The Life and Death of an American Block: A Dialogue with Entropy

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Katherine Ambroziak, Major Professor

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(Original signatures are on file with official student records.)
The Life and Death of an American Block:
A Dialogue with Entropy

A Thesis Presented for the
Master of Architecture Degree
The University of Tennessee, Knoxville

Micah Daniel Antanaitis
August 2011
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Abstract

My goal in this thesis is to frame, through design, an existing environment in a manner that fosters the witness and embrace of the reality and beauty of decay—which acts as a marker of the passage of time. My intent is to engage in a careful renewal of a neglected, and largely forgotten, urban landscape, which does not ignore its temporal context. My hope is to explore the full potential of the life cycle of buildings and discover the lesson of mortality in modern American ruins.

Things fall apart. This is a simple truth about the physical world that humanity inhabits, which surrounds, invades and defines the human condition. Because [or in spite] of this we live in a culture that values progress, newness, and speed, that proselytizes through marketing the belief that comfort can be found in surrounding oneself with new things, pushing reminders of death away. The current world of architecture and design nurtures this mentality, selling projects through the production of sleek renderings of pristine and clean objects, a state that will only last for a short time. I argue that, in spite of this mind-set, the realization of entropic inevitability is necessary to provide a healthy temporal context through which to view daily life. Its acceptance is crucial to an appropriate perspective on life and the human condition, allowing positive forward movement in the midst of the change and deterioration that define life. I hope to show how architecture can foster this acceptance through adaptive re-use which values and interacts with the marks of time and traces of past use.

The question that I am positing ultimately is this: How can new architecture breathe life into neglected spaces while also preserving the found beauty of the state of its breakdown, what one might call its ‘character’? Can architecture take cues from and be molded and enlivened by the people, events and nature that it interacts with and is transformed by? Can architecture enact a resurrection that deftly navigates between outright neglect and sterile renovation? And what is the appropriate way to do this?
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THE LIFE AND DEATH OF AN AMERICAN BLOCK:
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“What interests me is the transformation, not the monument. I don’t construct ruins, but I feel ruins are moments when things show themselves. A ruin is not a catastrophe. It is the moment when things can start again. A treasure we all admire, a gift to the Earth.”¹

Anselm Kiefer
This thesis explores the fundamental issue of entropy—the inevitable tendency of things to move from order to disorder and to break down over time. This intrinsically temporal issue is addressed through the study of and designed response to a city block in North Knoxville that has changed and will continue to change over time. Architecture by default enters into a dialogue with time and the inevitable physical and cultural changes that mark time’s passage. My question concerns the appropriate renewal [the converse of entropy] of forgotten and under-developed urban landscape—a resurrection which deftly navigates between outright neglect and sterile renovation. My ultimate goal is to discover a way that architectural intervention can foster a healthy interaction and acceptance of entropy, and in turn, to unearth meaning from the ruins in the modern American urban landscape.
INTRODUCTION/QUESTION

How can new architecture breathe life into neglected spaces while also preserving the found beauty of the state of breakdown? Previously used sites and buildings possess a certain character that only exists because of the passage of time, because of the natural processes that make their mark. I think that entropy, while at the core a sad thing, can be a powerful reminder, especially when manifested in a city block, of the simple fact that life is not perfect, that things fade, wither away and die. It is this realization that forces me to slow down and consider my state. This manifestation begs me to stop and consider the story of a place, to ponder the truth of entropy in life and the limited time that I have. It allows me to gain perspective on the daily grind, the measuring of life “with coffee spoons” that T. S. Eliot so eloquently and sadly expresses. How can the magic of that found beauty be appreciated and grasped in the midst of renovation and reuse, through resurrection and rebirth? How can architecture grow and change with the passage of time to recognize this breakdown, to appreciate it, to be molded and livened by the people, events and nature that it interacts with. How can building and landscape foster an appreciation of not just the original monument but also the subsequent transformation into ruins, often of revelatory nature?

Yet the current world of architecture and design nurtures this mentality, selling projects through the production of sleek renderings of pristine and clean objects, a state that will only last for a short time. What happens after the building changes use? After additions are made and paint weathers? After it is abandoned and used? What happens next? Do we simply tear it


down? Do we clean it up, wipe away traces a past use and a past history? Do we break it up into small modules, neglecting existing formal arrangements? Or can the marks of time be valued, interacted with and given a new frame? Can the mundane industrial forms and structures of our urban past be celebrated for what they are and reused for a new potential that incorporates layers of its past, whether special or ordinary?

My question ultimately is about the potential of architecture to enact a resurrection which deftly navigates between outright neglect and sterile renovation.
Things fall apart. This is a simple truth about the physical world that humanity inhabits. It is a truth that surrounds, invade and defines the human condition. In the middle of the nineteenth century, the second law of thermodynamics revealed that energy tends to move from order to disorder, from heterogeneity to homogeneity. The measurement of this microscopic disorder is called entropy, which only increases over time. It’s very existence hints at a temporal directionality or “arrow of time.” Entropic processes become a clock, measuring the passage of time.

This concept has since crept into a wider philosophical realm to describe the breakdown of life, the tendency of things to break, wither, dishevel, and become soiled as time passes. Entropy is, in fact, something that we encounter every day, whether we openly realize and accept it or not. A carefully tended garden will eventually grow weeds and be overrun with wild grasses when left to its own devices. A barn painted a beautiful bright red will fade to pink and then gray. It will chip away because of the natural elements of sun, rain, and wind. Beautiful hardwood floors will begin to creak and sag from constant wear. The human frame of bones will weaken and bend over the course of a long life. And human flesh will eventually return to the dust from which it came.

