or quick blurb on a Wiki entry. The other has been obscured beneath a sterilized landscape. It is not a misleading of the visitor but a miscommunication.

Additionally the issue of interaction was muddied. The primary structures that have come to symbolize the park are fenced off with imposing black chain link. Park goers are denied engagement much like visitors to carefully controlled museum exhibits. The Linnæusian zeal to categorize space and a litigious nature of society has overridden the potential of the structures to interact with visitors and form new perceptions and via tactile and experience.
EDUCATIVE APPROACH

Duisburg Nord Landschaftspark | Peter Latz und Partner [1999]

In many ways Peter Latz’s and Partners design for Duisburg-Nord breaks out and expands upon the limitations of the Seattle Gas Works Park. Similar cycles of industrialization and deindustrialization have occurred in Germany and have left many sites of contaminated and abandoned. One such site was the Thyssen Steelworks in Duisburg (fig. 31). Located in the industrial Ruhr Valley Region the site has once been a thriving component in the local steel manufacturing process. Economic restructuring in the later half of the twentieth century resulted in the closure of many plants and the implosion of the industrial base of the Ruhr Valley. Duisburg’s Thyssen Steelworks was closed in 1985. Void of industrial value it is as a silent collection of rusting buildings and polluted landscape.

In response to the depressed region, German officials created and funded the IBA Emscher Gmbh Corporation. The focus of the company was to use a multidisciplinary response to ecological problems. Rather than building on buildings, the chosen course was to create a network of nearly 100 projects spread over 800 square kilometers (fig. 32). It directed architects, planners, developers, artists, economists, and environmentalists to create a positive critical mass in the region capable of spurring on further projects of revitalization and remediation.1 The signature project of the venture was Peter Latz and Partner’s design for the Thyssen Steelworks and surrounding landscape. Renamed the Duisburg Nord Landschaftspark the evolution of project comes out of a deeply engrained relationship between the abandoned site and its rebirth as an urban park.

Programmatically the existing structures and landscapes becomes the armature for weaving in the new park functions and requirements (fig 34). The center of the park is the former metalworking structures. Here the gas holding tanks have been filled with 20,000 cubic meters of water and are used as recreational diving tanks. The German Mountaineering Association uses the ore bunkers for climbing. Many of the industrial warehouses and outbuildings have been converted into corporate facilities, museums, galleries, shops, and support spaces. The sinter bunkers have been transformed into an open-air gallery partially accessible on foot and partially accessible only by viewing above to avoid the spreading of containates entombed beneath the soil. Spaces have been carved out of the maze of steel to hold activities such as dance, cinema, theater, festivals, markets, discos and even a massive annual bike race called the Tour de Duisburg. At a more educative level the park’s design is encourages park goers to engage the legacy of waste and creates an awareness of its new potential.

For Latz, the design was about a minimal palette and slight moves. Rather than using and moving massive amounts of material in a grand formal gesture, Latz prioritized the retention of elements central to the comprehension of the site. As Latz states, “I never used to call it cultural recycling. It is more about taking items over in their entirety and understanding their original functions. That is why I find it so important not to put everything into the rubble crusher and use it as road building material.”2 He did not raise the site but rather he used light and pointed interventions.

This point is exemplified with his treatment of the concrete ore bunkers. Formerly the holding bins for massive amounts of raw material, the bunkers have been reclaimed as a labyrinthine art gallery. Inside are various art installations and landscaped gardens. The bunkers are a massive grid of thick concrete walls worn from generations of continuous operation. On the most basic level, deciding to keep it saved resources keeping the concrete out of the rubble crusher and reusing the space for a new function. Additionally it is filled by the softness and color of the flowers and lawns that set up a contrast between what was and what is. But at a subconscious level it stirs the rambling memories of visitors as one winds through the maze of saw cut openings and footbridges. Latz has allowed the relic to remain as an open-ended symbol in the landscape. In can contain multiple readings. The container of industry has become a container of culture. The creations of man reabsorbed by nature. The delicate

---


approach creates a dialog between the fragments, the interventions, and the inhabitants.

Decoding:

Sites like the Thyssen Steelworks are incredibly complex. The plant was created over a long period of time with an unwavering functionalist focus. Ideas of beauty, aesthetics, and meaning, in a creative sense, were never conscious motivations of the process engineers. The forms of the facility were created using the language of process engineers. The location of the gas holding tank, its capacity, and how it interfaced with other components in the plant no longer was maintained the same relevancy.

Therefore Latz need to decode the site’s layers. As stated by Udo Weilacher in Syntax of Landscape,

“The actual challenge for the landscape architect was firstly to understand the existing entanglement of functions and information layers in the ground, in order to work out how this industrial organism, formerly alive, used to function.”

And as Latz himself mentions, “I quickly realized that the team had to learn how the locomotive runs, and thus understand how the rail system functions, and its movement patterns. This was to produce one of the language layers, and it was essential to ensure that it was not destroyed at any point.”

It is important to note that he is not unraveling the entire knot of layers. In fact, it could be would argue, the layers are infinite. The methods of categorizing, prioritizing, and partitioning are subjective coping mechanisms for interpreting the complexity of place. Latz’s individual method of ‘coding’ is what ‘decoding’ is referring to. He is making sense of the maze of pipes, structures, machines and detritus using a delineated conceptual framework to guide his decisions.

Re-Coding:

Armed with a ‘decoded’ interpretation of the site, Latz distilled this information as a design approach to reveal a new stratum of meaning. The relics were reactivated using a new system of organization. The design did not come out of a direct one-to-one interpretation of the past layers; rather Latz selected what he interpreted to be the most formative layers of the system.

“These layers connect at certain points through specific visual, functional or merely imaginary linking elements. The uppermost layer is the railway park with the high-level promenades and the lowest layer is the deep-set water park. Other individual systems are the connecting promenades at street level, or the single fields and clumps of vegetation. All these different layers or single parks are connected by the system of linking elements.”

Latz categorized the existing elements and created new layers entitled blast furnace park, waterpark, sinter park, railway park, play points and ore bunker gallery. The design overlaid them on the existing industrial site and weaved them into the new landscape. The contrast functionally, symbolically, and visually links to the site’s evolving narrative.

An example is the promenades. Movement through the site echoes and resonates with established movement systems and corridors. Paths are not gouged into the existing conditions. In places like the sintering bunkers, where massive pits inhibited movement, the path of travel spans the deep recesses with delicate grated metal walkways. It pulls its language from the elevated nestle parallel to the new walkway. Latz has used the old logic of spanning via elevated path but with brightly colored metal luminous galvanized grating.

Landscape and Human Experience:
It is also important to note the human experience of landscape. In his book *Social Formation and the Symbolic Landscape*, Denis Cosgrove states that landscape is something we are a part of and within.\(^5\) There is a psychological component to the design. To merely level the structures and replace them with a more generic park would be ignoring the connection of the site to the psyche of the city. The process of healing was more about the healing of the relationship to citizens. A site that was once blighted and symbolic of a depressed region and people could be refashioned to heal both the physical landscape but more importantly the symbolic landscape.

Latz recognized the primary significance of being within the site rather than viewing it from a distance. Unlike Seattle's Gasworks Park, at this park visitors are given much more access and therefore freedom to explore the park. They touch the course walls that have been eroded by weather, materials, and machinery. They smell flowers in bloom amongst an aroma of decaying steel. They hear wind rustle through trees and whistling through girders.

