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(RE)Developing Place: The Power of Narrative

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(Re)Developing Place:
The Power of Narrative

A Thesis Presented

by

KINSEY E. DIOMEDI

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

MASTERS OF ARCHITECTURE

May 2019

Architecture

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(Re)Developing Place:
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KINSEY E. DIOMEDI

Approved as to style and content by:

Erika Zekos, Chair

Stephen Schreiber, Chair
Department of Architecture

DEDICATION

To my Husband, without whom this would not have been
possible

Thus we cover the universe with drawings we have lived.

- Gaston Bachelard

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First and foremost I must thank Erika Zekos. Your unwaivering faith in me, your passion and dedication for teaching, and your continual guidance and support have made this thesis a true joy to pursue. Thank you for continuing to push me to reach further and think more critically at every step.

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Finally I want to thank my husband, Tyler, and my parents, Robin and Steve for their unwaivering support and endless encouragement throughout the duration of my graduate school education.

ABSTRACT

(RE)Developing Place: The Power of Narrative

MAY 2019

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Architectural space is a manifestation of human memory and experiences. It is a physical indicator of time and history, and it provides a canvas for us to imagine the future. Architecture anchors people in a moment in time and space, while also embodying the past and implying a future. It is not just a monument to time, but what has happened during that time; a collection of past human experiences and what will yet happen. Architecture is the manifestation of our stories, our lives. The more visually present these stories are in architecture, the richer the canvas, and the more readily it can be identified as Place. The slow and inevitable sinking of Venice, the interweaving of modern and ancient buildings of Rome, and the careful preservation of Machu Pichu. These places reach through time. We can imagine what it looked like in the past and dream of how it will change in the future. Place implies both continuity and change.

New real estate developments are often associated with drastic and sudden change that often erases the history of a place and that rich linkage of accumulated markers of experiences and time. Many developers also seek to reduce the total cost of a project to increase profit margins by using cheaper, quicker construction. Most new buildings have an average lifespan of thirty years, and so the rate of change and renewal is quite high. While change is necessary and inevitable, the economic motivations of development make it more difficult to incorporate past memories and allow for future adaptations. These quick, nullifying changes come together to erode Place and create cold, bland,

monotonous developments.

This thesis proposes looking to narrative as a vehicle for understanding how Place comes to be. Approaching architecture as a narrative allows a designer to break down the system to better understand the components, and subsequently the whole. By using narrative, and the elements of narrative: Characters, Setting and Plot to shift the understanding of architecture's role in the experience of the built world and how to develop real estate to create, or renew, the sense of Place in the modern built world.

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CHAPTER 1

INTRODUCTION

In today's world we are plagued by a pervasive sameness in built forms. Not every new building looks identical, but they all share a number of qualities that are leading to a lack of variety and distinction of form and ornamentation across the globe. This lack of differentiation between places feels hollow, inauthentic, and cold. Cities and towns have simply become structures for shelter rather than manifestations of history and individual stories that inspire daydreams. This lack of unique identity as an accumulation of stories, or Place, in our built world is due in large part to increasing numbers of building codes, mass production of goods and materials, and safety concerns. Concern for life safety and economy are not inherently bad and have led to many improvements in our built environment, however, codes and mass production primarily address large groups of people, even sometimes on a global scale such as the International Building Codes. While this approach leads to very efficient sets of rules and manufacturing processes, it tends to erase local character and identity. This process and its impact are most evident in real estate development-driven projects where the primary focus is maximizing the return on investment. These architectural projects are driven by efficiency, economics, and finances. The faster a project moves along, the time spent analyzing details is shortened, and so the details deemed non-essential, such as user experience, are short-changed. Many developers strictly follow codes without question to get through the building process as quickly as possible and they utilize almost exclusively mass-produced goods to decrease construction time and costs, at the expense of variety and the user experience. Efficiency and limiting costs are desirable characteristics, as long as they are kept in balance with the user experience and a sense of Place.

This thesis explores how to address the sameness that is seeping through the

built environment of the United States by addressing on the complexity of interactions of people, location, and time, specifically during the beginning stages of the real estate development process and key intervention points that can lead to Place. The rundown former Collins Axe Factory in Collinsville, a village of Canton, Connecticut presents an ideal site to test this approach on because it already hangs on the cusp of being redeveloped and, despite its deteriorating conditions, continues to serve as the anchor for the local community's sense of Place and identity. The 19.3-acre site is the home of the former Collins Company Axe Factory. The factory site is situated at the heart of the small community of Collinsville, which was built by and for the factory and its workers, along the Farmington River in the hills of central Connecticut. The company was established in 1826, on just five acres of land and with 8 employees, just twenty years after the formal establishment of Canton. As the business grew, the Collins Company gradually bought up the surrounding land and planned and built the town. In 1955, there was a monumental flood that wiped out a third of the buildings on site. The factory eventually closed in 1966, due in part to the flood, but also to declining business after the invention of the chainsaw. Today it is occupied by an eclectic assortment of businesses that include an antique market, offices, artist studios, and non-profit groups while it waits to be sold and redeveloped.

CHAPTER 2

(SENSE OF) PLACE: SETTING THE SCENE

2.1 Dwelling as an Action

What is “Place?” Many authors have attempted to define Place as more than just a physical environment. Most seem to devote entire books to describing what their idea of “Place” means. This thesis will limit the scope of how to define place to primarily a phenomenological approach, as written about by such authors as Martin Heidegger, Gaston Bachelard, Christopher Alexander, and Stewart Brand. Phenomenology is a method of philosophical inquiry and theory that focuses on the importance of analyzing the structure of conscious subjective experience.¹ While the field uses this framework for analyzing and understanding several topics, this thesis will focus on a series of authors that build upon the ideas that Martin Heidegger laid forth in his 1951 lecture and then later paper, *Building. Dwelling. Thinking.* to define Place.

Heidegger poses the questions, “What is it to dwell? How does building belong to dwelling?”² These questions highlight the distinction that he is making between building as a noun, building as a verb and dwelling. Dwelling he argues, is the product of building (verb), yet it is also a part of the action to build. He supports this point through a short foray into German linguistics, tracing words back through time to their roots to illustrate how meanings have changed over time, and the passive words we use to describe our home used to have deeper meaning tied to the concept of dwelling:

But if we listen to what language says in the word bauen we hear three things:

1. *Building is really dwelling.*
2. *Dwelling is the manner in which mortals are on the earth.*
3. *Building as dwelling unfolds into the building that cultivates growing*

1 Oxford University Press, “Phenomenology”

2 Heidegger, “From Being and Time,” 347.

*things and the building that erects buildings.*³

Heidegger continues to say that dwelling by people comes from being in harmony with the “fourfold,” or “earth and sky, divinities and mortals.” From here, Heidegger argues that in harmony with nature is the only way to dwell, and that the ideal example is the Black Forest farm. He crafts this argument by again using language and root meanings of words in support of his interpretation of the fourfold and balance between elements to create harmony with nature. Finally, he shifts to conclude that:

*Dwelling, however, is the basic character of Being...that building belongs to dwelling and how it receives its essence from dwelling...But that thinking itself belongs to dwelling in the same sense as building...Building and thinking are, each in its own way, inescapable for dwelling. The two, however are also insufficient for dwelling so long as each busies itself with its own affairs in separation, instead of listening to the other. They are able to listen if both – building and thinking – belong to dwelling.*⁴

While Heidegger is clearly making a distinction between the idea of a building (noun), and the idea of dwelling, the scale of his distinction is limited to the idea of housing and home life and how it is necessary to be in nature to be successful in dwelling. This defining of dwelling, which can also be an interpretation of place is limited in scope and an overly romantic way of viewing the world. People today are migrating into the city, which currently has less of a connection to nature as Heidegger describes it. There is also a growing trend of blending home and work through moves such as tele-working from home, designing sleeping pods and recreational areas into offices, and increased need for traveling/time away for work. Heidegger is arguing the need to integrate with divinities while today’s society is increasingly diversifying how that integration is defined and accepted. As outdated as elements of Heidegger’s arguments are, the fundamental distinction between built form and the deeper understanding of dwelling, as well as his argument using language are still relevant in the phenomenological understanding of

3 Heidegger, “From Being and Time,” 349-350.

4 Heidegger, “From Being and Time,” 362.

place today.

2.2 Memory & Imagination

Building off Heidegger's understanding, Gaston Bachelard's *Poetics of Space*, continues to expand the idea of Place as an understanding beyond just the built environment. Much like Heidegger, Bachelard also focuses on the concept of space as an understanding of experiences. However, instead of analyzing linguistics he is building an understanding through poetic analysis of imagery, specifically the images of home.

Bachelard begins by making the distinction that images of the home can be a singular holistic image, or a collection of smaller images, and that these images turn the house from an object into an attachment. This is a similar proposal to Heidegger's notion of building versus dwelling. Bachelard expands this notion into an anthropocosmic view of the house as our first universe, and so it comes to bear memories of the past, and imaginations for the future. This concept of *Memory* and *Imagination* is one that Bachelard continually returns to and expands upon in his poetic analysis of space. He combines the two as a concept of analyzing imagery in terms of the daydream; a combination of memory and imagination that is not linear and creates a whole perception that is a sum of individual moments, much like the image of house can be a collection of images that also make up a singular image or understanding.⁵ But all of these images remain internal to a being, they exist in the mind.

Bachelard then relates these internal images, or symbols, to the reality of the external world through the intermediary of movement or action. He quotes George Sand, "What is more beautiful than a road? It is the symbol and the image of an active, varied life."⁶ This relationship between the individual internal understanding of space, and the collective reality of actions and experiences is critical to relating shared imagery and collective understandings of symbols, such as shelter or maternal figures. This parallels

5 Bachelard, "The Poetics of Space," 30-32.

6 Bachelard, 33.

the psychoanalytical tactic of collective unconscious put forth by Carl Jung, whom Bachelard is familiar with and references in *Poetics of Space*. The action of moving between the individual understanding and the collective reality is how we understand the world. We mark this understanding on the world as we experience it, through images, stories, and objects: “Thus we cover the universe with drawings we have lived.”⁷ This constant movement between internal and external creates our perceptions, and any gaps that exist are filled by our memories and imaginations (based on our experiences).

Returning to the house image, Bachelard begins to identify certain elemental images to further analyze based on two principles he puts forth: verticality and centrality. Bachelard’s archetypal house has three levels, the ground level, the attic above, and the cellar beneath. These levels are what Bachelard uses to dissect the house image further, drawing heavily from psychoanalytical theory. He equates the attic as the upper most portion of the home, it is the rational and intellectual representation of ourselves, our conscious perception that is closest to the sky. The cellar becomes the unconscious, the “dark entity” that sits below the surface. It reaches into the depths and becomes the “cosmic roots” of both the house and the mind. Thus the poetic image of the house begins to personify the human mind, the internal universe. But the home is also situated in a broader world, the collective reality, and so it represents an internal origin, a centrality. Bachelard argues that this centrality of the house image is a condensation of intimacy. The centrality of the house as an internal origin, from which we can relate to the external collective, not only represents an origin of location, but also an origin in time. Thus, one’s childhood home as a memory and image becomes critical to Bachelard in exploring the poetic images of the house. As Bachelard begins to describe the milieu of images in a home within this context, “For instance, in the house itself, in the family sitting-room, a dreamer of refuges dreams of a hut, of a nest or of nooks and corners in which he would like to hide away, like an animal in its hole.”⁸ The reader can begin to

7 Bachelard, “The Poetics of Space,” 33.

8 Bachelard, 50.

imagine oneself in these places, drawing on our own memory and imagination to fill the archetypal framework with our own daydreams, memories and imaginings. Thus, language becomes a framework for sharing experiences and images, but in such a way that each individual maintains their own unique perception. This is much like how legends and myths can come to represent a society, yet there are innumerable slight variations that develop. Carl Jung's psychological theory on archetypal symbol also draws on this notion of over-arching framework of images that are shared and understood by many, yet can be used to psychoanalyze an individual. Bachelard alludes to this complexity of representation in images, "Great images have both a history and a prehistory; they are always a blend of memory and legend..."⁹ Memory serves an individual, legend serves a society.

While Bachelard poetically weaves together logical developments surrounding the notions of memory, imagination and images, he tends to focus on the individual's perception of an image as it relates to their childhood home, much like Heidegger. He only ever briefly mentions ideas of the broader context, always returning to how it serves to situate a home, and thus an individual's psyche. This leaves many questions unanswered, such as how one can understand a group of people through their shared images? Can we look at how a collection of people resonate with shared images to understand communities? How do we develop shared stories and experiences that can provide insight, imagination, and dreams in today's built world?