In many ways this is a crushing truth. The realization that death is a reality of life is of no small significance. Humans naturally fear death, which leads to a tendency to ignore our own fragility and inevitable physical breakdown. Because of this, a natural response is to push reminders of entropy to the edge, outside of our periphery, while we barrel forward with purposefully narrow vision. The current American trends constantly push the latest gad-

gets, the newest and sleekest editions. We are continually bombarded with a value system that devalues things that have aged and become outdated. Comfort can be found in surrounding oneself with new things, which blind us to the truth of our mortality.

Yet conversely, the realization of entropic inevitability is necessary to provide a healthy temporal context through which to view the work, play, interactions, relationships, and movements that define daily life. The breakdown of entropy, seen in this perspective-defining role, is intrinsic to an understanding of the reality of the passage of time. Thus, entropy is a truth that does not need to be seen as a negative reality. Its acceptance is crucial to an appropriate perspective on life and the human condition, allowing positive forward movement in the midst of the change and deterioration that define life.
URBAN EVOLUTION

Beyond the initial planning and development of urban space, much unplanned growth and change occurs in our cities. This is the result of the natural social processes of land acquisition, the rise and fall of businesses, the movement of people, the evolution of technology, trade and industry as well as government infrastructure projects. As cities undergo these changes, there are inevitably spaces that get left behind, that become vacant, undesirable, and wasted. Alan Berger has coined a term to describe this urban phenomenon: “Drosscape.” He describes this as the “inescapable entropic counterpart to evolution and urbanization” and sees these sites as the opportunity and challenge of twenty-first century designers and planners.3

This is the physical reality of the city that designers, architects and landscape architects inherit today. These sites are a microcosm of the rise and fall of civilizations.

In the middle of the last century, the American landscape underwent a massive makeover when the federal government sponsored a comprehensive highway system for vehicular transportation. This massive public works project allowed for quick and easy passage between cities. The American public could now independently transport themselves across the country with unprecedented speed and ease, without having to stop in urban centers. The bypass highway allowed for commuters to circumnavigate metropolises. While this system did wonders for inter-urban transportation, its affects on intra-urban travel and culture were far-reaching and often negative in unforeseen ways. These superhighways were often designed [or not designed] in ways that carved up urban fabric, disrupting both normal routes...
of urban movement and the continuity of existing neighborhoods.

The highway system, in conjunction with changing industrial technologies, led to a decrease of small local industry. More and more shopping centers and commercial districts began to cater to the interstate traffic along highways and in new suburban communities. Previous central commercial nodes within cities were drastically affected, often in detrimental ways. The bolstered dominance of vehicular transportation within cities further affected urban fabric, stretching it out and breaking it apart with surface parking lots and expansive multi-lane streets. People began to migrate away from urban centers towards the suburban periphery at an unprecedented rate.

These factors combined to exacerbated the normal evolution of urban blocks, leading to a quicker and broader development of “Drosscape” in most American cities, also known as urban decay. The overall character of cities, especially in downtown and edge-of-downtown areas began to change rapidly. While Berger sees this kind of change as an inevitable and natural by-product of a healthy growing city, it does not always benefit the city overall. The truth is that areas of the urban fabric are, in many respects, left behind to wither away, to thin out, disperse, and rust. Holes in the city are stuck in time and become permanent reminders of the day the business closed, or of the month a tenant moved out. These small moments in the city are forgotten and begin to undergo a second level of change due to weather, neglect and the natural process of aging.

Yet these spaces cannot be ignored forever. The current trend in urban areas today is to renovate and adaptively re-use blighted and abandoned properties in the city. Thus arises the question of renovation. What is the nature of the renewal? How does it serve or support the surrounding

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community? Furthermore, what is the purpose of the renewal? What are the economic, social, cultural, and historical factors that should be considered?
RENOVATION

Anselm Kiefer points to the honesty that is revealed by the nature of a ruin. Age is certainly something that begins to unveil a certain measure of truth, just as a material reveals its true properties as it is tested over time and interacts with the wear and tear of use and pressure. In his book *Ghostly Ruins: America’s Forgotten Architecture*, photographer Harry Skrdla captures the mystery and beauty of many abandoned structures in the American landscape. He expounds on this concept of honesty through age:

Part of the charm of abandoned structures is that they are honest. They have reached the end of their lives, no matter what the cause, in their own way, and we respect them for it. They are the revered elders of their race, wearing their wrinkles without regrets. There are no facelifts here. No fountains of youth. We witness their decline...

Abandoned buildings tell stories of the past that has formed their present state. And in this story lies a certain amount of beauty that arises from, as Jun’ichirō Tanizaki puts it, “the glow of grime.” In *In Praise of Shadows*, Tanizaki elucidates eloquently a beauty that is born of filth and the distinct touch of time:

In both Chinese and Japanese the words denoting this glow describe a polish that comes of being touched over and over again, a sheen produced by the oils that naturally permeate an object over long years of handling—which is to say grime. If indeed “elegance is frigid,” it can as well be described as filthy.