\(^5\) Cosgrove writes: "That unifying principle derives from the active engagement of a human subject with the material object. In other words landscape denotes the external world mediated through subjective human experience in a way that neither region nor area immediately suggest. Landscape is not merely the world we see, it is a construction, a composition of the world. Landscape is a way of seeing the world!" See Cosgrove, Denis. *Social Formation and the Symbolic Landscape* (Trenton, New Jersey: Barnes and Nobels Books, 1984), 13.
Many buildings were adaptively reused for new park functions. This is a production hall that has been converted into a multi-use auditorium.

Remnants that make extents of former structure become opportunities for designers to highlight the industrial past. A grey concrete stump from a demolished stack is set against a soft field of purple lilac.

A diverse range of functions are inserted into Duisburg Nord to reactivate the abandoned industrial complex as a site of cultural engagement.
CURATORIAL APPROACH

Anonyme Skulpturen | Hilla & Bernd Becher

By the middle of the 20th century a shift was occurring in how art and design viewed waste landscapes. Hilla and Bernd Becher were significant luminaries in the art world and had cross-disciplinary influence. Bernd Becher was born in the Saarland state of Germany. The proximity of this childhood home to industrial production led to a sense of appreciation and curiosity for the forms and shapes. Enrolled at a local university he began recording the industrial sites via painting and sketching. When Bernd became frustrated with the lag between the medium of representation and the subject so he began using a camera to capture the subjects.

Hilla’s contribution to the couple’s work stems from her formal training at a young age in structured photography. The studio she trained in sent her into the neighborhoods of Potsdam to meticulously catalog subjects. Upon meeting each person’s specific talent and history influenced a unique form of seeing and representing that became the couple’s shared and lifelong passion.

Central to the work was the methodological approach (fig. 41). The rigor and fidelity to the medium and process was certainly rooted in the German tradition of categorization as pioneered by intellectuals such physiologist Johannes Peter Müller. The building subjects photographed shared the same phenotype. Examples included series in blast furnaces, lime kilns, and water towers. Many times within each category there were variations on a theme. The water tower, for example, was subdivided and categorized in series focused on cylindrical water towers, spherical water towers, concrete water towers, metal water towers, and wooden water towers. The comparative structure reveals the subtle differences between each variation of the building type and values them in a pure artistic light.

The Bechers’ technique intended to strip the photographs of subjectivity pushing to attain a non-style. Cropping it from the surrounding landscape decontextualized the structures. The framing severed its visual and cultural connections. Furthermore, reference points such people, birds, and seasonal effects were kept out of the work. This detached the subjects from their recognizable context and disarmed unwanted relationships. Additionally, subjects were always framed in the center of the image and were taken from a distance and at an alignment that rendered them as orthographic elevations. Lighting also played a key role in the process of stripping style. The Bechers arrived on site in the early morning to capture the subject in an even light on days with just the right level of overcast skies to give the appropriate backdrop for the shot.

The photographs of Hilla and Bernd Becher step back to observe and capture the subjects. It does not entangle itself in meaning by looking backward and forward. It looks at the subjects in the present as studies in rhythm, pattern, composition, and balance. All of the strict procedures and organizational methods were related to a specific intent; the reduction of subjectivity allowing the object to be valued in an alternate way and to reveal the “Anonyme Skulpturen” within.


2 One of their first collections of photographs showing a series of cooling towers and mine shafts. The title is meant to suggest they are only the authors of the images but the objects themselves are crafted anonymously. Duve, Thierry de. Bernard and Hilla Becher or Monumentary Photography (Berlin: Neues Publishing Company, 1993), 12.
CAPTURE

\{红 \times \text{style}\} \quad 12

\equiv

\equiv

CATAGORIZE

"ANONYME SKULPTUREN"

FIG. 41 | CURATORIAL APPROACH. The systematic process used by the Becher’s to render objects as sculpture through photography.

FIG. 42 | X. X

FIG. 43 | X. X

FIG. 44 | X. X

WASTE LANDSCAPES
Robert Smithson | Earthwork Art

Smithson’s work was reacting against art for the sake of art. He noticed a trend where the art was referencing itself. Art had become a series of signs only signaling itself. They were cut off from reality in stuffy museums and white box galleries and were readable only to those trained in the tongue of the self-referential language. Smithson’s art suggests a continuance. It is not isolated materials, constructions or histories but taps into an ebb and flow of matter and mind. Works such as Rock Salt and Mirror Square connect the Nonsite, the museum, with the materials native Site (fig. 45). The Nonsite is a subtraction of the actual site into an art context. It blurred the distinction between indoor and outdoor and created a dialog between Site and Nonsite.

Robert Smithson began questioning the picturesque and static notion of landscape and art. His work sought to depose Modernism’s dualistic method. He rejected the separation of man and nature. In his published writing “Entropy and New Monuments” Smithson used the concepts of energy, most notably laws of thermodynamics, to link the two. He envisioned man and nature merged as a single flow of energy. Human constructions yield to the same laws of energy decay. Rusting steel is no different than rotting flesh. The formation of landscape is an ongoing process that cannot be seen as a linear sequence resulting in a still climax but rather as non-directional, chaotic and variable series of events. Smithson sought to liberate scarred and wasted landscapes from the defined and limited values of Modernism, freeing them to have boundless valuation and a multiplicity of meanings.

Smithson’s work boldly contrasts the non-style of the Bechers by bombastically interjecting subjectivity into the dialogue between the site and the viewer (fig. 46). In projects like Glue Pour Smithson is highlighting the process of erosion that is occurring on the unprotected slope of this disturbed site. The glue, filling in the grooves, underscores the decay. Mira Engler describes this celebrative approach as sensationalizing the waste by focusing on the unique experience the art brings to the site 2. It renders the intervention into an icon provoking thought and meditation on the issues surrounding the waste. Where as the Bechers work pushed toward a non-style Robert Smithson’s work embraced style and its ability to interject a glut of concepts and readings. He mistrusted the interpretations that neatly stitched the story of our time together. Instead he embraced the entirety of history and its sometimes conflicting and contradictory trajectories. Rather than choosing the neat spaces for interventions he sought sites with complex, tangled, and layered histories. He tracked in the dirt and disorder of reality into the clean constructions of the Modernist mind.


FIG. 49 | SPIRAL JETTY. Great Salt Lake, Utah [1970]
CHAPTER TWO:
AN INTEGRATIVE APPROACH

A New Method

In Martin O’Brien’s *A Crisis of Waste* he suggests we are continually creating new and more complex methods of separating and categorizing waste. He states, “society does this to distinguish between product, the spaces of value, and the waste: the surplus that inevitably persists alongside the object of desire and wraps it in a valueless double. The latest transformation of in the rubbish aesthetic is … waste is life’s ever-present, haunting shadow.”

Creating a visual connection is central to the integrative approach. A mutually beneficial connection between nature and culture is key with places of work, habitation and recreation seamlessly coexisting. This fosters a connection that is both functional and poetically tactile. Engler states, “It invites people to partake in highly sensory and transparent landscapes. Above all it facilitates the flow of matter and substance in waste landscapes.”