2.3 Sacred Space and Resonance

In Mircea Eliade's *The Sacred and Profane*, published in 1987, he writes about two distinct modes of being in the world – sacred and profane - and that in order to exist in the sacred realm, one must look beyond the human to the "wholly other" as put forth by Rudolf Otto in "The Sacred." Otto's "wholly other" describes the experiences of

9 Bachelard, 53.

terror, awe-inspiring mystery, wrath, and sublime as stemming from numen, or god.¹⁰

While Eliade's book is based primarily on religion as a concept and mode of being, much of how Eliade is building his argument can be extended to understanding Place. We can replace the notion of Sacred as it relates to a religious understanding of space with the idea that Place contains an intangible sense of something deeper as defined by Bachelard et al. Eliade steps the reader through the developing of a concept through logical arguments that build off each other to help the reader reach a very complex understanding of sacred space.

“The sacred is saturated with being,”¹¹ Eliade poses that a stone or tree can become something else by revealing its cosmic sacrality, or its sacredness, but to the profane view, it remains a simple stone or tree. This same logic is then applied to an understanding of space, “For religious man, space is not homogeneous; he experiences interruptions, breaks in it; some parts of space are qualitatively different from others.”¹² Here Eliade is laying the base for his dual views of the world; that the world becomes deeper when man or woman is connected to the sacred. The profane space of the world becomes a “formless expanse surrounding it [sacred space]” and that this expanse reveals the sacred space as fixed points that constitute the world and reveal the absolute reality. This notion of two types of space is fundamental to Eliade's understanding of the world as he seeks to define why some spaces are “qualitatively different.”¹³

Continuing to elaborate on sacred space, Eliade poses that man seeks to live at the center of these worlds, “If the world is to be lived in, it must be founded.”¹⁴ Therefore, by living at the center of this world, we are giving it an origin point. A fixed point in space to move to and from. In the profane space, there is no origin and thus no direction or orientation, it is formless. Eliade poses that we fixate on certain spaces that are sites of important memories, such as birth, or first kiss, or first travel and that by doing so, we are

10 Eliade, “The Sacred and Profane,” 10.

11 Eliade, 12.

12 Eliade, 20.

13 Eliade, 15.

14 Eliade, 22.

imbuing these spaces with an individual sacredness, even if the person is nonreligious. Other spaces are determined by others for us, such as churches, synagogues, or temples and are collectively sacred. He states,

For a believer, the church shares in a different space from the street in which it stands. The door that opens on the interior of the church actually signifies a solution of continuity. The threshold that separates the two spaces also indicates the distance between two modes of being the profane and the religious. The threshold is the limits, the boundary, the frontier that distinguishes and opposes two worlds - and at the same time the paradoxical place where those world communicate, where passage from the profane to the sacred world becomes possible.

A similar ritual function falls to the threshold of the human habitation, and it is for this reason that the threshold is an object of great importance.¹⁵

Akin to Bachelard, Eliade is beginning to integrate images that invoke more than what they are, symbols or signs of a deeper collective understanding of the world. This is a theme that Eliade continues to return to at various points throughout the book, particularly to images from mythology and religion. Much like how Eliade defined sacred and profane space as creating an origin point, he expands those definitions to cosmos and chaos to include an origin of time.¹⁶ Cosmos becomes the sacred world, and Chaos becomes the profane world. This symbolic duality is present in most origin myths, regardless of the culture they stem from. Cosmos is what forms after creation, or transformation of chaos into order. So if living in sacred space defines an orientation in space, then creation defines an origin of time. Before creation is chaos, and outside of sacred space is the formless expanse. Similarly, the end of the world is a return to chaos.

Eliade has now built our understanding of sacred space in relation to the human and to time, and now he expands it to include planes of existence. He poses three planes of cosmos, the upper being the divine, or realm of the god(s), the middle being the human

15 Eliade, "The Sacred and Profane," 25.

16 Eliade, 32-35.

plane, and the lower being the underworld and dead. Much like the poetic image that Bachelard is putting forth of the home, with the attic, middle ground, and cellar; these planes are connected. In Bachelard's image it is through stairs, Eliade uses a more general term, *Axis Mundi*, to define a vertical axis that puts them in communication with each other. Eliade's imagery uses entire worlds that connect, rather than Bachelard's which becomes a representation of the individual human psyche. Eliade poses that the individual seeks to recreate these cosmic level events on a continual microcosmic scale through the concept of *Imago Mundi*. These cosmic images become woven into daily life, "The creation of the world becomes the archetype of every creative human gesture, whatever its plane of reference may be."¹⁷ The creation of a home recreates cosmic creation, the raising of a church establishes an origin and axis mundi, the invasion and destruction of a city is the end of a world. At any number of scales, we seek to create origins in time and place, most often through building, "...cosmic symbolism is found in the very structure of habitation. The house is an imago mundi."¹⁸ Building is a creation of a world that we have chosen to inhabit.

Eliade's whole understanding of sacred space is based upon religion and that the notion of the "wholly other" comes from an external source. If we set aside Eliade's religious concepts and accept a more holistic explanation that this deeper understanding of space stems instead from shared imagery and narrative, then we can apply this understanding to a broader context of the world. Writing in the late 1980's, he alludes to the modernization of the world as a cause for the lack of understanding of the sacred, "The process is an integral part of the gigantic transformation of the world undertaken by the industrial societies, a transformation made possible by the desacralization of the cosmos accomplished by scientific thought and above all the sensational discoveries by physics and chemistry."¹⁹ Understanding Eliade's sentiment of space as more than just a physical construct, and how it relates to orientation, origin, mythology and symbology

17 Eliade, "The Sacred and Profane." 45.

18 Eliade, 53.

19 Eliade, 51.

is a continuation of what Heidegger and Bachelard have put forth. Space then becomes a language of images and symbols that tap into a shared understanding of the world, and this understanding and language orient us both individually and collectively to the world.

In summary, Heidegger, Bachelard, and Eliade continually reference evolution of language as well as the importance of time and experiencing the passing of it as crucial to understanding their concepts of dwelling, home, and space. These key concepts of building as a verb, memory and imagination, and resonance have together informed my definition of Place. Resonance here meaning how one responds to an image, environment or experience. Does the image evoke an internal echo? Are you re-creating or re-experiencing an origin? All of these elements deal with action and time. The simplest breakdown of what a narrative is comprised of is people, place and time. Formally studied, these are understood as: characters, setting, and plot.²⁰ In real estate

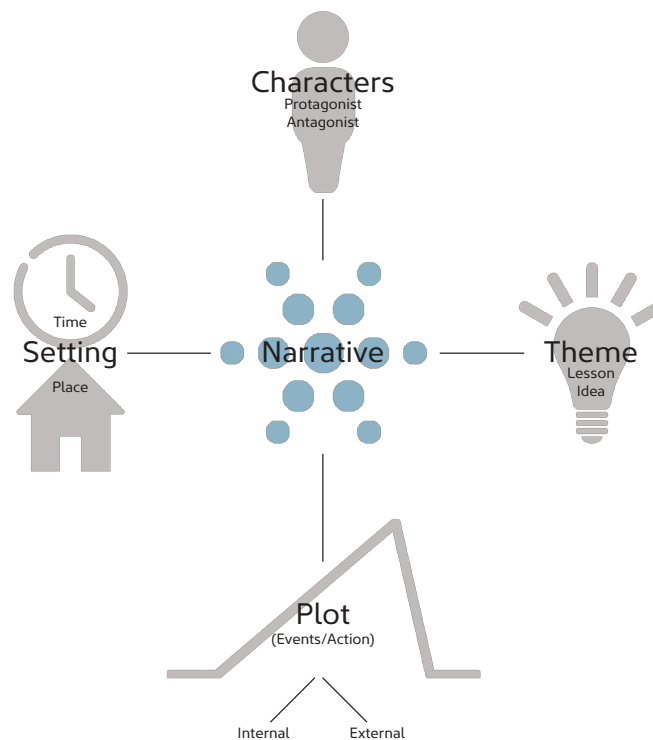


Figure 1: Elements of a Narrative

development, people and place are a given, but plot is not. If there are no people, then the development is a failure and has been abandoned, and if there is no place then it does

²⁰ Docimo, Lupiani, "Plot of a Story."

not yet exist or was already removed. But plot determines the experience. And to have a narrative, one must have all three elements (Figure 1). But what is the narrative of Place?

CHAPTER 3

(NON) PLACE: DEFINING THE CONFLICT

3.1 The Feeling Without a Name and Pattern Languages

Similar to Eliade's theory of Sacred and Profane, I will use the term Non-Place as the opposite of Place. It has been addressed by several phenomenological authors who each give it a different name, but it is always in relation to lacking feeling, character, depth, life, spirit, or other similar terms that could be used to describe Place. One of the main phenomenological authors on the subject, Christopher Alexander, brought it to the mainstream discussion in the late 1970's and early 1980's with his book *A Timeless Way of Building*. Since then authors such as Stewart Brand and Vishaan Chakrabarti have continued to elaborate and muse on what causes Non-Place.

In *The Timeless Way of Building*, Christopher Alexander lays out his definition of what makes a Place, how and why it is lacking in modern built forms, and how it should be remedied. Similar to Bachelard, Alexander takes a very poetic approach to his definitions. For example, how he defines Place: "There is a central quality which is the root criterion of life and spirit in a man, a town, a building, or a wilderness. This quality is objective and precise, but it cannot be named."²¹ He continues to develop this definition of "the quality without a name" as an extension of one's individual story based on "patterns of events" that take place in that location. These events influence the built space, and the built space is in turn influenced by them. A place becomes alive by interacting with these events, and the more alive it is, the more a part of nature it becomes, and thus it becomes whole. This is what makes Place according to Alexander and he calls it a pattern language or a series of patterns that come together in innumerable ways to form a whole.

²¹ In the second part of *The Timeless Way of Building*, Alexander discusses how Alexander, "The Timeless Way of Building," 19.

many modern buildings have ceased to be alive, “But in our time the languages have broken down. Since they are no longer shared, the process which keep them deep have broken down; and it is therefore virtually impossible for anybody, in our time, to make a building live.”²² In this section, he writes heavily about how an individual cannot create these patterns, and that many of the buildings that he feels as being most alive were developed and created through communal effort, such as a family farm’s barn. Most often, these examples are nostalgic for a by gone era. The patterns rely on reacting to the needs of the people using the building, the constraints of the site, and are most alive if developed incrementally by hundreds or thousands of people over generations. Layering small improvements of perfecting moments in a building and creating “rules of thumb” much like the process of evolution in genetics. These small changes accumulate into series of patterns, of events and built space, to create a “language” of patterns that can be combined into innumerable varieties to develop spaces that are alive.

The third and final part of Alexander’s book continues to expand on the pattern language as a solution for dead architecture at any scale, from a small home to an entire city or region. The language relies on groups of people coming together to influence the final outcome, as each person has their own interpretation and understanding of the pattern language, and to become alive, buildings must be made out of shared patterns that are deep. Similar to Jung’s theory of the collective unconscious and the archetypal symbols and Bachelard’s understanding of shared images. Alexander summarizes his pattern language theory, “Finally, within the framework of a common language, millions of individual acts of building will together generate a town which is alive, and whole, and unpredictable, without control. This is the slow emergence of the quality without a name, as if from nothing”²³ “And as the whole emerges, we shall see it take the ageless character which gives the timeless way its name. This character is a specific, morphological character, sharp and precise, which must come into being any time a building or a town

22 Alexander, “The Timeless Way of Building,” 225.

23 Alexander, 493.

becomes alive: it is the physical embodiment, in buildings, of the quality without a name.”²⁴

Christopher Alexander’s theory of a pattern language taps into the phenomenological roots of Heidegger, Bachelard, and Eliade as discussed in the previous chapter. He ties the built world to the individual’s story, as well as the collection of individual stories that make up larger events that happen in time (myth). When Alexander talks about whether a building is alive or dead, it can be similar to how Bachelard discusses Memory and Imagination. An alive building is in sync with the events (patterns, stories) happening around it; it connects to the past and future, it creates a place for people to daydream. A dead building is out of sync with events (patterns, stories) and so it cannot facilitate connections to memories or imaginings. Yet, Alexander tends to dismiss the possibility that a single person can tap into this language and create or guide a building to be alive. He holds a romanticized, nostalgic view of how buildings were created in the past and does not give any indication on how this pattern language can be adapted for current and future building techniques and standards. Alexander also hints at how this pattern language can be used to develop entire towns, but is that not how they are already developed? By many individuals or groups working to develop individual parcels that weave together into a whole? And if we listen to Mircea Eliade’s perspective on the need for the Profane to make a Sacred space, then what happens if all buildings become alive? There is then no contrast and so no variety, and then being alive holds less value.