6. Ibid. p. 11
This by-product of time is a characteristic of the revelatory nature of entropy that I want to address when attempting a renovation. To ignore this complex beauty when renewing a site is, in a way, to further distance ourselves from our human condition and the lessons that entropy has for our daily lives. It is common to refer to the wisdom of age and the beauty in our elders whose wrinkles and gray hair are a manifestation of experience and a patient and persevering weathering. Can we do the same thing with these architectural ruins? Can we incorporate lessons from them into a renewed state?

Another revealing aspect of Skrdla’s analysis concerns the previous use of forgotten spaces. He notes that “the most important thing about an abandoned structure is that at one time it was not abandoned”7 He is saddened by the sterilization of a space that renovation often creates, by correcting the imperfections that “are part of a building’s personality. The imprint of humanity. A permanent record of the people who came and the events that occurred there. Restoration projects, striving for a ‘perfect’ version of a building, often remove these imperfections, and in so doing sterilize it; negating the part of humans in the building’s life.”8 While Skrdla is more specifically referring to restoration here, the same thing can be said of many renovation projects that seem to sterilize the character that had previously existed. This begs the question about the appropriate method of renovation.

New construction should consider the future passage of time and the way that materials and structure will weather and change with wear and tear. What is so remarkable about the buildings that most likely inhabit the “Drosscape” that I am describing were built in the late nineteenth and ear-

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7. Skrdla, p. 17.
8. Ibid. p. 19
lier twentieth centuries with traditional construction methods. Natural ways of conditioning and lighting spaces were fully exploited before the advent of modern air conditioning. These structures are sturdy and massive. They were built to last and their existence today is certainly a testament to this. Now the life expectancy of buildings is much shorter, anticipating the quick changes that mark the transitory nature of life today. Ironically, new construction fails to consider the flexibility and future use of buildings. That is another reason that preserving and renewing these spaces is so crucial to this dialogue and thus worthy of a certain amount of effort and care. They mark the end of an era of construction that has many lessons to teach us today.

Figure 11. Industrial construction

SITE

Just a mile north of downtown Knoxville, an oddly shaped city block lies between the Old Gray and Knoxville National Cemeteries and the intersection of N. Central and Broadway. This intersection is historically significant, as these two roads were main routes from downtown to areas north of the city. The intersection is still heavily trafficked, yet the pedestrian experience is not pleasant, lacking the interaction with active businesses. The other primary edge condition of the site is drastically different. The 13-acre Old Gray Cemetery is Knoxville’s oldest planned cemetery, designed in 1850. It lies on the natural rolling terrain and has grown from its original pasture-like state to a gnarly wooded garden over the years.

Hidden between these edges, behind the façade along these main arterial streets exists a series of alleys and abandoned buildings. This is a surprisingly quiet site [considering the proximity to these main avenues], which acts as a buffer to the cemetery. The interior of the block is a story below the street, adding to its isolation. I am intimately familiar with the site, as I pass by it to and from the university on my bike. It has become a significant part of my daily path. I have often visited this area as a destination as well to simply enjoy its quietness and age. Here time seems to slow for me, creating a therapeutic moment in my otherwise hectic day. In some ways I feel as though the site has chosen me.

Together, the city block and the cemetery share a certain slow and forgotten quality. When I am there, I feel as though I am completely isolated. This isolation inspires a certain curiosity and exploration. It is incredible to feel as though one is discovering something, especially when it is hardly hidden from plain site in the middle of a city. There is a certain wildness to
everything, to the rusty doors, the overgrown weeds, the broken glass and abandoned trucks. The site is marked by a measure of richness not afforded to clean and new spaces or objects. The artifacts of countless stories of past events and lives further mark it with their distinct touch. They each in their unique ways tell the entropic story of time.

**HISTORY**

This block is a shell of what it once was—a dense residential block flanked on two sides by a commercial hub of retail and service oriented business. Over the past century, this block has seen restaurants, barbershops, groceries, cobblers, furniture stores, laundry services, auto mechanics, blacksmiths and welders. This is a rich representation of the various industries and businesses that allow a city like Knoxville to flourish and sustain a growing population.

And all the while Old Gray Cemetery lies quietly beside. Having been designed and implemented in 1850 on the far edge of the outskirts of Knoxville, it has stood as a constant bystander to the growth and revolving development of the surrounding blocks. What was once the only development in sight has become a breath of fresh air among the dense and busy life of the city that has formed around it. Much like other cemeteries of the era, Old Gray traditionally functioned as a neighborhood public park—informally hosting picnics, lover’s dates, sledding, games, and church events. Some people still use the park in this fashion, lounging or walking dogs.

Nathaniel Dearborn is the founder of Mount Auburn Cemetery in Cambridge, Massachusetts. When describing its character, he could easily be describing Old Gray, which was designed in the same era—

The grounds are mostly overshadowed by foliage of large forest
trees, the whole combining to affiliate the spot, as a suitable place for the living to visit and there ponder on the ever changing state of man’s mortality.9

This cemetery is a beautiful hidden park in North Knoxville that deserves appreciation for its historical significance, its character that fosters a meditative retreat and its reminder of our fragile nature. The cemetery, by definition, is a grave reminder of our mortality and the constancy of the cycle of life and death. This truth stands in stark contrast to the fickle and transitory nature of humankind’s endeavors.