The integrative approach downplays stylized form and returns to a revised notion of from follows function; the designs are less about new stylistic means of representation and more about increasing a design’s scope of impact.

Mira Engler suggests that the integrative approach might have traction in responding to the conditions of contemporary waste landscapes. The method still turns the modernist approach on its head like the post modernists but uses a multilayered, flexible and adaptable strategy to give the design more tools for success.

Fresh Kills Park, which is the former New York City Dump, stands as an illustration of this technique. The dump began operation in 1948 as Fresh Kills Landfill. Over the next five decades the park grew to over 2200 acres and became New York’s primary municipal dump until it closure in March of 2001. That same year an international design competition was held. The winning entry was submitted by Field Operations, which is headed by James Corner. The design creates spaces where people can actively contribute and engage the landscape. State of the art ecological restoration strategies are combined with a dense program of activities including recreation, public art, and facilities for sports programs that are unusual to the city. While nearly forty-five percent of the site was once used for the landfill operations, the remainder is composed of wetlands, open waterways, and lowlands.

Engler mentions that this design method does not rely on tried and true formulas for successful urbanization and remediation. Sites like Freshkills become community centers, meeting spaces and nodes of social activity within the framework of environmental remediation. She suggests that the designs integrate seemingly divergent spheres of thought such as art and science. In a sense, it is referring back to the dialectical approach employed by Smithson in that the integration occurs at the point of similarity despite their sometime contradictory approaches.

The interplay of the dormant dump and the design interventions open a dialog between site and a visitor experience. The strategy alters a waste landscape while amplifying the reality and readability of the design intentions.

A major focus of the design is its prioritization of a framework over form-based solutions. The site is quite large. Therefore the design incorporated several programmatic areas. These include nature, sports, festival space, arts, education, preserves, walking, and bicycling. These are then overlaid with an ecological strategy of threads, islands, and mats. Over time the programmatic elements and the ecological elements are woven together. The strategy recognizes that no solution will be completed as a single project. Instead it is treated as an ongoing project that enriches the cultural world through creative effort and imagination. It is phased over time to ensure flexibility in the future.

An integrative approach is less about the aesthetics of the landscape and more about the processes that engage and affect its context. The landscapes stylistic language, though an important participant, takes a back seat.
to the issues the design it is attempting to address through its efficacious elements. Rather than viewing a site and its design as a single, static moment in time Projects like Field Operation’s Fresh Kills Landscape Park in Staten Island plant the seeds of programmatic and physical succession in a framework of process. The design focuses on the cultural and ecological infill sequence and it’s phasing over several decades.

Another focus of an integrative approach is the treatment of landscape being deployed as an active participant in the change. Landscapes have the ability to have impact and create change. They are not simply reflections but also active instruments of shaping modern culture. It is a shift from a landscape as a result of cultural forces to a landscape that is able to exert force upon its culture. Sites like Fresh Kills Park become active agents of change. Landscapes transition from use as a noun where other disciplines display their work or hide their mechanical crafts to the use of landscape as a verb, as a dynamic process.

Georges Perec states, “the discovery of meaning, the perceiving that that the earth is a form of writing, a geography of which we had forgotten that we ourselves are the author.” Therefore waste landscapes are both reflections of how cultural values and at the same time the design interventions we introduce within them have the ability to reinsert authorship and the ability to create affective change.

10 Georges Perec, Species and Space, 79.
PART TWO
CINCINNATI’S MILL CREEK
CHAPTER THREE: DEFINING THE PROBLEM

The following chapter is devoted to describing the context that this thesis works within. The first section looks at the Mill Creek through it historically shifting value. What is revealed is that the contemporary conception has not been and should not be considered static. Value shifts with time and culture. The next section visually explores the watershed through the eye-opening perspective of aerial photography. Moving south to north the images narrate the story of a complex and contested constructed territory. Following the aerial photography is a section that expresses many pressing watershed issue though diagramming and mapping exercises. The striking graphics juxtaposed with dense layers of data illustrate the intricate and challenged connection of the Mill Creek to the landscape it weaves through. The final section briefly analyses the sites of intervention that this thesis has chosen.

THE MILL CREEK’S HISTORY

Shifting Value Over Time

Greater Cincinnati’s current population is just over 1.6 million people.1 Several counties have shown double-digit expansion rates while Hamilton County continues to shrink (fig #). One study by graduate students at the University of Cincinnati projects Hamilton’s 2020 population to drop 3% and with the city of Cincinnati dropping a staggering 35%.2 This population shift is indicative of a changing way of living, working, consuming and wasting.

Listed as the most endangered urban stream in America in 1997, the Mill Creek bears the scars of many generations of use and misuse.3 Prior to it being the foul polluted waterway we think of today it was a thriving waterway. Preceding the European colonization of the Ohio Valley, the Mill Creek was a flourishing conduit for native populations. One will quickly notice when traveling through Cincinnati that the city is set in the midst of undulating topography. Travelling the hills in swift car can numb an appreciation of how elevation change impacted previous inhabitants. The value of the Mill Creek was in its capacity as a navigable corridor. Due to glaciations the Mill Creek became a natural pass-through for north-south travel. It linked the larger population centers of the north with the Kentucky hunting ground in the south.4

Soon European settlers began to inhabit the area. The landscape was quickly identified as having great natural beauty but more importantly having plentiful resources. A quote from a European explorer’s notebook:5

[The land is] well timbered with large Walnut, Ash, Sugar Trees, Cherry Trees &c, it is well watered with a great Number of little Streams and Rivalers, and full of beautiful natural Meadows, covered with wild Rye, blue Grass and Clover, and abounds with Turkeys, Deer, Elks and most Sort of Game.

Tapping into this resource John Cleves Symmes was able to create the Miami Purchase. From this he sold chunks of land to prospective settlers. He generated interest in the land around the Makatewa by rebranding its name. It was at this point that it became the Mill Creek6. This name implied a productive value; that the creek was a site for industry and manufacture.

As settlement increased tension between the native populations and pioneers developed into armed conflict. Going up the Mill Creek in the early years form the settlements at Ohio River to points such as Northside proved quite dangerous. Multiple campaigns to rid the land of natives were waged and by 1794 a treaty had been signed and the Makatewa Valley was open for business.7 It is clear that the American thirst for new land and resources for a growing population and burgeoning industrial base came at the expense of native populations. Consumption had led to eradication.

The Mill Creek valley became the first land to be extensively farmed.8 As the land was cleared for agriculture the timber was harvested to produce building materials for Cincinnati’s expanding city9. Additionally the mud associated with the floodplain was converted into bricks. Masonry homes were desired over timber home and were replaced over the years. In the 1790’s it was reported that a person could travel the length of the Mill Creek without ever leaving the shadow of the forest canopy. By 1880 fifteen percent of the original forest remained and buy 1915 zero percent remained. The consumption of forest for use as farmland fed the increasing appetite of an expanding nation as it strove to achieve its Manifest Destiny.10 Related to the loss of forest the habitant of many species rapidly disappeared. Many common animals such as bears, wolves and passenger pigeons become extinct from local habitats. The integrity of the biological base has been irreparably destroyed.

This begins to reveal a clarified picture of consumption for this time period. It was about the creation of a subsistence base with the goals of expanding it to profit from an growing nation. The native populations and biological diversity were set as subservient to the desire for expansion. The economic foundation put in place so the Mill Creek could develop into an industrial machine.