3.2 Magazine Architecture, Unreal Estate, and Preservation

Another author that has written about Non-Place is Stewart Brand in his book, *How Buildings Learn. What Happens After They Are Built?* He begins the book by setting the stage of the current problem, using case studies and anecdotal stories to draw the reader in. He makes short, concrete statements, such as “Architecture, we imagine,

24 Alexander, “The Timeless Way of Building,” 511.

is permanent”²⁵ that succinctly define the root of the problem he is proposing. As Brand is laying out the different elements of the problem in his first chapter, he is weaving in the ground work for his proposed solution(s) as well as current theories, publications and case studies. He is beginning to build his argument even as he defines the problem. The next four chapters outline potential strategies and his hypothesis towards remedying the problem of buildings not being adaptable. The middle section of the book, Chapters Six to Ten, details the current and historical context of the problem and how they either support or counter his proposed strategies. The last two chapters and the appendix look forward towards applied solutions and proposed further study of whether the solutions worked as intended. For now, I will focus on the first, fifth, and sixth chapters and return to the remaining chapters later.

On the first page of his book, Brand alludes to some of the concepts previously discussed by Martin Heidegger as he begins describing his view point on architecture: “The word “building” contains the double reality. It means both “the action of the verb build” and “that which is built” – both verb and noun, both the action and the result. Whereas “architecture” may strive to be permanent, a “building” is always building and rebuilding.”²⁶ This return to language, and emphasis on the action of building is key component to Brand’s argument that modern architecture does not adapt. Adaptation to Brand is synonymous with Place, and he quotes Christopher Alexander while discussing this, “In nature you’ve got continuous very-small-feed-back-loop adaptation going on, which is why things get to be harmonious.”²⁷ But unlike Alexander, Brand does not focus on the parts of a whole, but rather the passing of time that is inherent in adaptation. He focuses in on the problem of Non-Place in current architecture as not a fault of being out of touch with a subconscious understanding of patterns, but that designers are only focusing on designing for a moment in time, or a single still image.

He calls this “Magazine Architecture” or image based architecture and devotes all of

25 Brand, “How Buildings Learn,” 2.

26 Brand, 2.

27 Brand, 21.

Chapter Five to the concept. Magazine architecture, according to Stewart Brand, stems from the architect's role as a sales person, and as such most architects are designing for their portfolio and for awards; both the primary tools they use to help them drive more business. This leads to buildings being designed as objects, art pieces, or visual moments that tend to emphasize the exterior rather than the interior and the users. Here Brand advocates approaching architectural design as a craft rather than an art to encourage a focus on the function (without sacrificing aesthetics).

Image architecture is compounded by the separation and fragmentation of design and construction industries to help mitigate lawsuits and liability.²⁸ Brand continues to elaborate on how the current traditional system of relationships and their fee structures also compounds this problem. Since an architect's fee is typically a percentage of the project, it sets up a potential conflict of interest. If the architect stays on or below budget as fiduciary duty would dictate, then the client is happy, but if they go over budget, or convince the client to increase it when it is unnecessary to do so, they would make more money. In addition to the problems of the design and construction sequence that Brand is pointing out, another major issue that leads to buildings that do not adapt is that architects are isolated from the end users (occupants) and the people that are the source of building performance feedback (developers and lawyers). He does acknowledge the growing trend of architects utilizing post occupancy surveys to help counteract this disconnect, but says it is not enough. Brand poses that architects must move from an image-based architecture to that of a process architecture. One that embraces continual change in program, accommodates end users, and readily allows for adaptation.

In Chapter Six, Stewart Brand focuses on the distinction between real estate and architecture, "Is your house primarily a home or primarily an asset?"²⁹ Brand identifies a difference in use value and market value, that are sometimes at odds with each other, and relates to his notion of three contradictory lives of a building: as a habitat, as a

28 Brand, "How Buildings Learn," 60-62.

29 Brand, 73.

property, and as a component of the surrounding community. Expanding on this notion of this three lives approach, he posits that the individual (habitat and property) learn the quick fix for the symptom, and the community learns the problem cure. This is similar to how Alexander discusses incremental growth and adaptation, where an individual may make small steady changes, and then the whole can become deep again. Looking further at the community aspect of real estate, Brand discusses several urban planning theories and precedents, including personal experiences, “A couple decades back, what had been zoned as a light industrial waterfront area in Sausalito, California was invaded by illegal residential houseboats...The result is mildly scruffy and utterly convenient and neighborly...I visit friends in nice homes elsewhere and it feels as if they live in a desert, zoned out of a walkable way of life, stuck in a place where nothing ever changes.”³⁰ He tends to fault urban planning along with the market value aspect of real estate with creating communities that cannot adapt. Market value is the value of a property to a community, or the value it can be sold at,³¹ and according to Brand, it is most often based on curb appeal and the context within the whole neighborhood. This market value combined with a high turn over rate in home ownership can lead to a trade-up mentality where buildings are then only treated as investments. As an investment, the building is only improved in what is deemed more valuable by the larger market, and if the improvements are too large or extensive, then the building is torn down and replaced:

This is why cities devour buildings. Commercial centers act like gravity wells, with everything nearby getting sucked into their vortex. The closer a building is to the center, the more endangered. Architecture critic Ada Louise Huxtable observed: ‘There is no art as impermanent as architecture. All that solid brick and stone mean mothering. Concrete is as evanescent as air. The monuments of our civilization stand, usually, on negotiable real estate: their value goes down as land value goes up.’³²

These more extreme, or fast paced, rates of change are harmful to fostering depth,

30 Brand, “How Buildings Learn,” 79.

31 “Market Value Definition,” web.

32 Brand, 82.

as they lead to the constant destruction and rebuilding of buildings rather than a slower steady rate of change that leads to small constant adaptation, “Turnover refreshes, but it also erases. Nearly everything about real estate estranges buildings from their users and interrupts any form of sustained continuity. A triumph of abstraction, real estate operates distant from the daily life of building use, distant from the real. The “real” in “real-estate” derives from *re-al* – “royal” – rather than from *res* – “thing” – which is the root of “reality.” Realty is in many ways the opposite of reality.”³³ Rebuilding is often necessary, and not always a bad thing, but done too much, it can begin to erode and eventually erase Place.

In Chapter Seven, Brand focuses on an alternate solution to rebuilding: Preservation. He begins with an explanation of what the preservation movement is and when it began, and then highlights how it ties into his proposal of adaptation by asking the question, “What makes some buildings come to be loved?”³⁴ Brand gives a simple answer based on surveying people, “It is old (citation).” Next he outlines many of the basic arguments that preservationists have been making for decades about why it is better to reuse old buildings rather than to tear them down. These arguments can be simplified into two main drivers: it is cheaper, and more sustainable. Often times, the total cost of acquiring and renovating a building is less than tearing it down and starting new construction. It also uses less new material which saves both money and embodied energy. Brand goes on to continue to list other positive aspects of saving old buildings, including tourism, and then to talk about different a spectrum of approaches to preserving buildings. On one extreme are preservationists who would turn old buildings into pilgrimage sites, not to be used, only maintained and honored. The middle of the spectrum is occupied by those who would adapt old buildings to new uses, and the least conservative end are those that argue to keep the visually interesting aspects of the building (most often the facade) and to build everything else as new. There is often a

33 Brand, “How Buildings Learn,” 87.

34 Brand, 90.

time and place for each of these approaches, but Brand focuses in on the adaptive reuse strategy:

*Adaptive Use: Robert Campbell wrote about these interior photos: 'Recycling embody a paradox. They work best when the new use doesn't fit the old container too neatly. The slight misfit between old and new - the incongruity of eating your dinner in a brokerage hall - gives such places their special edge and drama...The best buildings are not those that are cut, like a tailored suit, to fit only one set of functions, but rather those that are strong enough to retain their character as they accommodate different functions over time.'*³⁵

These visual remnants of previous lives create ties to the past, and imply the possibility of being adapted again in the future. They create vignettes of memories and imaginations of previous experiences that happened in that space.

Overall, Brand is building off of the problem put forth by Christopher Alexander of modern buildings being dead. Alexander focuses on a poetic description of the problem, and a poetic solution to it; a pattern language. Brand however looks beyond just architects and designers to identify broader patterns that are influencing designers to design only for a visual moment in time, with little thought for how the building(s) will have to change and adapt in the future. He identifies the problem of immutable architecture as stemming from the desire for architecture to be art, and the buildings' need to be an investment. Architecture-as-art is not a new dilemma, it has walked the line between art and function since it began, yet architecture still strives to be art. Perhaps the need to constantly sell in architecture can be mitigated by combining development, architecture and construction. This is a solution that seems to be gaining popularity in today's world. However, real estate remains tied to market value, making Brand's argument for steady change seem somewhat impractical. The real estate market trends are not steady, they fluctuate constantly, sometimes gradually, and sometimes sharply up or down. These rates of change are hard to predict and can have huge impacts on how

35 Brand, "How Buildings Learn," 104.

the built world develops due to the corresponding link between land value and building value. The economics of capitalism are also ever present and the need for the rate of return on investment to be higher than the interest rate or expenses is a dominant force. Yet the individual's and community's need for a past (a "Place") is equally prevalent, but seems to exist as a separate argument. What happens if capitalism were to support preservation, and in return preservation supported capitalism?

3.3 Sameness

An author and speaker who provides a different, much more urban centric, approach to the problem of Non-Place is Vishaan Chakrabarti. In his 2018 TED Talk, *How We Can Design Timeless Cities for Our Collective Future*, he discusses what he terms "Sameness;" what it is, how it came about, and how it might be solved. Chakrabarti begins his presentation with images of cities, some old, some new. The images of the older cities show iconic architectural moments, such as the pedestrian bridges of Venice or the favelas of Rio de Janeiro and in contrast, the young (21st Century) cities are presented as a single slide of indistinguishable modern cities. He states that it is now illegal to build cities the way we used to. He cites the cause of this "creeping sameness" as three-fold: mass production, regulation, and the fear of difference. Each cause is not necessarily a bad thing in and of itself, but since the architecture is reacting to these elements rather than the elements reacting to architecture, the result is a homogenized built landscape across the United States and beyond.

Vishaan Chakrabarti cites the unimaginative and uniform application mass production of materials such as glass, steel, concrete, and drywall as the first driver of Sameness, or Non-Place.³⁶ Plaster used in Roman architecture had a very different look than plaster used in Spanish architecture, yet today we use concrete, steel, and glass in much the same way in every city. The second driver of bland buildings in cities is

36 "How We Can Design Timeless Cities for Our Collective Future," 3:00

that of regulation.³⁷ Chakrabarti discusses building codes for things such as street and sidewalk design, fire truck turning radii, and the need for duplicate means of egress. Safety concerns are always important, and he acknowledges that he is not trying to reduce or change the safety elements, only in how they are applied. For example, instead of making streets bigger to account for the wide turning radius of a fire truck, perhaps the same safety procedure performed by the truck could be performed by several drones instead, eliminating the need for the large amount of asphalt. Another regulation he discusses is the need for multiple egresses from a building. This redundancy in design has the unintended consequence of making buildings larger due to developers trying to spread this additional cost across more units. The additional egress routes also require hallways to connect them, and these are often monotonous and bland, devoid of sunlight and character. Chakrabarti also cites the increasing size and cost of these buildings as a cause for the current lack of affordable housing in many cities. The final driver of architectural uniformity is a fear of being different.³⁸ He posits that this fear stems from a couple of places, the fear of being mocked (by colleagues, society, etc.), and the fear of being sued. If an architect designs a building that is radically different, will people accept it? If it uses new materials, will it work as designed? If it doesn't, will I get sued for it? After outlining the causes of Sameness, or Non-Place, Chakrabarti posits several potential changes that all revolve around "evoking the local." The first is to "inject the local into the global." An example he uses of how this is already happening in the food world is the recent boom of growth in the craft brewing industry, and the decline in processed foods. Many people are choosing to support local breweries rather than national chains, as well as local farmer's markets and homemade food products rather than items such as "Wonder Bread." The second example he gives is to gear technology towards re-imagining character. By that, he proposes utilizing current technologies such as autonomous vehicles, but adapting them not to fit on the same streets but shrinking

37 "How We Can Design Timeless Cities for Our Collective Future," 3:19

38 "How We Can Design Timeless Cities for Our Collective Future," 6:21

them so that they can be safely integrated into a pedestrian and bike-oriented street. A more imaginative solution Chakrabarti proposes is the invention of the hovercraft wheelchair, that solves mobility limitations, without restricting people to designing ramps and elevators.