Over the past century and a half, the activity of the block would be revealed in an arc, slowly growing over a century and more quickly dropping after that. Slow growth on the edge of the city led to a small commercial district at the corner of Broadway and Central in the 1880s. This was accompanied by a residential district in the interior of the block toward Gray cemetery. From the 1880s till the 1930s, solid growth and development led to a dense residential neighborhood next to a consistent, yet ever-changing, commercial hub of retail goods and services. Groceries, druggists, and furniture stores stood next to auto mechanics, welders and laundry services. There was always an obvious distinction between commercial and residential areas.

From the 1930s till the 1960s a constant density existed, while the distinction between residential and commercial properties became blurred. In general, there was a continuous turnover in most of the block, yet three businesses in particular were constant tenants: Sanitary Laundry and Dry Cleaning, Edelen’s Furniture and Storage, and North Knox Barber Shop.

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Lusk Body Shop and a Greyhound bus storage just west of the block were also consistent businesses in the midst of much surrounding changes.

After 1970, there was a noticeable reduction in density as more and more vacancies arise in the block. The residential areas in particular were waning. These changes directly coincide with the completion of the interstate system in the Knoxville area, which effectively severed connections between downtown Knoxville and the areas north of the site.

After 2000, more and more parking lots were formed and vacancies double. Today, most of the block is vacant, with literally 0 remaining residences. In a block that in 1930 had 19 businesses, 28 residences and only 2 vacancies, there now exist only 6 businesses, 0 residences and 9 vacancies, including multiple surface parking lots. One new building has been built and three [at the corner of Jennings and Tyson] are currently being renovated. Many properties are owned by absent and irresponsible owners, several of which are going to be bought by the city because of the neglect of property taxes. Their fate, therefore, remains in the balance.
PROPOSAL

My assumption is that this pattern of urban decay represents a version of multiple histories of urban decay that exist in urban areas throughout America. While I am clearly stating the limits of my design investigation, I hope that this mode of thinking may be translated in various ways to comparable urban conditions. My intentions are to respond to the condition of this one city block. While I am interested in what a re-densification of edge of downtown conditions with mixed-use development would do for the vibrancy, character and walkability of urban space, my concern is primarily about the conversation with the current state, highlighting the entropic characteristics that can be preserved and interacted with. I want to deal with the particularities and idiosyncrasies that arise from one specific site.

I am not proposing a response that is necessarily appropriate in all cases of forgotten urban space, but rather investigating principles that explore this dialogue. Furthermore, I am not suggesting a complete renovation of all under-used spaces in the block, but rather a strategic renovation of a sequence of spaces, both architectural and landscape, that more fully interacts with both the current condition [and the past imbedded therein] and the future intervention and renewal.

The block as it exists today provides a remarkable opportunity to re-evaluate the relationship it has to its unique and distinctive edges, both the intersection and the historic cemetery. Here also lies the opportunity for a designer to discover the appropriate regeneration of a city block full of gaps, vacancies, dirt, grime, and broken glass, and a way to learn from what the nature of what is existing. How can this neglected site be engaged and energized in a fruitful way that respects and is sensitive to the quiet and entropic
character that exists there? How can the adjacency to Old Gray Cemetery be allowed to remind people of the corollary entropic nature of the human condition?

My goal is to design an architectural sequence that meanders through the forgotten and quiet nature of the block, of both renovated and non-renovated spaces, responding both to the busy street and the quiet cemetery. Some of the existing buildings have potential for renovation and new programmatic insertion. The rest of the architectural intervention will be formed in the interstitial landscape spaces between existing buildings. The intended by-product of the experience is to spark contemplation about the nature of beauty, the human condition, the passage of time, and the relationship to the physical objects around us.

I see the potential of this project to serve as an architectural "memento mori," joining a long artistic tradition of integrating reminders of human mortality into art. My hope is to explore how an architectural solution can harness the incredible awakening power of nostalgia—the power that objects have, when they are forgotten and re-discovered, to resurrect emotions, thoughts and memories.
Important to any design endeavor are precedents. A careful study of previous design projects that have explored architectural interventions as solutions to the issues of forgotten urban space, renovation, and the conversation with time will hopefully inform my response and will surely aid in its success.

S(ch)austall

A 2005 project by FNP Arkitechter entitled S(ch)austall, provides a clear visual example of the kind of re-inhabitation of an entropic condition that I am interested in, though on a much smaller scale. Based in Stuttgart, the firm designed a pre-fabricated inner shell to be placed inside an 18th century stone pigsty in Ramsen, Germany. In doing so, they converted what could easily be judged as a useless stone shed into a small studio space, finding the inherent beauty and intrigue in this monument of entropy. The result is a remarkable enlivening of a crumbling structure that had been partly destroyed in WWII. This once lifeless shell now glows from the inside with warmth and life. There is an intense dialogue sparked between old and new elements that seems to have an appropriate respect for both. The found beauty of the entropic state and the beauty of a new architectural intervention are placed in close juxtaposition, forcing a fresh relationship of seemingly disparate elements. Even the name for the project illustrates this—an insertion of schaustall, the word for “showroom,” into saustall, translated “pigshed.” This project is a perfect conceptual example of the dialogue that I want to foster.