The Mill Creek no longer functioned as natural stream. Its value was not as beauty but in its capacity to sustain industry. Once the path of the Great Miami River, after glacial movements the Mill Creek Valley was left with a wide flood plain and ample level ground in close proximity to a constant source of water. Additionally, as mentioned earlier, it was a natural thoroughfare for travel because of its gradual slope through the city’s many

---

1 Data collected from U.S. Census Bureau
3 Conservation group American Rivers designated the Mill Creek the “most endangered American River.” in 1997.
surrounding hills. This was a recipe for industrial success and was quickly capitalized on.

The Miami and Erie Canal was constructed largely parallel to the Mill Creek crossing over it at several points as it made its way north through a series of locks. It became clear on July 27th, 1845 why the Mill Creek was so important to the economic base of the area. It was on this date that the first canal boat arrived in Cincinnati from Toledo via the Miami and Erie Canal. The scope of connection to the economy becomes larger in scale and more interconnected. The Mill Creek became part of the nationalized economy. It literally links Cincinnati to other canal projects via the hub of the Great Lakes. Goods move over great distances.

The Mill Creek became the site of much industrial diversity. By 1830 Cincinnati was the 8th largest city in the United States and the largest inland city. After the completion of the Miami and Erie Canal and the development of rail connections, the population grew to the sixth largest in 1850 and continued to rank in the top ten for the entire century. Clearly with such close proximity, the city had a diverse industrial base. Connected to the large amount of corn production, the Mill Creek became a center for meat processing. Additionally, there were multiple distilleries to wet the tongues of thirsty workers, leather producers, soap manufacturing, and glue manufacturing. This list of the main producers reveals the interconnection of production. In 1913 the slaughtering of animals totaled 4,731 hogs, 1,642 cattle, 1,105 sheep and 852 calves. Meat processing was the central industry.

Similar to the way other modern-day businesses follow Wal-Marts, other industries tied into the waste streams and overlapping flows of materials in present in the Mill Creek. Did the creation of waste produce new opportunities for consumption? There is obviously need for adhesive and soaps but how much was driven by surplus waste streams recapitalized as avenues for product development? No matter what the answer is, the impact on the Mill Creek Valley is clear. By the beginning of the 20th century, the Mill Creek had become a thriving hub of commerce connecting Cincinnati to the industrializing nation. But, as Chamber of Commerce stated in 1914 "the dirty fetid stream of today is the martyr of the onward progress of civilization."

Reconstructions—Shifting Value:

The following descriptions of the urban fabric surrounding the Mill Creek are based off of a partial historical reconstruction of Spring Grove Avenue. Spring Grove Avenue was chosen due to its long history as a parallel road to the Mill Creek. Due to limitations in available resources, three time periods were chosen. The earliest available city directory was the 1938 Williams Cincinnati Directory. This reconstruction focuses on the fully industrialized Mill Creek prior to World War Two.

The second reconstruction was created using the 1978 Williams Directory. This reconstruction focuses on the deindustrialized Mill Creek and its relationship to a shrinking industrial city.

The final reconstruction was created using the 2003 Polk Cincinnati Directory, as is the most current printed copy available. This reconstruction focuses on the current state of the urban fabric along the Mill Creek.

For all reconstructions please refer to Appendix 3.

Reconstruction #1

During 1938 the US was escalating industry for a looming war. Cincinnati was the 17th largest city in the United States. At first glance it is clear that Spring Grove Avenue was a thriving industrial artery. The reconstruction suggests the 2100 to 2900 blocks there were over 300 residents interspersed with 57 businesses and a cultural site. Within those residential entries the directory suggests that those who lived there also worked there. This was not a bedroom or commuter community. Residents lived and worked here. The types of jobs were mostly manufacturing. Types included multiple machine shops, a feather factory, several pattern companies, foundries and laundry supplies. Construction-related businesses had a few listings with a stone works and general contractor's central office. Also, the transportation industry can be quickly observed. There are several trucking companies and rail depots listed. There are a few car-related addresses such as a brake shop, filling station and an automotive salvage company but largely the sense is that there is still an intact multimodal transportation system (the central rail yard for the street car system is at 2216 and many would have just walked to work.) In addition to what is there should also be an accounting of what is not. This reconstruction shows only 6 vacant addresses along the length of the reconstruction. Overall, the reconstruction portrays an urban fabric that is quite diverse with living and working space interspersed. Additionally, there are a recorded 159 active addresses, which shows the fine grain of the area.

Reconstruction #2

By 1978 the Mill Creek had undergone significant changes. Cincinnati had fallen to the 29th largest urban population. The Mill Creek and Spring Grove Avenue showed significant signs of the shifting economy and consumer wants. The formerly thriving avenue was losing its residential population. Along the same stretch of Spring Grove there were only 9 residents listed. This shows a 97% decrease in total population. There is still significant numbers of commercial and industrial activity with over 46 businesses. Where did all the workers go? To the suburbs!

Post World War Two the America was inundated with the wealth. The US did not have massive war reconstruction projects so money was pumped into sprawling housing development and the interstates to connect them. The United States had become a commuter community. The fabric of the Mill Creek attests to that narrative. The former streetcar depot at 2216 Spring Grove disappears from the city directory. The streetcar lines have been ripped up by big auto. Multimodal transportation disappears and is replaced by commutes from one single use zone to another. It is a compartmentalization of urbanity.

Mixing is seen as dirty and unwanted. In the Williams directory auto parts distributors appear and parking lots for commuters annex the housing that once populated the factories. Vacancy rates go up 260% largely related to abandoned residential properties. Additionally, the number of recorded addresses decreases 46% to 85. This reinforced that notion of dereliction and rezoning. Many of the properties listed are annexes for other industrial complexes. With the residents gone, the producers can consume more land. The desire for a piece of the American Dream in partially realized by the consumption of surrounding counties' green fields at the expense of the historic

---

12 Data collected from U.S. Census Bureau.
Additionally the dirtiness of civilization, the shame of Cincinnati’s industrialization is marginalized and goes largely unseen and smelled with the exception of an occasional Enquirer cartoon or exposé.

Reconstruction #3

The 2003 reconstruction continues the trend of deindustrialization. Cincinnati is listed as the 53rd most populated city.17 It no longer needed as an industrial producer. By 2003 Spring Grove Avenue had lost 69% of its original recorded addresses. Despite several manufacturers remaining most have closed shop or moved. Spring Grove Avenue has become a clog in a multinational logistical stream. The addresses in the directory are populated by an increasing number of distribution related businesses. Whether it is auto part sales or a warehouse of chemicals the area has become a liminal location. The consumer culture demands ever cheaper and more expedient goods. This is met by a globalized production and supply chain that sites like 2530 Spring Grove Avenue (Advanced Auto Parts) meet the requirement of being located within an area where automotive and trucking repair is essential to keeping fleets up and running. (2618) A machine shop is replace by an asphalt contractor. They feed the need for roads to keep the trucks rolling and the widgets selling. (2201) A textile manufacturer is replaced by a document storage business. This is where the otherness of consumption is stored. By this estimation the current population of this stretch of the Mill Creek is zero. No one live here. Few people work here. No one recreates here. This is a no man’s land in a Rust Belt city.