The final part of Vishaan Chakrabarti's talk focuses on current examples of how evoking the local is being used to combat sameness in current practice. He gives examples of his own research projects, as well as a current project from his office. He also cites several other architects that have recently completed affordable housing projects that focus on promoting community input, react to local climates, use local materials and employ local construction methods. He summarizes his talk, "We can grow cities that are high-tech, but also respond to the timeless cultural needs of the human spirit. I'm convinced that we can build cities of difference that help to create the global mosaic to which so many of us aspire."³⁹

While Chakrabarti posits many good points about potential catalysts of Non-Place and how they might be approached differently to avoid monotonous solutions, he focuses exclusively on the urban scale or large cities. From an urban planning and numbers position, the city is the future solution, and high density areas will be the norm. But in today's world, there are still a large number of people living in rural areas. It is a different way of life that many people still value and hold on to, and so it cannot be ignored or assumed that everyone will move into a city. How do these problems get addressed when funding might have to stretch across less people for the same problems?

Whether it is Non-Place, Sameness, inflexibility, or unalive, there is a trend in the modern built world of architecture lacking Place. It stems from an insensitivity to change over time, an ignorance of the importance of little moments, and design that bends to the will of mass production rather than the other way around. But why does this Non Place seem exceptionally rampant among new developments? What about the development process is prone to creating cold boring buildings?

39 "How We Can Design Timeless Cities for Our Collective Future," 12:30

CHAPTER 4

PROCESS: INFLUENCES

4.1 Real Estate Development Players and Influences

In *Real Estate Development: Principles and Process*, the authors Mike E. Miles, Laurence M. Netherton and Adrienne Schmitz seek to outline the fundamentals of the real estate development process. Published by the Urban Land Institute, the book is written such that it can be used as a textbook for an introductory class on the topic. The authors begin by defining real estate development as “the continual reconfiguration of the built environment to meet society’s needs,”⁴⁰ and the constant reconfiguration involves both the public sector and the private sector whose goals usually overlap but do not perfectly align. The private sector is typically focused on maximizing profit, whereas the public sector works to ensure communal wants and needs, such as safety, community, and sustainability.⁴¹

The real estate development process, while usually led by a single person or company, is made up of a complex team of people from a wide range of professions. This team might include people such as: private sector developers, public/private partnerships, architects, engineers, landscape architects, land planners, urban designers, building contractors, site development and grading contractors, environmental consultants, traffic and transportation consultants, biology consultants, geotechnical and soil consultants, hazardous substance consultants, air quality consultants, greenhouse gas consultants, noise consultants, market research analysts, lenders, construction lenders, permanent lenders, joint venture partners, appraisers, public finance consultants, attorneys, accountants, real estate leasing agents and/or sales brokers, marketing and public relations consultants, property managers, and regulators.⁴² The developer and

40 Miles, Netherton, & Schmitz, “Real Estate Development,” 1.

41 Miles et al., 1.

42 Miles et al., 29 - 30.

their team work together to create value by producing a product that meets the needs of a community. Creating value most often means fulfilling a need, such as more apartments, but can be more broadly interpreted as providing space.

The product for real estate development is improved real estate, which is typically a new building, but it can also include adding utilities, building roads, or simply a change in use of an existing structure to better fill the need of an area. The Urban Land Institute (ULI) classifies real estate products by property or project type such as, Residential, Retail, Office, Industrial, Lodging, and Mixed Use.⁴³ Like every product, its creation (or alteration) takes funding. Due to real estates' typically high cost, this funding is often attached to agreements that stipulate approvals for zoning, building codes, and provision of infrastructure.⁴⁴ Approvals come from the public sector at a variety of levels; zoning comes from the local level, where as building codes come from the national and sometimes the local level. Navigating these approvals, in addition to the team of people involved in the real estate development leads to a complex process with many different interwoven goals; "Today, development requires more knowledge than ever about the specifics of prospective markets, patterns of urban growth, neighborhood associations, traffic patterns, legal requirements, local regulations, contracts, building design, site development, construction techniques, environmental issues, infrastructure, financing, risk control and time management."⁴⁵

While the development process is complex, the general flow of events follows the same track which the authors have outlined as the eight-stage model of real estate development, shown in *Figure 2*. This outline serves as tool for understanding the basics of the process, as well as where key decision points fall in the life of the project. These decision points, the Feasible/Not Feasible paths, show how often in the process the viability of a project is reassessed. These are not the only decision points in the process, but they are the most critical. In development projects, there is almost constant decision

43 Miles et al., "Real Estate Development," 43.

44 Miles et al., 4.

45 Miles et al., 4.

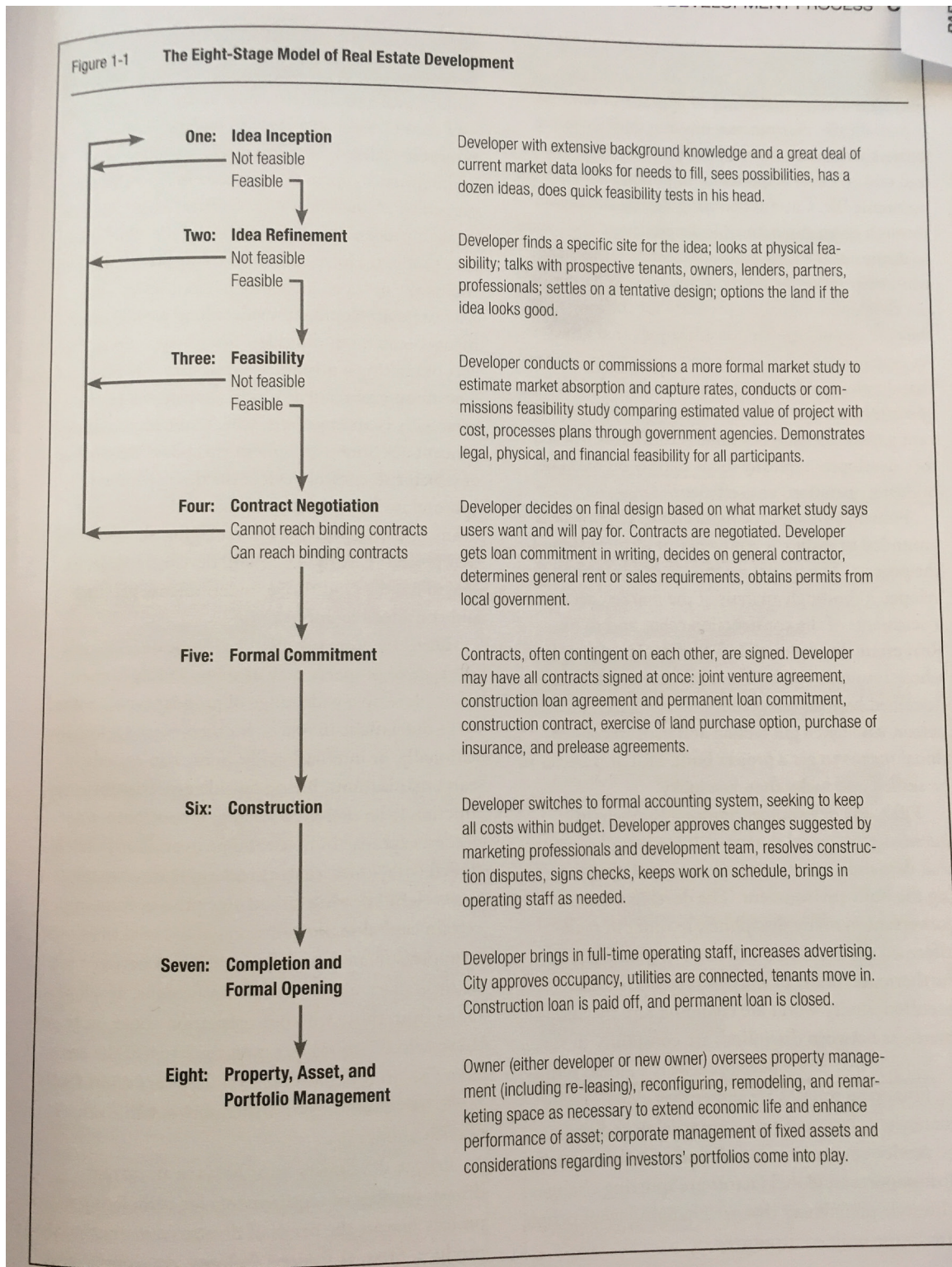


Figure 2: The Eight-Stage Model of Real Estate Development (Miles et al. 5)

making as new variables arise and more components are analyzed in more detail. These decisions are made not only on the current situation, but on what could happen over

the life of the project, and over the life of the building. Developers must also navigate the different functions within a project, which include design, construction, finance, management, marketing and government relations.⁴⁶

The first stage of the eight-stage model is termed Idea Inception, and it is brainstorming development ideas and then quickly checking them for financial feasibility potential.⁴⁷ This stage involves very little detailed analysis, and instead relies on general market trends and the developers understanding of a community, site and/or need. These ideas for projects can come from a site, a use or from capital (investors looking to invest their money). Once a developer has an idea, they test the financial feasibility using what Miles, Netherton and Schmitz call the “back of the envelope pro forma.”⁴⁸ This test is meant to be a quick estimation of what the cost of the project would be, and an estimation of what tenant(s) would pay in rent, and then using those estimates to create a projection of what the projects potential profit (if any) could be. This is not meant as a firm calculation, but a rough estimation to check and see whether the project has any merit to pursue further analysis and development.⁴⁹ If the project seems feasible after this idea generation and quick back of the envelope test, then it moves to the second stage, idea refinement.

In Chapter Twelve Miles, Netherton, and Schmitz outline the second stage of the real estate development process - idea refinement. This becomes the point in the process where reality and hard facts are analyzed. The authors break down four key activities that make up this stage, Market Research, Site Selection, Negotiation with other participants in the development process, and Project specification (Figure 3).

Market Research is comprised of gathering and analyzing data from three main categories - the environment, the local market, and the competition. The environmental

46 Miles et al., “Real Estate Development,” 4.

47 Miles et al., 175 - 176.

48 Miles et al., 176.

49 Miles et al. 178 - 179.

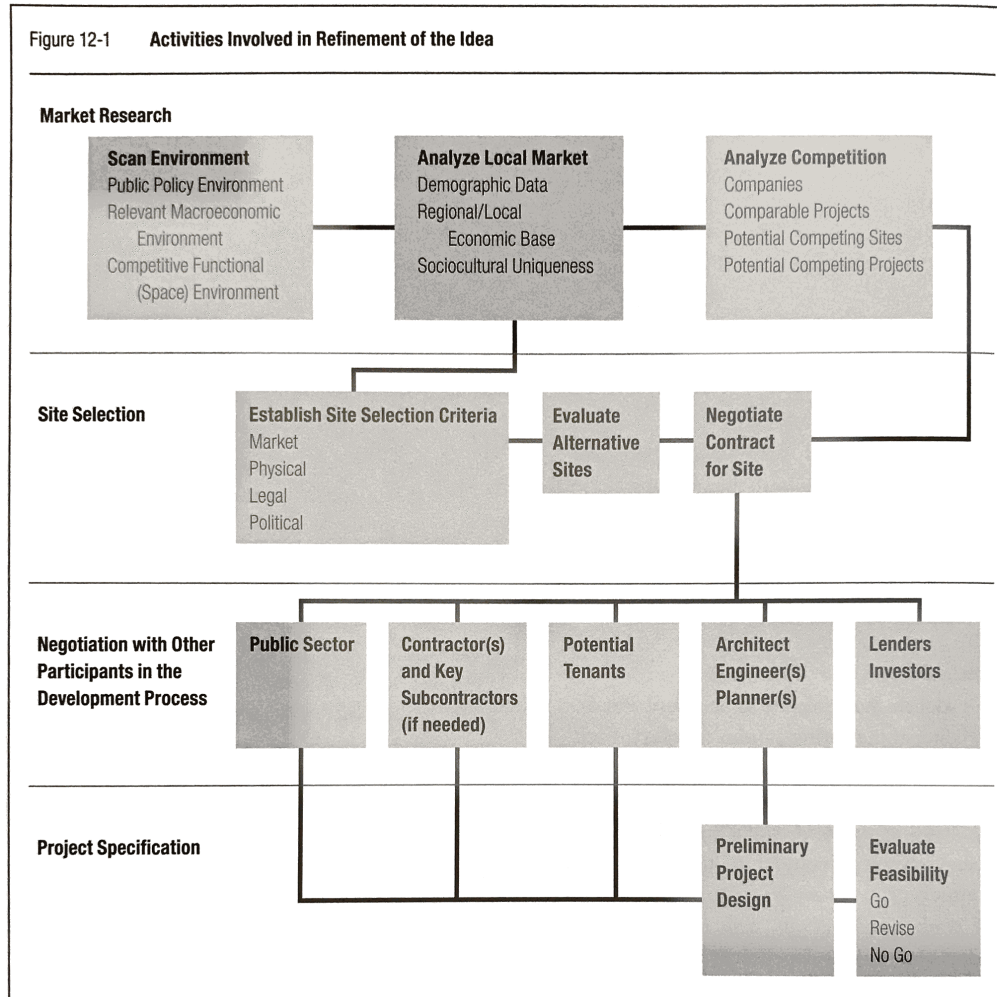


Figure 3: Phase 2 Idea Refinement Diagram (Miles et al.)

data is not about climate or vegetation rather, it is the local public policy environment, the broader macroeconomics, and the functional space environment. It is the political and financial climate surrounding the potential project. The local market data research is analysis of demographic data, economic base of the population, and understanding the sociocultural uniqueness of the area (also known as due diligence). Analyzing the competition is measuring the potential project against other projects, developers, or companies both current and potential.