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24. Ibid.
The High Line

This project was a recent renovation of an abandoned raised rail line in New York City. What is so remarkable about this urban renewal project is the lessons that the designers learned from the existing derelict conditions. When it was abandoned as an active rail line in 1980, it began to collect a layer of soil and grow wild grasses, becoming an unlikely place for a raised linear ecosystem set apart from the bustling city 30 feet below it. Photographer Joel Sternfeld took it upon himself to photograph this disheveled state of the rail line over the course of a year. In Walking the High Line, he captures this surreal hidden landscape and its unique found quality that is soaked with the entropic process of disorder. And the result is something quite beautiful. He describes it as a “true time landscape…what Spring in New York actually looks like when it’s left up to Spring”11

This photographic exposé was just a small piece of an extensive campaign made by many individuals to save the High Line from plans to destroy it. The efforts of this non-profit group, Friends of the High Line, paid off and a design competition was held in 2003 to renovate the elevated railway as a park. Landscape designers James Corner Field Operations and Architects Diller Scofidio + Renfro worked together on the final design, which used Sternfeld’s photographs of the current state as inspiration for their renovation. Much of the original rail line was reinstalled and new plant life was included to recall the wild nature that had grown up on its own. The final result is a beautiful and viable park space that maintains much of the character of the High Line that was abandoned for 20 years.


American Tobacco Campus

Durham, North Carolina is known for its historic tobacco industry, upon which the city was built. When operations ceased at the two-block American Tobacco Company factory in 1987, the buildings sat idle for almost 15 years. Fortunately a renovation that had been in development for 10 years finally came to fruition, headed by the Durham firm, Belk Architecture. This large complex includes many different styles of buildings built from 1874 up to the 1950s. Their heterogeneous nature is unified through a large courtyard space in the center of the factory buildings. A water feature that winds its way all the way along the complex connects the various areas and further articulates this park element. A huge water tower in the center was integrated into a small outdoor performance venue by the insertion of a pavilion into its structure, serving as the focal point of the courtyard and the signpost to the city.

This renovation capitalizes on this iconic landmark and its historical significance to the city to create a dynamic district that has revitalized the area just south of downtown Durham. The complex now houses offices, restaurants, park space, and some residential development. The beautiful thing about the renovation is that when I visited it, I was continually aware that I was in a distinctly industrial area. The markers of its historical character and use were not lost in the renewal. It is appropriate that a site that sparked the development of the city is now re-activating its urban core through a careful and intentional resurrection. Because of its scale and connection of various elements, this project serves as a perfect example of a realistic approach to a sensitive urban redevelopment.

The program is intended to further facilitate a dialogue about the passage of time and its affect on the physical world around us. Primarily, this will be achieved through the relocation of Knox Heritage, the local non-profit historic preservation society. Knox Heritage is an organization that espouses principles concerning the sustainability of historical character that are crucial to the dialogue I intend to foster. They understand the care and effort needed to appropriately restore spaces that many others will overlook and neglect. This street presence along Broadway would serve them well. Additional space and a closer integration into the urban fabric closer to downtown would be greatly beneficial to their admirable efforts.

The other portion of the program will be a large warehouse facility for their existing architectural salvage center. This collection of fragments from destroyed architecture represents a world of found stories and the opportunity for many people to both breathe new life into forgotten objects as well as re-integrate aged and weathered material into new useful things—a conversion that goes directly against the tendency to devalue old things. The facility would have a storage function as well as retail space.

A further component of this salvage facility will be a workshop cooperative that serves a specific need in the community. It would allow individuals in the community the unique opportunity to come together and invest in a local workshop to house the tools and machines needed to fashion new objects from old materials. This process of making creates a lasting bond between people and physical objects, which can have the power of resurrection. A found object in our childhood home has the unique and intense power to harvest a wave of emotion, memory and thoughts. This tangible

Figure 30. Salvaged hardware

Figure 31. Salvage sale


physical object is imbued with a magical power. Part of its power lies in its very physicality, and part of its power relies on the fact that it was hidden for a time, and then rediscovered. This rediscovery has the powerful element of nostalgia. While nostalgia has the potential to lead to an unhealthy yearning for an idealized past that does not, nor may have ever existed, it also has the power to awaken us from our busy lives that tend to numb our emotions. Nostalgia creates a living, dynamic moment, which layers the past with the present. The relationship that such a facility will engender will help to foster a healthy acceptance of entropy in daily life as well as a value system that encourages the worth of forgotten and weathered objects.

This industrial, hands on activity would also be a response to the present state of the block as well as its history of use. It will feed off of the neighboring Ironwood Studios, a neighboring workshop that houses both a metalworker and woodworker. All of this will highlight the passage of time and the relationship to material and objects over their life cycle. It will act as a re-activation of the urban condition that does not rely on cursory consumption.
DESIGN EXECUTION

Through a more careful study of the site and its urban, spatial and temporal contexts, I developed a clear plan for the development of a design that was an appropriate manifestation of my intentions to respond to this current entropic condition, and to inject new life into this withered skeleton, while respecting the age and unassuming honesty of what is there. Because of the location of the site's areas of disuse, it became clear that the centers of each of its street edges are in the greatest need of new life. The corners have either continued to be use or have been renovated recently. I am therefore re-inhabiting the six buildings that are currently in most disuse along these edges as well as the interstitial spaces that they form. Each of the three edges—North Broadway, Jennings Avenue, and Tyson Street—provides a uniquely different character and set of needs and are being programmed accordingly.