Thoughts on the Reconstructions and Implication on Current Values

A city must waste to grow. According to van Loon waste is central to culture because it ‘liberates a conception of a beyond, of traces, of unknown consequences, of the hidden, the repressed, the invisible and the different’.18 The denuisity of life becomes fodder for the emergence of new beginnings. If we clean cities of these sites of waste we deny the possibility of for innovative thought. Waste is part of productive space as carbon dioxide is to our respiratory process. The Mill Creek’s current state comes from a direct relationship to the shifting context of American consumption. From native subsistence to pioneering promise, from feeding economic foundations, to being fed industrial effluent the Mill Creek’s history is closely tied to shifting values. In its current state what value is present?

Mill Creek Value - Businesses:

Much of what occurs within current regulations resolved around the logistics and a hodgepodge of industrial production. The Mill Creek is valuable to the logistics because of its central location, cheap land and connections to multiple modes of transportation (Interstate 75, 74, CSX rail terminal). Industrial production values the Mill Creek for its historical proximity other industrial entities, the lack of connection and therefore compliant from neighborhoods. Historically it was valued as an open sewer for industrial byproducts. It has been a cheap place to dump materials. Additionally there is dormant value in the abandoned and underutilized buildings. They pose the potential to become reused for new businesses.

Mill Creek Value - Ecosystem:

In its current state depending on where you are the Mill Creek’s natural ecosystem can be described as drastically undermined to irreparable destroyed. In its current state the Mill Creek has value to the structures that exist beyond its watershed. As most of the city developed and continues to ignore best practices in waste and water management the Mill Creek becomes the focal point for the downhill slide of environmental responsibilities. Storm water overflows the combined sewer system, ejecting raw sewage into the waterway. The Mill Creek is sacrificed for the good of the city. In a more forward looking way the mill Creek is valuable as a natural filter for toxins both manmade and natural. With progressive improvements the waterway has been minimally restored granting limited capacity as a healthy ecosystem that can provide value in its capacity to sustain fauna and flora.

Mill Creek Value - Citizens:

There is a limited amount of housing along the Mill Creek. What housing there is must be cheap. There seems to be a homeless population spread along the creek under overpasses, bridges and even in open areas sleeping in tents. This is also a great place to dump ones trash, yard waste, appliances, spent mattresses and furniture, etc. The landscape is littered with trash. It is also a place where exiled activities can occur. Children shoot at geese with their fathers cheering them on and prostitutes turn tricks in Johns’ cars and trucks. Many activities not accommodated by normal space are readily received by this space. There is a slight recreational value to the creek. A spoof group, The Mill Creek Yacht Club sponsors canoe trips down stream to survey the state and history of the creek. The existing abandoned an underutilized buildings also offer value for potential use as new places of residence or cultural activity (museums, studios, etc.)

Mill Creek Value - Infrastructure:

The Mill Creek is essentially an open sewer at times. This is a cheap way to shuttle shit downstream with out a paddle. Being the natural place that the ground water for some half of a million people flow to the treatment plant takes advantage of the level low ground near the mouth at the Ohio River. The interstate and rail travel along the valley floor since glaciations and hydraulic erosion have created a natural more level path though the hilly landscape that makes up the Cincinnati. Future plans call for the “Greenway” to travel along the waterway.

Mill Creek Value - Others

There seems to be a need to have such sites. If economies are going to shift with no consideration of site legacy them places such as the Mill Creek will always exist. The state of the Mill Creek is not a unique situation. Its brother is the abandoned automotive plants of Detroit, the vacant shopping malls of Los Angeles, the overgrown runways of the Cold War. Waste is a product of production. It should not be demonized or glorified. Waste is ubiquitous. Waste is. For designers it is not a question of good or bad but what value does waste have and what can those values produce through architectural inquiry and intervention. Value of vacancy?

16 See Appendix 4; Illustration shows the decline of Hamilton Counties population while the surrounding counties experience double digit growth rates.
17 Data collected from U.S. Census; http://www.demographia.com/db-uscity98.htm
FIG. 26 | MAP OF THE CITY OF CINCINNATI

(Left) From actual survey by Joseph Gest, city surveyor, 1838; engraved by Wm. Haviland. (Right) Image from Google Maps circa 2006. The shifting value of the land has drastically changed the Mill Creek.
As James Corner suggests in *Taking Measures Across the American Landscape*, Le Corbusier reflected upon his new perspective and experience aloft as planes become commonplace in the skies of modern cities. He believes that these new views give a designer an alternative vision of the urban landscape, he writes: “It is an architect and town-planner and therefore as a man essentially occupied with the welfare of his species that I let myself be carried off on the wings of an airplane, make use of the birds-eye-view from the air.” Aloft “the eye now sees in substance what the mind could only subjectively conceive; the view from the air is a new function added to our senses; it is a new standard of measurement; it is the basis of a new sensation. Man will make use of it to conceive new aims. Cities will arise out of their ashes.”

A territory is defined as a figurative or conceptual area of collective knowledge, activity, and experience. It is also an area under the jurisdiction of a controlling party. It implies a certain degree of responsibility. When prefaced with the word ‘constructed’, territories take on a more structured meaning. It suggests degrees of orchestration, intent, time and most importantly authorship.

Aerial photography provides new perspectives of our urban landscape and boldly confronts how we characterize our responsibility to it. Through the reframing of the everyday landscape it narrates our constructed territories.

The following images were taken from a low-altitude flying south to north along the Mill Creek. I would like to give special thanks to Bill Schmidt for his gracious contribution of flight time and calming effect during my inaugural helicopter flight. All photographs were taken with a Nikon N70s w/ Tamron 10-24mm 1:3.5-4.5.

MILL CREEK OUTLET AT OHIO RIVER: THIS IS THE TERMINATION OF THE MILL CREEK. THE BARRIER DAM CAN BE SEEN AS WELL AS THE CSX TRAIN TERMINAL AND METROPOLITAN LEWIS DISTRICT WASTE WATER TREATMENT PLANT.
WASTE WATER TREATMENT PLANT: THIS IS THE EVENTUAL HOME OF THE MAJORITY OF WASTE WATER CAPTURED IN THE MILL CREEK WATERSHED.
NEARLY 500,000 PEOPLE LIVE IN THE CONFINES OF THE MILL CREEK WATERSHED. WHILE A FEW NEIGHBORHOODS LIKE NORTHSIDE AND ITS 13,000+ RESIDENTS LIVE IN CLOSE PROXIMITY TO THE STREAM, THE LARGE MAJORITY LIVE MILES AWAY. THE MILL CREEK IS RARELY NOTICED EXCEPT FOR FAINT GLIMPSES AS COMMUTERS CROSS ITS BANKS ON ELEVATED EXPRESSWAYS.
NORTHSIDE: THE MILL CREEK AS IT PASSES THROUGH NORTHSIDE.
I-74: THE MILL CREEK PASSING UNDER THE I-74 INTERCHANGE. MOUNT AIRY FOREST CAN BE SEEN AS THE INTERSTATE MOVES WEST.
SPRING GROVE CEMETARY: THE MILL CREEK PASSES BY THE 733 ACRE SPRING GROVE CEMETARY, FINAL RESTING PLACE OF MANY CINCINNATIANS. CLEFTON TO THE RIGHT AND ST. BERNARD IN THE DISTANCE.
MITCHELL AVENUE EXIT: I-75 TWISTS ALONG THE MILL CREEK BASIN. THE PROCTOR & GAMBLE FACILITY AT IVORDALE CAN BE SEEN IN THE DISTANCE. MANY OTHER MAJOR INDUSTRIAL FACILITIES STRADDLE THE MILL CREEK INCLUDING GENERAL ELECTRIC, SHEVIN-WILLIAMS, AND ANDREW JERGENS.
ST. JOHNS GERMAN CATHOLIC CEMETARY: CINCINNATI'S POPULATION GROWTH AND INDUSTRIAL MIGHT WAS FUELED BY A CONSTANT STREAM OF IMMIGRANTS, MANY FROM GERMANY. IN THE DISTANCE IS THE PROCTOR & GAMBLE FACILITY.