Site selection informs what site would be a good fit for the project based on criteria set by the market research, project type, and budget. After looking at potential sites, the developer would then begin a contract negotiations for the one that best suits

the criteria they have established. It is once the site is under contract, that the developer begins the next key activity, discussions and negotiations with any stakeholders such as, the public sector, contractors, potential tenants, designers, lenders, and other investors. From these negotiations, the project specification begins. A preliminary design is done and a new feasibility test is done. At this point, the feasibility of the project is reviewed, and if it passes, then the project progresses to stage three, The (formal) Feasibility Study.

This second stage of the development process, which is typically given very little time in the life of a project, is the most critical point for forming an approach to place-making. It fundamentally shapes all aspects of the project as it moves from the back of a napkin to something with real data informing the preliminary design and decisions. At this point the project is still well in the control of the developer, and it is being primarily influenced by data and potential trends developed from that data (Figure 4). There is

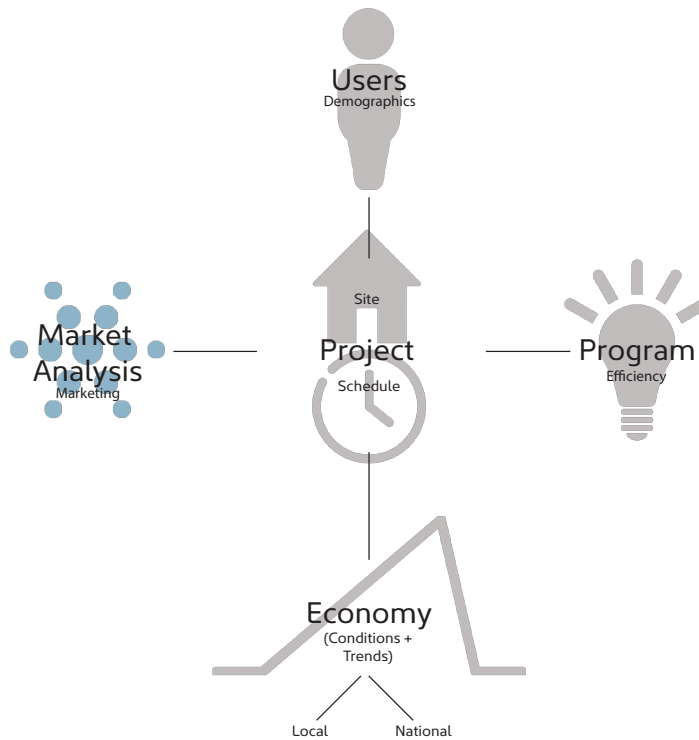


Figure 4: Elements of a Development

very little being analyzed that would give developers a deeper understanding of a site or project, especially in terms of Place. So it is no wonder that many developments

fail to see value in an existing site and chose to erase what is there to create the perfect development according to their data analysis.

4.2 Human Scale Design

One group that is trying to change this, through urban planning and design, is the New Urbanist movement. Founded in 1993 as The Congress for the New Urbanism, with their initial *Charter of the New Urbanism*, they set out to understand the root causes of “placelessness” and how to address them. The original group was incorporated as a non-profit and consisted of six architects: Peter Calthorpe, Andres Duany, Elizabeth Moule, Elizabeth Plater-Zyberk, Stefanos Polyzoids, and Daniel Solomon.⁵⁰ Their research focused primarily on modern suburbs sprawled around city centers and how placelessness was leading to a lack of community and increasing divides of culture, race and economics. The resulting document was a lengthy book of short essays that documented the issues and proposed solutions, always aware that one problem was intimately related to a whole network and thus the solutions were always interconnected and overlapping with other issues. The book was simplified into a single two page document that distilled three different scales at which to approach design solutions. These were followed by statements on how to approach design for those scales to achieve the New Urbanist goal of “the restoration of existing urban centers and towns within the coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conversation of natural environments, and the preservation of our built legacy.”⁵¹

The broadest scale at which the New Urbanists address the issues of placelessness is the region (Metropolis, city, and town). At this level they set forth nine statements about how a region should be, and how development should be approached, such as “The physical organization of the region should be supported by a framework of transportation

50 Leccese, McCormick, “Charter of the New Urbanism,”

51 Prashad, Sawswati, “New Architecture and Urbanism,” 1.

alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.⁵²”

The intermediate scale is the neighborhood, the district, and the corridor. Here they are focused again on defining first what this scale should function like to avoid placelessness, and then how to implement changes and developments that can help to avoid the patterns that they have identified as causing placelessness. For example, “Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.”⁵³

The final and most intimate scale they define is the block, the street and the building. Here the final nine guidelines focus more on sustainability practices, and design tactics to encourage walk-ability, community and safety. “Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.”⁵⁴ Altogether, the twenty-seven guidelines for designing community that they put forth result in a holistic approach to planning and design that emphasizes shared public spaces, urban density, public transportation, equity for all people, safety, and economic health.

The guidelines, a well intentioned, general highlight of what good New Urbanist practice should be, are written to be uniformly applied across the globe. Much like building codes, they outline an approach and minimum of what should be done that can be applied uniformly. If not taken further or adapted for the local, the New Urbanist agenda leads to a different, modern version of placelessness. These guidelines, and the people and movement behind them have led to a rise in mixed use developments across the country that more often than not locate themselves near transit stations. Yet still many of these developments do not feel like Places. They still feel monotonous and bland, just a different form of bland than the suburbia that New Urbanism was fighting against. The ideals behind New Urbanism are all desirable things to have in

52 Prashad, Sawswati, “New Architecture and Urbanism,” 2.

53 Prashad, Sawswati, 2.

54 Prashad, Sawswati, 2.

new developments, but they do not fully address and solve the issue of placelessness, or Non Place. Simply renovating an old multistory building in an urban center near a train line into a commercial storefront first floor and apartments above does not automatically lead to Place. It may be more interesting, at first glance anyway, than a new strip mall in suburbia along a highway, but just checking the boxes of the New Urbanist Charter is not enough.

Understanding the driving forces behind developer decisions, including current urban planning trends, reveals that developers are focused on data-driven designs that address the population en mass. Similar to the findings of the last chapter and the need for building codes, using data as a tool is not inherently bad, but allowing it to be the primary, and sometimes sole, influencer over a project and its design can lead to very functional, superficially attractive Non-Places. There is a need to address not only the local aspect of a site, but also its connection to memories and imaginations, and ultimately, what the experience is.

4.3 Precedent Study: Shortbread Lofts, Chapel Hill NC



Figure 5: Shortbread Lofts Street Front View

The seven story apartment building located in downtown Chapel Hill, North Carolina completed in 2014, named Shortbread Lofts, is a prime example of typical

recent real estate developments. Developed by Shortbread Lofts LLC and designed by GS Architecture, the building is situated along a bus route, just a few blocks from University of North Carolina's (UNC) Chapel Hill Campus. Looking at the photo above, the viewer would be challenged to be able to name the town, or even country based on the architecture. The interior is much the same (pictured below, Figure 6), typical higher-end apartments geared towards UNC students. There is nothing wrong with the building, it is a brand new well designed luxury building with plenty of amenities. It checks all the boxes of what the local market wanted, from a large rooftop garden patio, to a state of the art fitness center with tanning, a lounge for studying that includes several Mac desktops and printers, and having all utilities included in the rent. The apartments feature granite counters, in-unit washer dryers, huge living room windows and oversized closets.⁵⁵ What student (or person really) wouldn't want to live there? But what makes it memorable, what future does this building have? I can't imagine this building ever changing. It is designed for a single moment in time, especially a fleeting market of annual renters that probably won't stay longer than three to four years maximum and are exceptionally prone to the whims of fashion. Yet it was designed to be anywhere in the world. My last apartment in New England looked and felt much the same.

As a development project, Shortbread Lofts is highly successful. The property has 85-units with a mix of two, three, and four bedroom units that total to 271 bedrooms. Early financial feasibility testing, the back of the envelope pro forma, showed an estimate of \$29 million cost for land, construction and soft costs, which was less than the estimated value of \$35 million.⁵⁶ In the end, the project cost less, even with the addition of more luxury features after starting construction. The final total cost was approximately \$22.5 million⁵⁷ and while the final value was not published, the net operating income (NOI), which is annual income after expenses, was greater than \$2 million dollars.⁵⁸

55 Miles et al., "Real Estate Development," 304.

56 Miles et al., 176.

57 Miles et al., 256, 274, 301.

58 Miles et al., 333.



Figure 6: Shortbread Lofts Main Lobby

4.4 Precedent Study: The Compound, Birmingham UK



Figure 7: The Compound - Main Interior Living Area

A different approach to real estate development, The Compound is a renovated

former textile factory located in the Jewellery Quarter of Birmingham, United Kingdom. It is an 85,000 square foot renovation that combines a unique program with a unique building. The developer, Javelin Block, has a specific approach to selecting and carrying out projects. They only work with existing buildings, primarily former industrial buildings in the Jewellery Quarter, and in redeveloping the buildings every effort is made to salvage, restore and reuse original components of the building. As an example, the steel frame and industrial fixtures from the textile factory were kept, restored and left exposed as a highlight of the space.⁵⁹

The program of the building has some residential areas, but focuses on being an event rental space that is marketed towards being rented out for photo shoots, filming and corporate events.⁶⁰ Program elements include a small movie screening theater, a bar, large open kitchen/dining/living area, parking inside the building, and a variety of bedroom/bathroom pods (Figure 10). The circulation throughout the space is unique, capitalizing on the existing catwalks and stairways that were already present in the space (Figure 8 & Figure 9). While not all buildings have this level of character to work with,



Figure 8: Before Renovation - Catwalks

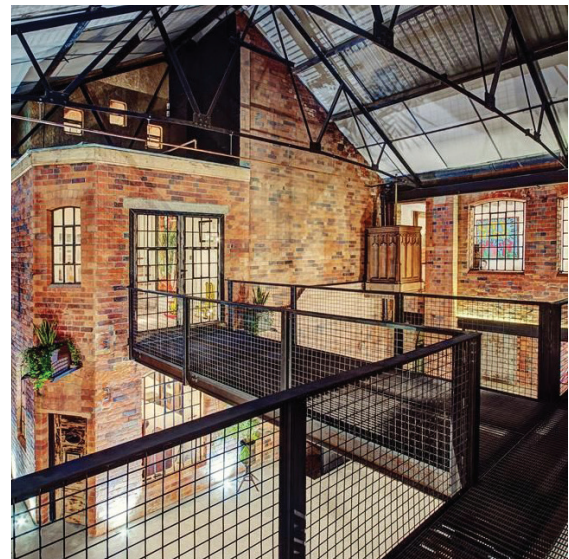


Figure 9: After Renovation - Catwalks

many developers would have seen the interior catwalks and existing pods of space as a

nuisance and would have completely removed everything from the interior to be

59 BPN Architects, “The Compound,” web

60 Javelin Block, “The Compound,” web

TEXTURES

- White walls
- Reclaimed and new wooden walls
- Exposed brickwork
- Concrete, metal and reclaimed wood flooring
- Steel and woodwork structures

SPACES

- Internal garden with dining table, lounge furniture, artificial grass and parking
- Open plan kitchen and living space with island bar
- 25 seater cinema / screening room with DVD players, Sky television, projector and full surround sound system
- Basement speakeasy bar
- Office with feature desk, exposed brickwork, wooden beams, white walls and fireman's pole to ground floor
- Artist's studio
- Master bedroom with bi-folding doors, ensuite and walk in wardrobe
- Large balcony overlooking internal garden
- Six bath/shower rooms with brass overhead showers and industrial fixtures and fittings
- Duplex bedroom with ensuite, spiral staircase, kitchen and living space
- Duplex bedroom with ensuite and spiral staircase
- Treehouse studio bedroom with ensuite and kitchen