These three active arms—Knox Heritage, community workshop co-operative and greenhouse nursery—each in their own way address the passage of time and cycles of birth, decay, and new life. They reach out to the street edges and surround the internal spaces of the block, which become a unique post-industrial park landscape that is at the heart of the dialogue with entropy that I am engaging. This whole hidden landscape greets the city in a public park and bus shelter serve as the sign and entry point for the entire block, beginning a sequence of park spaces that follow the topography of the site, re-introducing permeable surfaces and nature to a scarred and smothered site at the same time that it reintroduces visitors to the history and character of the site.
DESIGN METHODOLOGY

A variety of responses is needed to express the layering of old and new that is sought. I needed to design on a spectrum. These icons represent the degrees of renovation I am employing. The first is an acceleration of the entropic process of ruination. This intervention is an act of subtraction that returns a structure to nature more quickly. Next is a selective removal of existing elements in order to highlight certain structural components or to salvage existing derelict conditions. Thirdly is an insertion of new architectural elements in a way that layers old and new, highlighting the characteristics of each through juxtaposition. Finally is a complete full renovation of an existing structure to fully secure and condition a space to facilitate new use.

The discovery of historical footprints on site, as revealed in Sanborn maps from various years, proved a fruitful mechanism to begin to intervene at the site scale as well as the scale of the buildings. These footprints are most commonly revealed through subtle changes in material and in some cases, informing openings and areas of transparency in buildings.
LANDSCAPE

The interstitial landscape sequence is imagined as a post-industrial park. The vacant lots become both public park space as well as flexible auxiliary support spaces for the newly developed programs. A primary public square for large or more formal events is anchored by a ramp promenade, which moves around a grass-filled historical footprint and an amphitheater on the northeast corner at the intersection of Broadway and Central. The difference in street and block levels are merged and mediated, engaging the corner, while also being set apart through topographical differentiation. A bus shelter near the corner of Central and North Broadway that acts as public sign to park and bridges the street and the sunken courtyard.

A greenwall is constructed along the Broadway edge creating a lush edge to buffer the noise of the street. Overall ground permeability increased. The ground cover is mostly a patchwork of semi-permeable gravels as well as reclaimed cobbled material from the site and elsewhere. Historical footprints inform areas of material change. Little Bluestem [a native grass] is planted in select areas to highlight the site’s current wild nature and reflect a return to the natural processes of growth.

This multi-purpose space serves Knox Heritage while also providing a public function, the courtyard has great potential for staging market days, concerts, and other various events, as well as informal daily retreats from the street. The primary site path beyond this courtyard is articulated by rubble used from salvaged materials gathered on site.
The main portion of block’s program, Knox Heritage, will front the Broadway edge of the site in what was once the long-running Sanitary Laundry Facility. This industrial shell will become a new facility, which will include a large event space, an archive, a gallery, market stalls and an expanded architectural salvage program.

The methodology employed here is a full renovation with insertions. Its interior is gutted to its structural components, its exterior is cleaned and it is secured and conditioned to facilitate new use. The two primary areas of intervention here are along the street as well as the north-facing facade, now hidden by a parking lot and a later building addition. I am proposing a removal of this lot and building, as well as opening up the first bay as a sidewalk arcade. My proposal is to fully remove the infill in the first bay, which is now mostly boarded up, leaving just the beautiful limestone and brick work of the structure and creating a street arcade to continue the wide pedestrian way started by the new bus shelter. This new inset facade is fully glazed to create storefronts for Knox Heritage’s gallery spaces and the neighboring cafe, accommodating sign and entry while also providing a public service.

The structural frame is also celebrated in the newly opened up north façade, which are filled with new frames that extend the archive and salvage functions of Knox Heritage into the public zone. This frame language is mirrored in the simple bus shelter, which cantilevers out over the courtyard, symbolically extending the life of the street into the interior of the block and framing a view of the new landscape spaces. Here the private functions of Knox Heritage merge with its public functions and begin to engage with the new public exterior spaces. The materiality of these boxes [corten steel and

Figure 38. Sequence of renewal

38. Diagrams by author
cedar wood planks] is important as they relate to time and the entropic process of weathering. These two zones open up the building to the street and the new park and bus shelter, engaging the public and fostering a healthy street presence.

The interiors are re-done to include an entry desk, office mezzanine, archive, salvage, event and support spaces. The office mezzanine inhabits the clerestory zone, which overlooks the large multi-purpose event space, taking full advantage of the industrial formal arrangement. Service elements are pushed to the south party wall, including bathrooms, kitchen, and mechanical spaces. The central event space for the hosting of events is flanked by new interior partitions with salvaged windows. The original steel structure is painted white to set it apart from new additions and partitions and the original concrete floors and brick walls cleaned and polished. The glazing is replaced [in original industrial frames]. A selective removal of the floor slab connects levels, bringing all functions of Knox Heritage together and allow light to pass deeper into the buried portions of the building.

Additional salvage storage and market venues are included at the basement level. The existing loading ramp is kept and a freight elevator is added to facilitate the moving of large salvage items. A second stairway and floor cutaway further mediates the levels and various programs and encourages movement into the interior of the site, further aided by a platform which extend into the alley behind. A café and bar neighbor Knox Heritage, enlivening the block both day and night, street and alley. The café extends into alley space with outdoor decks, which terrace down toward the interior of the block.
SHOWCASE

Closely tied programmatically with Knox Heritage, this auxiliary salvage storage space used to be the boiler room for the former Sanitary Laundry facility. This intervention is categorized as a controlled ruin with insertions, which is secured but unconditioned. The exterior, with its beautiful rusty bi-fold doors, is left untouched, but the glazing is replaced [in the original industrial frames]. A new glazed entry is inserted behind the doors to secure the space.