P&G IVORYDALE COMPLEX: THIS FACILITY IS A MAJOR PRODUCER OF SOAPS AND DETERGENTS AND ALSO PRODUCES INDUSTRIAL COMPOUNDS THE COMPANY USES AND SELLS TO OTHER FACILITIES.
CENTER HILL MUNICIPAL DUMP: FORMER DUMP FOR THE CITY OF CINCINNATI, THE DUMP WAS CAPPED AND CLOSED AND IS MONITORED. ONSITE THERE IS A LARGE EPA RESEARCH CENTER. CURRENTLY SOLID WASTE IN THE GREATER CINCINNATI AREA IS SENT TO THE MT. RUMPKE DUMP IN COLERAIN TOWNSHIP NEARLY 15 MILES NORTHWEST.
VILLAGE OF ELMWOOD PLACE: At the bridge in the picture the Mill Creek transitions from a engineered channel to a more natural construction. The waterway has been significantly altered over the past 175 years and in the past was listed as the most endangered urban waterway in America.

CROSS-COUNTY HIGHWAY INTERCHANGE: The Ronald Reagan Highway is a major east-west connector. Several major interchanges occur over the Mill Creek including I-74, US-126, and I-275.
CITY IMPOUND LOT: THERE ARE NUMEROUS SITES ALONG THE MILL CREEK WHERE COMMODITIES ARE STORED AND TRANSFERRED. THEY ARE TEMPORARY ZONES WHERE OBJECTS AND SPACES AWAIT THE ASSIGNING OF VALUE.
CROSS-COUNTY HIGHWAY INTERCHANGE: THE MILL CREEK QUIETLY RAMBLES AND MEANDERS BENEATH THE HUM OF STEEERING INTERSTATE TRAFFIC.
INTERSTATE BRAID: THE WATERWAY, INTERSTATES, AND RAIL LINES WEAVE BACK AND FORTH ALL THE WAY ALONG THE MILL CREEK VALLEY.
WAL-MART: THE CREEK NEAR A NEWLY COMPLETED SUPERSTORE. WHAT IS THE RELATIONSHIP BETWEEN CONSUMPTION AND WASTE?

INTERSTATE 275: UNDER THE SECTION OF THE INTERSTATE IN THE DISTANCE IS RAPIDLY EXPANDING BUTLER COUNTY. BUTLER COUNTY IS THE LOCATION OF THE HEADWATERS OF THE MILL CREEK. AS HAMILTON COUNTY'S POPULATION SHRINKS AND BUTLER'S INCREASES HOW DOES THE RELATIONSHIP AND RESPONSIBILITY TO THE MILL CREEK CHANGE?
FIELDS: THE MILL CREEK AS IT PASSES THROUGH FIELDS IN SOUTHERN BUTLER COUNTY NEAR ITS HEADWATERS. THIS AREA HAS SEEN A DRAMATIC RATE OF DEVELOPMENT. THE FIELDS ARE SOON TO BE DEVELOPED (TBD). WHAT IS OUR RELATIONSHIP AND RESPONSIBILITY TO THE URBANIZATION OF THE WATERSHED?
INDUSTRIAL PARK: According to data, the Mill Creek Watershed is more than one-third covered by impervious surfaces. This is a major contributor to combined sewer overflow (CSO) events during peak loading.
TRANSPORTATION OF COMMODITIES: The image above indicates the various systems used to move commodities into and out of the Greater Cincinnati Area. Additionally, it illustrates the top 20 commodities shipped in and out of the area.
**LAND USES IN THE MILL CREEK WATERSHED**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acres</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deciduous Forest</td>
<td>21858.5</td>
<td>20.79%</td>
</tr>
<tr>
<td>Pasture/Hay</td>
<td>6311.4</td>
<td>6.0%</td>
</tr>
<tr>
<td>Low Intensity Residential</td>
<td>33912.3</td>
<td>32.26%</td>
</tr>
<tr>
<td>Row Crops</td>
<td>9850.1</td>
<td>9.37%</td>
</tr>
<tr>
<td>Commercial/Industrial/Transportation</td>
<td>18477.1</td>
<td>17.58%</td>
</tr>
<tr>
<td>Urban/Recreational Grasses</td>
<td>5656.3</td>
<td>5.38%</td>
</tr>
<tr>
<td>Woody Wetlands</td>
<td>182.0</td>
<td>1.7%</td>
</tr>
<tr>
<td>High Intensity Residential</td>
<td>7592.6</td>
<td>7.22%</td>
</tr>
<tr>
<td>Evergreen Forest</td>
<td>653.7</td>
<td>0.62%</td>
</tr>
<tr>
<td>Open Water</td>
<td>554.2</td>
<td>0.53%</td>
</tr>
<tr>
<td>Mixed Forest</td>
<td>179.1</td>
<td>0.17%</td>
</tr>
<tr>
<td>Emergent Herbaceous Wetlands</td>
<td>57.3</td>
<td>0.05%</td>
</tr>
</tbody>
</table>

**28.8% IMPERVIOUS**

**71.2% PERVIOUS**

**SURFACE TYPE ANALYSIS:** The watershed of the Mill Creek is no longer resembles its natural past. Over the past 200 years, the surface has been altered in a way that the watershed acts as an artificial landscape supportive of the expanding population within its borders. Data collected from the appendix to the Total Maximum Daily Loads for the Mill Creek in Butler County and Hamilton County.
TOTAL COMMODITIES INTO CINCINNATI
36,071,165

TOTAL COMMODITIES OUT OF CINCINNATI
23,622,310

COMMODITY FLOWS: The top 20 commodities into and out of the Cincinnati BEA. Units in tonnage.
POPULATION FLOWS: Between 1900 and 2000 the population of the counties that inhabit the Mill Creek watershed drastically restructured.
JURISDICTIONS OF THE MILL CREEK WATERSHED: The Mill Creek watershed is composed of 36 political jurisdictions and has more than 455,000 residents with its borders. On June 21, 1995, representatives of 17 political jurisdictions met on the banks of the Mill Creek and signed a unique and historic intergovernmental agreement. They pledged to work together to save the creek and its drainage area. The Mill Creek Watershed Council was formed. Currently there is one full-time member assigned to the organization.
ANATOMY OF GLOBAL SOYBEAN TRADE: The diagram above shows the relationship between the proposed intermodal port along the Ohio River at the Mill Creek and global trade and routes in the soybean commodities market.
The Mill Creek Basin was created by several periods of glaciation. Upon first arriving in the valley settlers were astonished by the discrepancy between the stream's small size in comparison to the wide and deep valley. It was later discovered that the Mill Creek follows in the former channel of the Kentucky's Licking River. When the hills of Cincinnati were shifted by massive ice flows the Ohio flowed further south and the Licking dumped into the Ohio at what is presently Covington. The remaining waterway to the north was cut off and the Mill Creek flowed through a river's path.