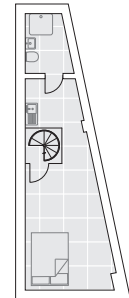
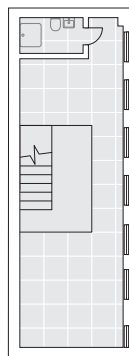
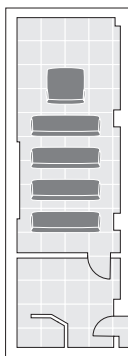
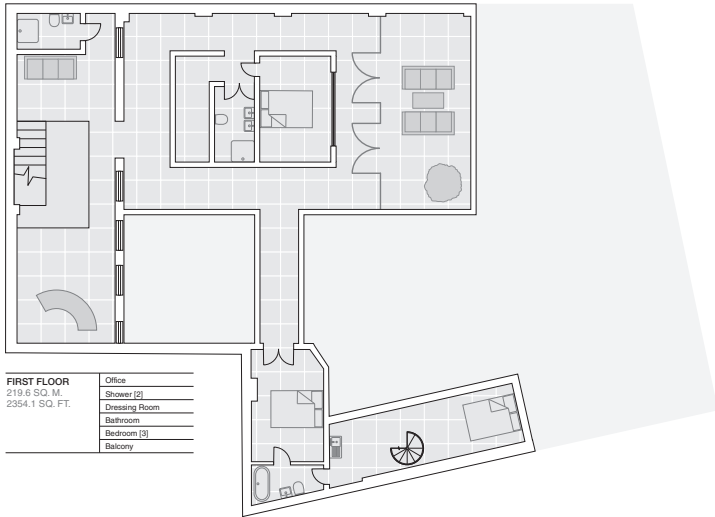
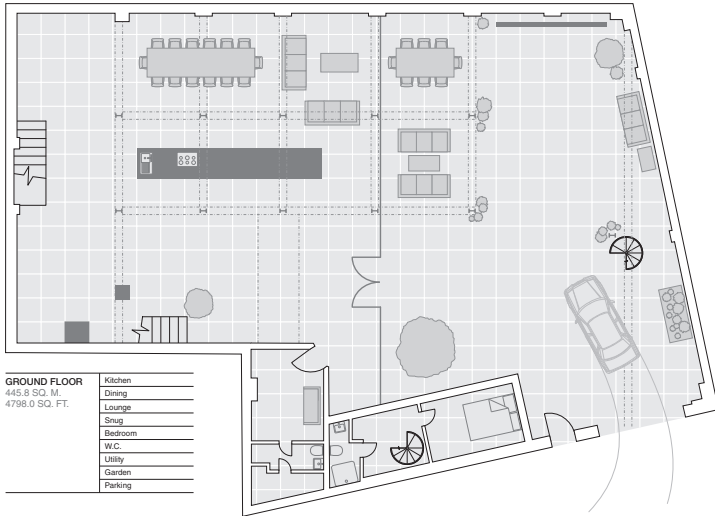
FEATURES

- Industrial design
- Ceiling heights up to 35ft
- Large open spaces
- Multiple levels and rooms including bridges, balconies and mezzanine floors
- Full height crittal glazed curtain wall
- Antique fixtures and fittings
- Spiral staircases
- Working industrial crane
- Fireman's pole
- Fully integrated Wi-Fi and Sonos throughout
- CCTV and security alarm system
- Underfloor heating
- Secure drive-in access for large / multiple vehicles
- Central Birmingham location with immediate access to train stations and all local amenities

Measurements and diagrams are for illustrative purposes only.
If you require precise measurements, please mention prior to booking.

THE COMPOUND

METRES



JAV51 BHX LAT. 52.486105 LON. -1.901818 °N 52. 29:9.978 °W 1. 54:6.544

Figure 10: The Compound - Marketing Brochure with Floor Plans

replaced and fitted out with all new materials, program, and experience. Holding onto the character of the past, but updating it and re-imagining what it could be used for maintains a sense of Place by highlighting memories and allowing for imagination. There are drawbacks to restoring and keeping elements of an old building like this, the primary one being the higher cost to do so. This limits the target market and would not be a good fit for lower income areas where the luxury price points could kick-start a gentrification process. However, many of the projects, including this one, that Javelin Block takes on are geared towards higher end rental markets where there is both a need and want for these types of projects. The uniqueness of the space creates demand for it as a destination location for filming, hosting and renting, and as such carries a higher price tag. Other projects by Javelin Block in the Jewellery Quarter are luxury apartments and condos, with expensive, high end finishes and unique amenities. These higher cost projects are balanced by potentially resulting in a higher income property (higher risk, higher reward).

CHAPTER 5

ELEMENTS OF PLACE: CHARACTERS

The Oxford English Dictionary defines *character* in two ways - “the mental and moral qualities distinctive to an individual” and “a person in a novel, play, or film.”⁶¹ The term originates from the Greek work *kharakter*, which means “a stamping tool,” which led to an understanding of something as a distinctive mark, feature or trait.⁶² The word “character” has transitioned from a physical identifying mark, to that of a mental and moral quality of a person, and a term for someone acting, or part of a fiction. Perhaps this is why many people tend to describe old or unique buildings as having character, or new buildings as lacking in it. But what happens when the architecture becomes simultaneously a player in the story, an actor that can change the outcome, and the distinctive marker? What happens if it is treated as the origin and becomes the stamping tool of society?

5.1 Freedom to Choose

In his TED Talk, *Why Great Architecture Should Tell a Story*, Ole Scheeren defines architecture as a “space of stories.”⁶³ He opens his talk with a critique of the famous “Form Follows Function” moniker put forth by Louis Sullivan that has played a pivotal role in modern architecture. He proposes instead that the version put forth by Bernard Tschumi is more accurate - “Form follows fiction,”⁶⁴ meaning that space is scripted by stories, and in turn the stories are scripted by the space. He posits that architecture is not only about building physical matter and space, but it is also to generate (or regenerate) relationships and narratives. Architecture becomes a system, or an

61 “Character,” web

62 “Character,” web

63 “Why Great Architecture Should Tell a Story,” 00:01

64 “Why Great Architecture Should Tell a Story,” 00:20

organizational structure similar to an organism that can connect both people and spaces. He introduces the term of “Narrative Hybrids”⁶⁵, which Scheeren uses to describe how architecture can be host to a multitude of individual and group stories and experiences all at once.

After introducing his theory and approach to architecture, he describes four different projects that he and his partners have created and built. The first project he describes is China’s national broadcaster headquarters, in Beijing. For this project, they focused on rethinking the skyscraper, since towers tend to encourage isolation and hierarchy, into a loop. And then within the loop, they focused on scripting the narrative of the workers and community that would occupy the building (intended for over 10,000 people to work and visit).⁶⁶ Scheeren and his team developed five sample characters and mapped their day to day experience through the building, creating narrative sequences that not only shaped the design of the building, but also created a tool for communicating the experience of the building.⁶⁷ Since its completion in 2012, it has become an icon of Beijing and taken on a persona of its own.

The second project Scheeren discusses during his talk is The Interlace in Singapore. It is a very large residential complex that again tries to rethink the typical approach of using towers. The design takes the towers and “topples them,” creating a complex stack of horizontal blocks, arranged around a hexagonal grid pattern. The open spaces between the blocks create large open air courtyards that not only provide shade and cool spaces for the residents, but are also extensively designed and programmed to create spaces for social interactions.⁶⁸ The courtyards, tops of the blocks, as well as outdoor patios provide a gradient of public to private spaces where residents can choose where they want to be, and what type of outdoor space they want to enjoy. This freedom of choice and variety of spaces is a key component to the narrative of this project.

65 “Why Great Architecture Should Tell a Story,” 01:50

66 “Why Great Architecture Should Tell a Story,” 04:25

67 “Why Great Architecture Should Tell a Story,” 04:51

68 “Why Great Architecture Should Tell a Story,” 08:18

The last three projects discussed in the TED Talk, The Collaborative Cloud in Germany, The Looped Hybrid in London, and the Floating Cinema in Thailand are covered very briefly, and Scheeren highlights how each project has developed an approach to encouraging community, collaboration, and collective narratives in different ways and at different scales. Scheeren ends his talk by summarizing his approach to narrative in architecture: “So I believe that architecture exceeds the domain of physical matter, of the built environment, but is really about how we want to live our lives, how we script our own stories and those of others.”⁶⁹

Drawing from what Ole Scheeren (building off of Bernard Tschumi) put forth about architecture as a framework for narratives, can the built environment be designed to be shaped as much by human experiences as human experience is currently shaped by it? What if we honor the idea that characters are not limited to the human ones, and that architecture’s character goes deeper than unique physical identifiers?

69 “Why Great Architecture Should Tell a Story,” 15:55

CHAPTER 6

ELEMENTS OF PLACE: SETTING

The next element of a narrative, and one that is inherent in the built world, is that of setting. In terms of a story, setting is “the place and time at which a play, novel, or film is represented as happening.”⁷⁰ More broadly, it is defined as “The place or type of surroundings where something is positioned or where an event takes place,” and also as the variables that can be adjusted to operate a machine.⁷¹ In essence, it is the physical and temporal context of an experience or object. Architecture and the built world are a part of the setting for almost every story that humans have ever experienced or told. It is an integral component to the narrative, and so therefore the physical aspect of the built world is also an integral component to Place. But how do we be mindful of this and as architects design with an intentionality? This component of narrative is perhaps the one being addressed most directly through architecture and the built world, yet if a clear Setting is missing, then no other narrative element of Place can make up for it. In many modern buildings, the globalization of styles, materials, and construction techniques have worked to erase much of what cues people into a specific setting. Local construction techniques and designs are being lost to cheaper, more time-efficient methods of manufacturing and building, resulting in a pervasive sameness in settings across the United States and globe.

6.1 Personification of Architecture

Michael Cadwell, Director of Architecture at Knowlton School and practicing architect,⁷² begins the introduction to his book, *Strange Details*, with a poem by Seamus Heaney, called *Making Strange*. This poem is the foundation for the rest of his musings

70 Oxford English Dictionary, “Setting, n.” web.

71 Oxford English Dictionary, “Setting, n.” web.

72 “Faculty and Staff - Michael B. Cadwell,” web.

and conclusions about four different case studies (Querini Stampalia Foundation by Carlo Scarpa, Jacobs House by Frank Lloyd Wright, Farnsworth House by Ludwig Mies van der Rohe, and the Yale Center for British Art by Louis Kahn). Cadwell uses it as the tipping point of his understanding and consequently his argument on how the details of each project make it more than just a built structure. The book's summary by William Richards, in his review of *Making Strange*, captures Cadwell's underlying message very succinctly, "The author encourages us to think about these buildings not as objects, but as a series of assembled systems and parts... *Strange Details* is not a history... It is a useful, deeply felt discussion about the art and practice of building."⁷³ By grounding the reader with the poem first, Cadwell is setting up how the reader is approaching the details. Instead of presenting a physical description of the buildings and their strange details, Cadwell uses the poem to shift the viewers mindset towards the ephemeral and experiential. The paragraphs that directly follow the poem outline an interpretation of the poem, drawing connections between architecture and narrative, building this idea that architecture is a narrative.

Published in 2007, *Strange Details* is among many books that analyze modernism. Unlike many of those books, it does not seek to argue for or against, but merely to muse on different aspects of the four case studies. As Cadwell states in his introduction, "My intention for these essays is neither ideological nor, in the strictest sense of the term, critical, but one of appreciation: to revisit the strangeness of these buildings, to exhume their tactics of construction, and to evoke their all-embracing affects."⁷⁴ Michael Cadwell's bachelor degree was in English and prior to his current teaching position at Ohio State University, he taught at Parsons School of Design and the Rhode Island School of Design. This diverse background in the liberal and fine arts reinforces Cadwell's approach to understanding the built world.

The first chapter of the book focuses on Cadwell's experiences and understanding

73 Richards, "Strange Details (Writing Architecture Series)," 59.

74 Cadwell, "Strange Details," xx.

the Querini Stampalia in Venice, Italy by Carlo Scarpa. He introduces the building, again not by describing it, but with narratives and personal anecdotes. He describes how he was wandering the streets of Venice as he came across the building and was drawn in by the unique detailing and inherent “Strangeness.” Then he backs the viewer up in time to when he was first introduced to Scarpa during his time in architecture school:

I did not discover his work on my own, but had it pressed upon me by teachers... I was a beginner and I searched, with varying degrees of desperation, for what I imagined to be a more fundamental approach to architecture. Scarpa's work, whatever else is said about it, is not easy, its broader implications are indecipherable if only one has access to only a scattering of photographs and plans.⁷⁵

He continues to build the narrative of how he came to understand and admire Scarpa's work and the Querini Stampalia in particular, but he does not begin to physically describe or even include pictures of the building. He is building a narrative instead of experiences and observations.