Here, a historical footprint that bisects the northeast wall informs a new store-front glazing insertion and change in floor material. The footprint is responded to both in section, with a new corten frame for a glazed opening which allows visual communication into the auxiliary salvage showcase storage space, and in plan with a water feature. The pool of water reflects the new insertion and fills exactly the old footprint, harboring new life of fish and plants. A material change [concrete to wood] marks where the footprint exists on the interior. An existing retaining wall beyond this opening creates a small sunken space just beyond the more public courtyard. New stepped seating is installed along the retaining wall and the concrete pad is broken up and replaced with permeable gravel. Little Bluestem further frames this garden space.

An existing connection the Sanitary Laundry building, which now sits awkwardly [and uselessly] on the facade is re-imagined as a balcony boardwalk, which enables circulation between this storage space and Knox Heritage, and reveals traces of existing idiosyncrasies. It also acts as a unique aerial view of the site and a gateway through the interior of the block.
WORKSHOP

A community cooperative workshop will address Jennings Ave. and the various small industrial activities that are still active in the neighborhood, including an auto body shop and a Ironwood Studios, a joint venture of an ironworker and woodworker. Tying in with the salvage program at Knox Heritage, the shop will promote the act of re-using and re-framing material with a history, a microcosm of what I am intending to accomplish with the entire site. Here a community can come together and invest in the resources to build things. The facility will also host classes and various workshops and events such as iron pours.

This intervention, like Knox Heritage, is a full renovation with insertions. The exterior is re-painted and additions, which hide the pure geometry of this barrel vaulted storage building, are removed to reveal its pure structural form. The location of one addition, which frames a line of existing doors, is a prime location for an updated entry element. This northwest corner is removed and replaced with a wrapping awning that frames a new glazed entry and acts as a sign for the new activity. The new insertion shades the openings and frames the extension of the workshop functions into an outdoor workspace for larger scale projects and events. The double doors are renovated to increase visual connection and can fully open up to create one space. The language of the insertion borrows from the frames in the other buildings but acts here in a different way.

The interior is gutted to its structural components and the interiors are re-done to include an entry desk, office, rest room, storage and open work areas. The service spaces are pushed to the northeast wall, allowing the southwest opens up to the new corner entry and outdoor work space.
GREENHOUSE

Once a machine shop and later an auto equipment business, this beautiful little building, with a fully industrial glazed space sandwiched between brick ends, has changed ownership and uses many times. Its potential to relate to Old Gray Cemetery, which sits across Tyson St. is aided by its open lot to the south. This lot side lot and the corner facing the cemetery are the areas focused on for direct intervention, linking the landscape interventions on site with the beautiful cemetery grounds. Here the site renovation starts to actually produce marketable goods.

Much like the workshop, the greenhouse is a full renovation with insertions, as well as a selective removal of the rear roof, which is replaced with a greenhouse roof. The interior is gutted to the minimal structural components and the exterior is cleaned. It is secured and conditioned to facilitate new use and the glazing is replaced [in original frames]. The south corner is removed and replaced with a wrapping corten frame, like in the workshop, to indicate entry, transparency and public engagement. The interiors are re-done to include display and commercial space, office, rest room, storage and greenhouse.

The greenhouse program extends to meet the now terraced lot for raised growing beds. This terrace completes the landscape sequence and leads to Old Gray. The flower shop accompanies the greenhouse, opening up to a view of the cemetery.
RUIN PARK

Here, the extreme end of the renovation spectrum is employed to create an accelerated ruin and highlight a return to nature. In essence this space is highlighting and exploring the potential of a ruin to be celebrated and used and interacted with. The embrace of the entropic conditions through an architecture of subtraction rests in the heart of the block.

It is entirely gutted to its structural shell and the roof is removed, revealing the original steel truss. The exterior is left untouched and the space remains both unsecured and unconditioned. The glazing and frames are removed, leaving bare openings. The foundation floor is also removed, informed by historical footprints, and replaced with permeable gravel, grassy plain, wild grasses, and a koi pond.

The result is a post-industrial outdoor room that fosters a unique atmosphere for both formal and informal events. New use is inspired by the flexibility of space. It acts as equal parts sculpture park, secret picnic location, and alternative event venue, depending on the time of day and year. This space will continue to change over time as people and time and weather are allowed to freely interact with it. The life breathed into this architecture is completely dependent on the people within it and the elements they bring to the space.
CONCLUSION

My hope is that this investigation into a method of urban renewal will aid the discourse concerning the engagement of the inherited urban landscape. I intend these various approaches to the unique character of a site to be a model for engaging and re-purposing a site in a holistic way, with all of its idiosyncrasies and found conditions of decay. Maybe this mind-set can create a fruitful dialogue about the life of buildings over time and the natural processes of decay that define this life. Is it possible that these characteristics can be thought of differently, can be framed as to be accepted and celebrated in the process of renewal, rather than being forsaken?

I believe that these two seemingly dichotomous things, decay and renewal, should, and will inevitably, exist simultaneously in all aspects of this life, bestowing on it a certain measure richness and mystery. It is this mystery that gives the city the layers that make it unique and vibrant. I also believe that it is somewhere in this overlap of death and life that we live, walk and create everyday. My hope is that architecture and the built environment can reflect this overlap and foster an appreciation of these layers and the complex nature of time.
“What is really new is what was there all the time. I say not what has repeated itself all the time; the really ‘new’ is that which, at every moment, springs freshly into new existence. This newness never repeats itself, yet is so old it goes back to the earliest beginning. It is the very beginning itself, which speaks to us.”