Today this can be seen at site 0.00 Ohio River Confluence. The topographic map shows the relatively flat terrain that makes up present day Queensgate and Lower Price Hill. Consistently flooded by both the backing up of the Ohio River and the surging of the Mill Creek during peak loading events the area developed as a place for sprawling warehouses and lots as well as train yards and transfer terminals. After the flood of 1937, which submerged the valley as far north as Northside 6 miles inland, the Army Corps of Engineers developed and implemented a flood control design. The Mill Creek Barrier Dam was created along with a system of metal and concrete levees along the Ohio River. In the event of a flood the gates could be closed to seal the valley from flooding. Also of interest is the drastic elevation change from the flood plan to Price Hill to the west. The view overlooks the entire flood plain downtown, and surrounding hills.

Site 6.35 P&G Ivorydale Production Complex is situated where the hills pinch in on the valley floor. This provides locations where glimpses of the industrialized valley can be captured. Several runs for water can be seen flowing toward the Mill Creek. Many of these have been covered over, rerouted or even eliminated.

Site 15.84 Sharonville has topographic that is the most divergent from the previous two. It is more of a rolling plain. Views of the waterway are harder to find, as the elevation change is less dramatic. One location that does provide the necessary change in elevation is the interstates that move through the site. Also views of the site can be taken from more distant hills such as Becket Ridge several miles north and west in West Chester. The Mill Creek itself begins to break up at this point and become a series of streams that bifurcate into the agrarian, low-density residential, and light industrial landscape.
1. VIEWS: These elevated areas have multiple vantage points to view the industrial valley below.

2. MILL CREEK: This portion of the waterway transitions from a more picturesque setting to an industrial channel.

3. INDUSTRIAL VALLEY: Since the late 1800s the valley has increasingly been the site for industrial production and logistics related activities.

4. FLOOD PLAIN: Area designated as flood prone.

1. MILL CREEK: This is near the beginning of the waterway. The water begins to infiltrate as its source becomes increasingly diffuse and inconspicuous.

2. ELEVATED INTERSTATE: The interstates are elevated above the surrounding context and serve as the best vantage point to view the Mill Creek watershed.
Cincinnati has a significant presence of historic buildings and urban fabric as well as many interventions and developments that are continuously updating the urban landscape. The Mill Creek Basin is no exception.

Site 0.00 Ohio River Outlet has all era’s of buildings and urban fabric. It is both the most diverse buy also the most fragmented. Directly adjacent to the Mill Creek there is very little development. This is not surprising since the area was prone to large floods until the completion of the flood control systems of in the 1950’s. The Metropolitan Sewer District calls this area home as well as the CSX train yard. Further away from the waterway and as the grade rises to the west Lower Price Hill has a mixture of nineteenth century housing and industrial buildings. Continuing further west there is a break in dense development as the hill to Price Hill steeply climbs. At the top it is largely housing. To the east of the Mill Creek there are large industrial warehouses an. The fabric is more industrial. Further east is Interstate 75 which gouged the dense west end neighborhoods an severed the Mill Creek from the downtown.

Site 6.35 P&G Ivorydale Production Complex has a figure ground that jumps off the page. Large and dense industrial complexes line the Mill Creek. To either side in up the hillsides residential zones overlook the sites of production. Large zones are void to accommodate the Intestate as it winds back and forth along the waterway and adjacent to industrial zones.

Site 15.84 Sharonville is best characterized by the lack of density. When the previous site were at their highest level of productivity and density the 15.84 was almost completely rural farmland. With less dense urbanization after the Wars, the area was planned and built around the car. Wide berth was given to the road access. It was much more diffuse, organized, and regularized.
The selected sites have several rail conditions. **0.00 Ohio River Confluence** has historically been a location for large-scale rail yards. The proximity to the urban core, centers of production, and flat cheap land made it prime real estate rail lines. Over the years many lines have been abandoned and remnants can still be found on the site. The site operates in a more radial manner. The rail yard is the center and the lines radiate out north south, east and west to connect to the larger regional and national network. This also creates a separating buffer from the Mill Creek and the west side of Cincinnati.

**6.35 P&G Ivorydale Production Complex** is a node in the rail network. While it is a major local site for Proctor it is really a private yard. It is along a major north south rail line so it has a linear flow.

**15.84 Sharonville** is lightly touched by rail. Rail mainly passes through the space on the way to other locations. A few spurs exist but the road network of the Eisenhower Interstate System serves most sites.
Site **0.00 Ohio River Confluence** has roads from the early platting of the Cincinnati downtown, roads related to urban renewal of the middle 20th century, and roads that infill between. Being in the flood plain and having major sites of infrastructure the east and west sides of the site are stitched together by three major viaducts and roads. With these the motorist it lifted above the mess of the ground level and quickly shuttled through the waste landscape.

Site **6.35 P&G Ivorydale Production Complex** is also a combination of preindustrial trade routes, 19th century planning, interstate gouging, and infill. There are several bridges that briefly traverse the Mill Creek unlike the viaducts from **0.00** that have an extended sequence of crossing. Also the roads must respond to the variables associates with the topography, rectilinear planning, and industrial needs.

Site **15.84 Sharonville** largely ignore the Mill Creek. The roads shoot straight over the waterway with little fanfare. The interstate dominates the image. Motorist rapidly move in all the cardinal directions never seeing the Mill Creek. The road network is operates in a more hierarchical manner. Interstate to major road, to sub major to private land to private drive.
Site 0.00 Ohio River Confluence is largely characterized by parcels defined by 19th century planning. Small, by today’s standards, narrow rectangular lots. As the city deindustrialized the lots were abandoned and absorbed by growing industrial complexes. Fewer businesses in larger space dominate the landscape surrounded by abandoned buildings and vacant lots.

Site 6.35 P&G Ivorydale Production Complex is similar to 0.00 but the lots near the Mill Creek are quite irregular. This is probably from a combination of geographic factors related to zoning a flood plain and industrial factors as the complexes were sprawling and have absorbed lots over time. Residential lots with more regular geometry exist on the edges of the site.

Site 15.84 Sharonville has parcels born out of planning from the postwar era. Large lots to accommodate car-centric developments and larger residential only zones with curvilinear streets and cul-de-sacs that mimic Olmstedian pictorial landscapes.
CHAPTER FOUR:
DEIZING ALONG THE MILL CREEK

Site Selection Process

A primary topic explored within this thesis is the relationship between and the Mill Creek and its contributing watershed. The Mill Creek watershed has an area of approximately 166 square miles. Nearly 500,000 people live and work inside this area. The watershed’s network of hydrologic features pass through thirty-seven separate political jurisdictions (fig. #). A process for selecting where the thesis design would intervene is required due to the complexity and contested nature of the urban space.