During the narrative, Cadwell also begins to weave in his understanding of the architect's story, and by extension, the story of the building. For Scarpa, Cadwell states that it is all about the “liquidity of materials,” aquatic, and “fundamentally strange.”⁷⁶ He uses the writings of Martin Heidegger and Kenneth Frampton to create a framework for the viewer that sets the earth as a constant and that buildings can only grow from the earth: “Nevertheless, I point out a very simple thing: Heidegger is depicting the earth as a stable condition, a ground from which work inevitably extends. Work, it also seems inevitable, that will rise to the sky.”⁷⁷ Since Carlo Scarpa is a native of Venice, where the ground is fluid and subject to change, Cadwell muses on how this influence of growing up in the flooded city has a direct impact on how Scarpa crafts his buildings; infusing a liquidity to the details and distorting the ground relationship to create an inherent strangeness, “Scarpa was born on water, matured on water, and built on water. Not Land.

75 Cadwell, “Strange Details,” 4.

76 Cadwell, 5.

77 Cadwell, 6.

Unlike his terrestrial contemporaries, Scarpa's was an aquatic sensibility, saturated by Venice."⁷⁸

Only after setting the narrative stage and grounding the viewer does Cadwell finally start to physically describe the Querini Stampalia. Yet even as he begins to describe the space, he teases the reader into it, using diagrams and circulation patterns to describe the space even as he gives room dimensions: "the scale of the intervention is modest: the enclosed area measures only 40 feet by 65 feet while the garden measures only 40 feet by 80 feet. In spite of the small scale of the intervention, Scarpa took great pains to differentiate three circulation paths."⁷⁹ And then finally Cadwell provides the first drawings of the building, a floor plan and four plan diagrams of the spatial arrangements. All of this building description is woven in with the architect's history and methods. The building cannot be separated from the craftsman, just as the architect cannot be separated from his history. They are all tied together to create a narrative that is shown through the construction, details, and material of the building.

Finally, the author walks the reader through the space, beginning with the pedestrian bridge into the building, analyzing the construction and details of a handrail as if it was carefully crafted to take the viewer on a journey and draw them into the building:

We trace its trajectory from teak to steel strut, to steel support, to a second strut, to that strut's doubling. Each transition articulates a fundamental of structure: the negotiation of load to support, the translation of horizontal to vertical. Yet the final critical connection of strut to bridge, there is nothing; the double struts simply fold and disappear into the span's plating, where steel abandons all skeletal pretense in a series of ductile laminations.⁸⁰

From the bridge handrail, Cadwell takes us on an equally poetic and articulate journey through the foyer, porch, gallery and finally the garden. In each room he breaks down the details of the construction language of Scarpa into a poetic experience of the space,

78 Cadwell, "Strange Details," 11-12.

79 Cadwell, 13.

80 Cadwell, 17-18.

highlighting how different details orient or disorient the viewer to “that beautiful, thin, feeble line”⁸¹ between sky, earth and water: “There is quiet now; we are not slamming through a window or dropping off a pier. Gone is the frenzied detailing and the theatricality of quick jabs and nightmarish tricks. It is quiet.”⁸² This poetic mapping of space and the experience of it is closely tied to phenomenology, yet Cadwell is anchoring these sensations in physical details, solidifying and attempting to articulate an experience of a space through the details, materials, and construction.

Architecture cannot be separated from its physicality, it is first and foremost a built object. There is no Place without the physical matter that creates space, just as there is no experience without someone present. Architecture is part of the setting, but also reliant on it. Without the history and landscape of a place, architecture becomes just an object, a physical marker in the world. The more specific the Setting is, and the more it influences the architecture, the deeper the foundation for Place.

81 Cadwell, “Strange Details,” 9.

82 Cadwell, 27.

CHAPTER 7

ELEMENTS OF PLACE: PLOT - HOW LONG IS THE STORY?

In narrative and literary works, Plot is the “plan or scheme; considered or presented as an interrelated sequence; a storyline.”⁸³ It is the action sequence, the conflict, or events, that correspond to the time passing for the characters in the story. In the built world, it is the experience. A typical basic storyline will follow a series of events: the exposition, conflict, rising action, climax, falling action and resolution (Figure 11); this comprises the beginning, middle, and end of story, creating a story arc.

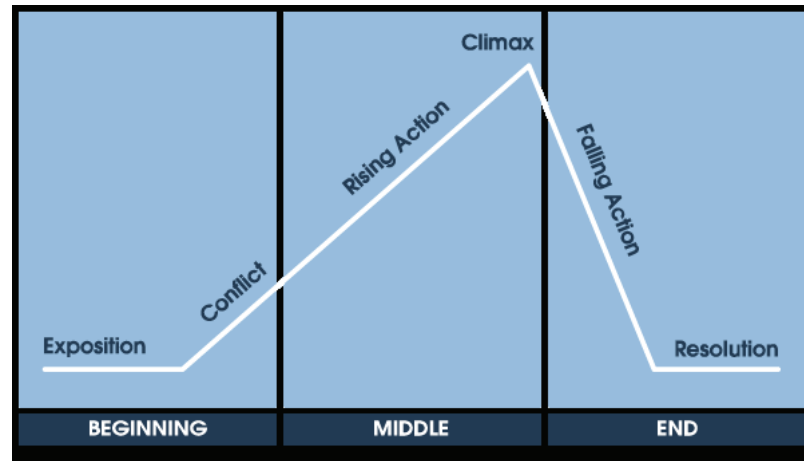


Figure 11: Plot Diagram

But stories are not always so simple, they can undulate in action, have differently weighted sections, have varying rates of action, and have several rises and falls that build to a conclusion. But in all of these story arcs, there is the element of time, most often centered around a small portion of a person’s life. Since architecture provides the framework for experience, and narrative, then how long is the architectural story? How long should it be? In today’s world, many new buildings are designed to last fifty years or less, but there are buildings still standing and being used that are thousands of years old (The Colosseum in Rome is approaching two thousand years old⁸⁴). Just as a variety

83 Oxford English Dictionary, “Plot, n.” web.

84 “The Colosseum,” web.

of characters creates a richer architectural experience, a variety of story types creates a richer whole. While some buildings perhaps should have a short lifespan, because the stories in them are relatively short, there needs to be a variety of story lengths, each with their own variation of plot and action, that span multiple generations.

7.1 Shearing Layers, Roads of Architecture and Scenario Buffering

Returning to *How Buildings Learn. What Happens After they're Built?*, by Stewart Brand we dive into Chapters Two, Three, Four, and Eleven. Chapter Two, titled “Shearing Layers”, focuses on explaining Frank Duffy’s theory of rates of change, and expanding upon it. Chapters Three and Four review the two different ways Brand theorizes of how buildings adapt, and Chapter Eleven looks to the business world for cues on potential solutions with the theory of scenario buffering.

Brand’s theory of shearing layers builds off of Frank Duffy’s theory of the ‘four S’s’ as rates of change in architecture. Brand expands it to ‘six S’s’ to better capture exterior work. The original four S’s per Duffy are Stuff, Space Plan, Services, and Skin, moving from the innermost layer to the outermost. Brand adds Structure and Site to the list as well and packages it into a diagram (Figure 12), to move beyond Duffy’s focus of corporate interiors. Stuff is the innermost layer consisting of elements such as furniture, and it is the one that changes most rapidly and easily. Space Plan changes slightly less rapidly and with less ease than stuff and consists of elements such as walls, ceilings, floors, and doors. The next layer out is that of services. It consists of elements such as HVAC, electrical wiring, data systems, plumbing and moving parts such as elevators. Moving further out is the exterior Skin of the building, and it consists of what it’s name implies, the exterior shell or enclosure of the building. The second to last layer is that of Structure and consists of the building structural elements such as the foundation and load bearing columns and beams. The slowest changing element of the system is that of Site.

It is the physical location that a building exists in, and changes very slowly. For each layer, Brand identifies typical lengths of time between changes, for example Space Plans get modified every three to thirty years (depending on program and user turn over rates), services are changed every seven to fifteen years as technology advances or parts wear out, and structure is rarely changed and lasts thirty to three hundred or more years.⁸⁵

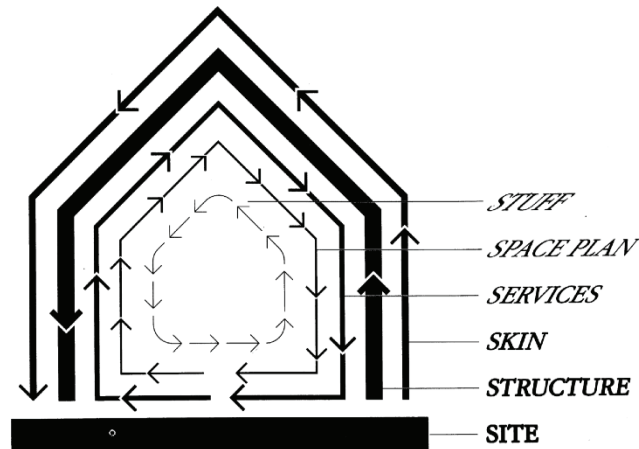


Figure 12: Shearing Layers Diagram

These rates of change are influenced by two main factors, people and money. As tastes or needs change, the space is changed to match, and the cheaper the element is to change, the more likely it is to be changed often. In a building, furniture is much more visible and prone to fashion trends, as well as being much cheaper to change out than the structure of a building, which is often hidden and less subject to changing aesthetic trends. Each layer has a different rate of change within the lifetime of a building and these should be respected to create a more adaptable and holistic system:

An adaptive building has to allow slippage between the differently-paced systems of Site, Structure, Skin, Services, Space Plan and Stuff. Otherwise the slow systems block the flow of the quick ones, and the quick ones tear up the slow ones with their constant change. Embedding the systems together at first may look efficient at first, but over time it is the opposite, and destructive as well.⁸⁶

As an example of this, Brand points to slab on grade style construction, where the

85 Brand, "How Buildings Learn," 13.

86 Brand, 20.

utilities are typically buried under the slab. This is easy enough to construct and is done frequently, yet future maintenance on any pipes under the slab becomes much more difficult and expensive. After outlining the shearing layers theory, Brand ties it back into how it can influence adaptability of buildings. The more the layers can operate at their own pace, the more adaptable the building. If the layers are all integrated together then any changes to a building become drastic, erasing what was there before unnecessarily. However, if the layers are respected and can be changed independent of each other, what results is a system that goes through smaller, incremental changes over time that develop positive feedback loops. This, Brand argues, is what allows buildings to become a Place, “The point is to make adjustments to a building in a way that is always future-responsible - open to the emerging whole, hastening a richly mature intricacy...Loved buildings are the ones that work well, that suite the people in them, and that show their age and history.”⁸⁷

In Chapter Three “Nobody Cares What You Do In There, The Low Road” and Chapter Four “House proud, The High Road” Brand discusses the two paths of adaptation in space. The Low Road, as Brand terms it, is the freedom to make changes that is often inherent in “low-visibility, low-rent, no-style, high-turnover” buildings. These low stakes buildings offer a freedom of experimentation and flexibility that often leads to longer building lifespans before needing to be fully replaced. Former industrial buildings offer a perfect low-road example. The sturdy structures combined with wide open spaces and limited visibility into them offer almost an unlimited amount of freedom to customize and adapt the space to any use. The bays of space created by the structure often encourage modular development, creating natural rhythms to the space by which to divide it. Tenants of these buildings can then simply add or subtract bays as needed to allow for a simple expansion or contraction based on need. Tenants in office buildings do not often have this freedom and typically must uproot and move to smaller or larger spaces as need arises. Here Brand turns to Jane Jacobs to elaborate on how this freedom of space, often

87 Brand, “How Buildings Learn,” 209.

in older buildings, can impact entire neighborhoods.