Thomas Merton, *New Seeds of Contemplation*
List of References


The University of Tennessee. Tennessee Online Historic Topographic Maps http://www.lib.utk.edu/cic/tnmap/browse.html
Appendix
VIEWS OF EXISTING CONDITIONS
SITE METHOD DIAGRAM

[WORKSHOP]
Full Renovation with Insertions
- Interior gutted to structural components
- Exterior cleaned
- Secured and conditioned to facilitate new use
- First bay along Broadway removed to accommodate sign, entry, transparency and wider pedestrian path
- New storefront glazing installed at second bay
- Interiors re-done to include entry desk, archive, event and support spaces
- Steel structure painted white to set apart from new additions/partitions
- Glazing replaced [in original frames]
- Salvaged windows incorporated into new partitions
- Boxes inserted within structural frame-work to extend programs into exterior zones
- Corten steel and cedar wood used in new insertions to show weathering over time

[KNOX HERITAGE/CAFE]
Full Renovation with Insertions
- Rear roof is removed and replaced with glazed greenhouse roof
- Interior gutted to structural components
- Exterior cleaned
- Secured and conditioned to facilitate new use
- Glazing replaced [in original frames]
- South corner removed and replaced with glazing/awning to accommodate sign, entry and transparency
- Interiors re-done to include display and greenhouse
- Historical footprint informs new store-front material
- Balcony bridge connection inspired by existing condition

[GREENHOUSE]
Accelerated Ruin / Return to Nature
- Entirely gutted to structural shell
- Roof is removed, revealing steel truss
- Exterior left untouched
- Unsecured and unconditioned
- Glazing and frames removed, leaving bare openings
- Historical footprints, and replaced with permeable gravel, grassy plain, wild grasses, and a koi pond

[RUIN PARK]
Controlled Ruin with Insertion
- Secured but unconditioned
- Additions removed to reveal pure form
- Exterior left untouched
- Glazing replaced [in original frames]
- Historical footprint informs new store-front material
- balcony bridge connection inspired by existing condition

[SHOWCASE STORAGE]
- Full Renovation with Insertions
- Interior gutted to structural components
- Exterior cleaned
- Secured and conditioned to facilitate new use
- Historical footprint informs new store-front material
- Little Bluestem [native grass] planted in select areas to maintain wildness of site in select places

[GROUND/LANDSCAPE]
- Post-industrial park
- Grade changes mediated by terracing
- Bus shelter acts as public sign to park and bridges street and sunken courtyard
- Ground permeability increased
- Primary site path articulated by rubble used from salvaged materials gathered on site
- Historical footprints inform areas of material change
KNOX HERITAGE PLAN: BASEMENT LEVEL
SECTION AA AND BB DIAGRAMS

Entry desk storage

Interior partitions and shelving for materials, tools and work surfaces

Frosted wall with view of storage and service areas, including an office and backiso for the workshops

New glazing marks the historical footprint overlaps and allows new visual access to the salvage program

A new bridge [inspired by existing conditions] connects Knox Heritage buildings

A new layer of transparencies mark the entry from Broadway Street facade is peeled back one bay to create an entry arcade, which terminates at the cafe

A variety of public and private zones are created in the clerestory mezzanine

Freight elevator Corten frame insertion marks lower level salvage room

Concrete slab is removed and 3 historical footprints are exposed, which become an industrial framework for this outdoor room

Old roof removed and replaced with a greenhouse superstructure

Derelict roof is removed, exposing existing trusses, which become an industrial framework for this outdoor room

New deck platform invites movement to landscape of block interior

Removed shell installed in laser shell

New deck platform invites movement to landscape of block interior

Raised beds installed in bare shell

Old cedar roof removed and replaced with a greenhouse superstructure

Cone to recreational space exterior area (green) system which leads into the entry

Further slab removal to capitalize on southern glazing and facilitate vertical circulation

Inserted partitions incorporate salvaged windows

Secured floor void strategically removed for new vertical circulation, including a void stair to the office separated from the entry by frosted glass

Amenity of public and private zones are created in the clerestory mezzanine

New glazing marks the historical footprint overlaps and allows new visual access to the salvage program

A new bridge [inspired by existing conditions] connects Knox Heritage buildings

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Secured floor void strategically removed for new vertical circulation, including a void stair to the office separated from the entry by frosted glass

Amenity of public and private zones are created in the clerestory mezzanine
VIEW OF PUBLIC ENTRY FROM CORNER OF BROADWAY AND CENTRAL
VIEW OF PUBLIC COURTYARD: MARKET DAY
VIEW OF GREENHOUSE AND CEMETERY BEYOND
VIEW OF RUIN PARK: DAY [SCULPTURE GARDEN]
VIEW OF RUIN PARK: NIGHT [WEDDING RECEPTION]
VIEW OF KNOX HERITAGE EVENT SPACE: SALVAGE SALE
Vita

Micah Antanaitis was born and raised in Nashville, TN. Homeschooled from first grade through high school, he went on to Milligan College in Johnson City, TN where he received a Bachelor of Arts in Humanities with minors in Art and English. Upon graduating in May 2008, he moved to Knoxville, TN to begin pursuing a Master of Architecture degree at The University of Tennessee. He graduated in May 2011 and looks forward to continuing his career in the field of architecture.