Almost any architectural “solution” to problems of the Mill Creek will be limited in their capacity to produce meaningful change in the surrounding watershed. The scale and complexity of the issues of watershed management require designers to relinquish the desire to consolidate control into a single architectural form. Instead this thesis has chosen sites along the Mill Creek as place to reintroduce a public realm into the marginal landscapes through designs that prioritize process over form. The resultant work seeks to expose and modify our obstructed relationship to waste.

As a starting point the design uses the proposed greenway as an infrastructural backbone to the projects (fig.##). While this thesis questions its capacity to create affective change through its reliance on the restoration of the “natural”, it does not question its ability to physically and conceptually link a multitude of sites and conditions along the waterway. The Mill Creek Greenway has procured many sites along the proposed route and is in the process of developing these into a continuous corridor. The thesis design builds off of this greenway route.

Using Geographic Information Systems (GIS) all public parkland in Hamilton county was identified (fig.##). This significant area was then reduced to those sites that were also within the confines of the Mill Creek watershed (fig.##). The next factor was the adjacency of the properties to the Mill Creek. All sites that did not have abutting edges to the Mill Creek were eliminated. What remained were the final fifteen sites explored by this thesis (fig.##). They account for less than two percent of the total watershed area.

Stitching the Urban Fabric

One of the main limitations of the Mill Creek Greenway Master Plan is its narrow attempt to operate beyond the site boundaries. As the route moves along the Mill Creek its programmatically remains single-minded in it approach, only using recreation as the vehicle for public engagement with the landscape. As the green line unfurls along the waterway it operates with blenders as it passes scrap yards, waste treatment facilities and abandoned buildings. These are missed moments to interact the characters in marginalized landscapes.

At a macro level this thesis seeks to stitch the urban fabric through the use of programming that engages the surrounding context (fig.##). When the fifteen sites are inserted along the length of the Mill Creek the obstructed relationship is challenged by a new way of seeing and acting within the landscape.

At an individual site level, the design process occurs in several steps (fig.##). First, the base condition of the site is identified. Secondly the planned route of the greenway is overlaid onto the site. Third, using the site selection process from earlier, the available public space is inventoried. Next the adjacent programming is inventoried. The intent is to use program as tool to see how the landscape was valued in the past, present, and future. The fifth step is linking the site functions into the larger issue of watershed management. An environmental mechanism is embedded in the site to contribute to the health of the watershed as a whole (fig.##). The intent is not to “fix” or “restore” the landscape but rather recognizes the capacity of a design to contribute to health of the watershed as a whole. This ecological feature is intended incrementally change the watershed. This approach prioritizes many small contributions over large and heavy-handed singular solutions.

The next step is the introduction of the public realm. New activities such as canoe launches, interpretive centers, educational signage, and recreational areas are imbedded in the sites. Through the layering of a multivalent programs centered on ecology, education, culture, and economics the sites will be in motion by a diverse number of activities. Finally, the site does not exist within a vacuum. As mentioned earlier, the Greenway Master Plan has a limited engagement with the surrounding context. The goal of this thesis is to link adjacent program to the sites to strengthen the bond between the sites and their local conditions (fig.##).

Kit of Program

The fifteen sites selected along the Mill Creek exhibit a wide range of characteristic and challenges for designers. No one site is exactly the same. It is for that reason that the method of this thesis uses a Kit of Program to interface with each site’s unique condition (fig.##). The programs are divided into four categories.

Ecological Program: The intent of these elements is to contribute to the environmental quality of the watershed. They might be thought of as small filtering devices. The types of program include constructed wetlands, flood plain restoration, bio-filter terraces, and tree nurseries.

Economic Program: This program recognizes the realities of an urbanized watershed. To produce a more healthy and symbiotic relationship between culture and nature, we must recognize that elements of production can exist within a watershed. The types of program include development lots.

Educational Program: Key to the success of the long-term goals of the Mill Creek watershed is the conveyance of information to its inhabitants. To accomplish this the program can be seen as operating at two levels. The
most obvious educational elements would be items such as billboards, informational signage, interpretive exhibits, etc. But at a subconscious level the education is that which is engaged by traveling through the sites. The experience of a site through our eidetic memory vividly exposes us to the challenges and reactions to an urbanized watershed.

_Cultural Program:_ Central to this thesis is the relationship between culture and nature. Our urban landscape is a form of writing and we are its authors. The incorporation of culture into the sites was of central importance. The types of program include an interpretive center for the Mill Creek’s history, an new home for the governing body of the Mill Creek Watershed Council, canoe launches, observation platforms, produce markets, etc.

The goal of the integrative approach is to use a multivalent program to deemphasize centralized, hierarchical and homogeneous responses (fig. #). Instead moments of simultaneity and productive conflict are created and encouraged.

**Kit of Parts**

Due to the fact that the design occurs on several sites over many miles rather than one self-contained location, the intent of the Kit of Parts is to share a common architectural language and construction strategy across the multitude of places. This strategy uses a common tectonic language to inform the visitor that they are within an intervened site and to create a visual unity amongst the wide range of program, contexts, and parts (fig. #).
Our culture has constructed barriers both conceptually and physically that separate us from our waste. The reintroduction of the public realm links normative space with waste landscapes.

FIG. ## | UNOBFECTING THE MARGINS. The reintroduction of the public realm links normative space with waste landscapes.

FIG. ## | KIT OF PARTS. The thesis works at fifteen sites along the Mill Creek. Operating across such a vast area the design works with a common architectural language to unify the vocabulary of the sites.

FIG. ## | KIT OF PROGRAM. This is an image of the system map.
FIG. # | LOCAL SITE PROGRAMMING PROCESS  The reintroduction of the public realm links normative space with waste landscapes.

FIG. ## | MACRO SITE STRATEGY  (1) Greenway Route  (2) Site Stitch  (3) Program  (4) Frame

FIG. ## | PROGRAMMING CLOUD  The design of the sites combines four areas of program. (1) Environmental  (2) Educational  (3) Economic  (4) Cultural
constructed wetland
biosquare
site lighting
site office
concrete pad
benches
signage
fencing
saplings stakes
tree farm
architectural elements
Gabion wall
architectural elements
environmental systems
Due to the Consent Decree imposed by the Federal Courts the Metropolitan Sewer District is in the process of updating its aging storm and sanitary sewer system. One of the main contributors to the poor water quality along the Mill Creek are the overflows of the system during peak loading. To increase the systems capacity facilities like this one pictured to the left have been constructed to handle large quantities of untreated flow prior to reintroducing it into the system.
SITE PHOTOGRAPHY
WASTE LANDSCAPES
SITE PHOTOGRAPHY
SITE PHOTOGRAPHY
SITE PHOTOGRAPHY
WASTE LANDSCAPES
CONCRETE GAIN SILOS | FIG #1: Formerly a major grain depository, this complex is being demolished. The first 30 silos have been leveled, crushed and shipped to a concrete recycling plant. The remaining grain elevator and silos silently await the return of the contracted demolition company and their final destiny in the rubble crusher. No date has been set.


FIGURE CREDITS

1. Author
2. Author
3. Author
19. <http://maps.google.com/maps?hl=en&ie=UTF8&hq=&hnear=6164+Benneville+St,+Cincinnati,+Ohio+45230&ll=36.847895,-121.794262&spn=0.053299,0.118103&t=h&z=14>.
20. Read, Thomas B. Mill Creek Valley.
29. Author