Jane Jacobs explains why: Only operations that are well-established, high-turnover, standardized or highly subsidized can afford, commonly, to carry the costs of new construction. Chain stores, chain restaurants and banks go into new construction. But neighborhood bars, foreign restaurants, and pawn shops go into older buildings. Supermarkets and shoe stores often go into new buildings; good bookstores and antique stores seldom do. Well-subsidized opera and art museums often go into new buildings. But the unformalized feeders of the arts - studios, galleries, stores for the musical instruments and art supplies, back rooms where the low earning power of a seat and table can absorb uneconomic discussions – these go into old buildings...⁸⁸

With this lower economic risk and freedom of adaptability, Low Road buildings can often empower users and neighborhoods by encouraging exploration, creativity, and imagination. This freedom can also lead to an honesty and authenticity of the building and the users. (Authenticity as a philosophical definition: “a mode of existence arising from self-awareness, critical reflection on one’s goals and values, and responsibility for one’s own actions; the condition of being true to oneself”).⁸⁹

Chapter Four presents the equal but opposite approach to adaptation, the High Road. Unlike in Low Road spaces, there is a high cost to the buildings. With this cost, there is most often also a high style and certain level of prestige and visibility. Examples of High Road buildings are the homes of former presidents George Washington, James Madison, and Thomas Jefferson. Monumental institutional buildings often fall into this category as well, such as the Library of Congress. Brand defines the basics of what makes a building High Road, “...what makes a High Road building acquire its character - high tent, duration of purpose, duration of care, time and a steady supply of confident dictators.”⁹⁰ Brand speaks at length about the souls of these types of buildings, and that the constant slow change and stream of money for those changes, leads to buildings that

88 Jacobs, “The Great Life and Death,” 245, quoted by Brand, “How Buildings Learn,” 28.

89 “Authenticity,” web.

90 Brand, “How Buildings Learn,” 35.

begin to merge many styles, becoming a history rather than a fashion suspended in time. The inherent higher dollar investments mean that complete overhauls are less likely, and so gradual tweaks and updates become the norm. The largest risk for these homes is that of becoming too large or lavish to be maintained in downturns. As Brand summarizes, “Poets and duchesses know that doing a High Road building right is a labor of love measured in lifetimes.”⁹¹

In Chapter Eleven, Brand references a business strategy that can be adopted for buildings – Scenario buffering. He pulls extensively from two authors on the subject, William Sena and Peter Schwartz. Scenario planning is looking at as many as possible different outcomes in the future, five to twenty years out, and then develop a strategy, not a plan, that can accommodate as many of those scenarios as possible. This method is in direct challenge to typical programming procedure that is still practiced today:

*The great virtue of programming is that it deeply involves the users of a building and makes it really their building. The great vice of programming is that it over-responds to the immediate needs of the immediate users, leaving future users out of the picture, making the building all too optimal to the present and maladaptive for the future.*⁹²

While Brand is not arguing to do away with programming, he is stating that it does not do enough. His diagram on the scenario process summarizes this and shows how it can create adaptability (Figure 13). Brand goes on to propose that architects are well educated to take on the role of leading scenario planning due to graphic skills, creative imagination, eloquent storytelling, and that they are able capable of grasping and shaping large complex schemes and ideas.

After proposing a detailed outline of scenario buffering, Brand goes on to discuss other “rules of thumb” that can be applied to architecture such as, overbuilding structure and services, spatial diversity, delaying final design decisions until the user has begun to use the building/space, and to work in stages (evolutionary design). Brand also

91 Brand, “How Buildings Learn,” 51.

92 Brand, 181.

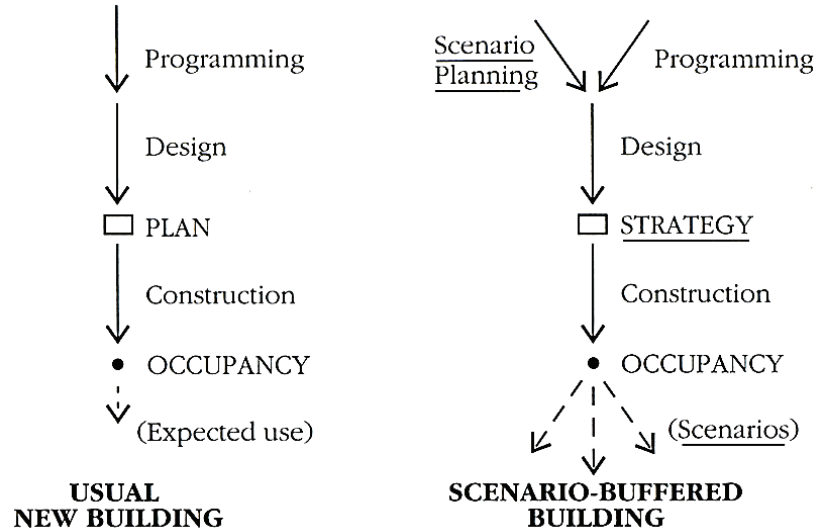


Figure 13: Scenario Buffering Diagram

discusses the ideology behind synchronic and diachronic ideas. Synchronic being how it all fits together at a single point in time and diachronic being the way it develops over time. These two dichotomies are most prevalent in the study of language, but Brand argues that these distinct approaches can be applied to architectural studies. He concludes with the question of how buildings can shift from what they are to what they do, and how through use of rephotography and sleuthing through changes over time, a person can learn and understand the building's past and then map out future possibilities.

Brand's expansion of Frank Duffy's four S's theory to include exterior elements such as Structure and Site and his careful examination and explanation of the rates of changes amongst those six layers provides a pivotal base from which he expands his argument for adaptability. The need to be able to update and change different systems at different times, not only saves money, but helps extend the life of built structures. The acknowledgment and discussion about how buildings change, and the two most common methodologies for this, the High-Road and the Low-Road, provide an insight into how future buildings may build off of these existing tendencies to allow for future adaptation.

There is a somewhat over simplification in setting up a binary approach to adaptability. Most homes would probably fall somewhere in the middle, not unimportant

or cheap enough to fall into the Low-Road category, but not high style, or high cost enough to fit the High-Road approach. Yet these buildings still change and adapt, usually fairly easily. Given that Brand wrote this book in 1994, it does not fully address how new, complex sustainability strategies and systems would change (if at all) his approach to the shearing layers. In Brand's proposed solution of scenario buffering focuses on the programming aspect of a building, but what if a building is designed more generically? For example, many commercial developers build spec buildings, or white box spaces that are simply designed for a certain number of square feet, with little or no intentionality behind the programming. One would think, that being designed without a specific program, they are well suited to being able to adapt to a wide range of tenants, and thus uses, but that is not always the case. Brand ends scenario buffering with a case for understanding history and once that is understood, using it to map out future possibilities, which directly relates to the concepts of Bachelard, and the need for both Memory and Imagination in buildings.

7.2 Pace Layering

In their recorded talk, Stewart Brand and Paul Saffo discuss their book *The Clock of the Long Now*. Their discussion centers on the concept of Pace Layers Thinking, which is an expanded version of Brand's Shearing Layers concept. The Pace Layers theory applies the understanding of different rates of changes at different levels to the concept of society. Illustrated below in *Figure 14*, the layers on the concept are Fashion, Commerce, Infrastructure, Governance, Culture, and Nature; moving from the quickest rate of change to the slowest respectively. These layers, Brand and Saffo argue, are what comprise and guide the health of a society, "The order of civilization. The fast layers innovate; the slow layers stabilize. The whole combines learning with continuity."⁹³

It seems that in today's world, we are being drawn towards the outer layers, and the faster rates of change and this is being reflected in architectural practice. While all

93 Brand, Saffo, "Pace Layers Thinking," web.

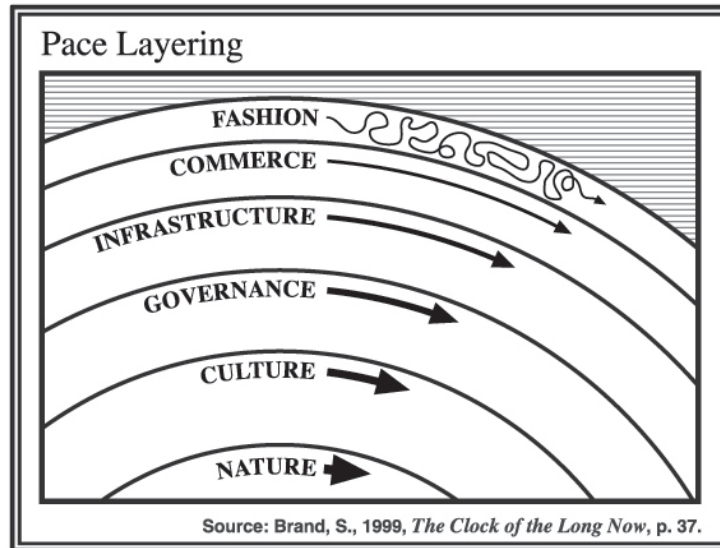


Figure 14: Pace Layering Diagram

of the layers are necessary, it is the balancing between the different rates of change that brings balance to the system. If architecture is primarily responding to and moving at the faster rates of change, it is becoming unbalanced. So how does architecture begin to reintegrate the slower rates of change?

By thinking critically about rates of change within systems, the element of Plot can provide guidance on how to develop Place. Within a community and its built environment, there should be a variety of rates of change. These rates of changes provide different types of frameworks for different paces of narratives to occur in, and in developing diversity, the depth and richness of a community could be enhanced. At a building level, providing a separation between systems allows for easier adaptation of the building, extending its useful life, and providing increased flexibility for the user to change the architecture based on their experience, and multiple possible future experiences. Just as the architecture shapes the stories, the Characters must be able to shape the architecture based on their own Plots.

CHAPTER 8

NARRATIVE: SUM OF THE PARTS IS GREATER THAN THE WHOLE

The final element of a narrative of Place is Complexity. Unlike the New Urbanists, this thesis does not intend to put forth a prescriptive set of finite commandments on how to create Place. Place is the summation of characters, setting, and plot. But in putting them together, they become more than those simple elements because narrative is complex (Figure 15). The Oxford English dictionary defines

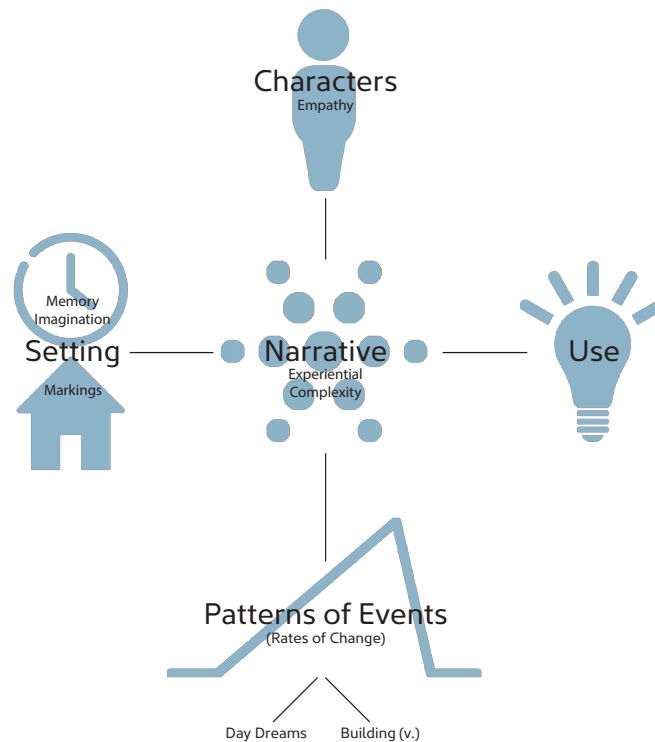


Figure 15: Elements of Place

complex as, “Consisting of parts or elements not simply co-ordinated, but some of them involved in various degrees of subordination, complicated, involved, intricate; not easily analyzed or disentangled.”⁹⁴ While narratives can be broken apart into simple elements such as characters, setting and plot, those three elements fail individually to summarize what a narrative is. They are components of a larger system that is complex.

94 Oxford, English Dictionary, “Complex, adj.” web.

Architecture and the built world should operate the same way. One can build a building out of all the different elements and components of narrative, but it does not become a Place until all the elements are in harmony and telling a story.

8.1 Approaching the Whole

Donnella Meadows, author of *Thinking in Systems and Limits to Growth*, can be succinctly characterized as, “A woman whose pioneering work in the 1970s still makes front-page news, Donella Meadows was a scientist, author, teacher, and farmer widely considered ahead of her time. She was one of the foremost systems analysts, winner of a MacArthur Foundation “genius” award, and Pulitzer Prize-nominee for her long running newspaper column.”⁹⁵ Her higher education began with a B.A. in chemistry and culminated in a Ph. D in Biophysics from Harvard, which lay the foundation for her interests in systems science and environmental sciences. *Thinking in Systems*, published in 2008 after her sudden death in 2001, is a primer to systems sciences and shows how the theories can be applied across a broad range of topics including but not limited to economics, business organization, ecology, and population. While at this point in time the notion of systems theory is not new, Meadows book seeks to present the theory as a way of thinking that anyone can understand and practice.

Meadows begins the introduction of her book with a quote by Robert Pirsig from *Zen and the Art of Motorcycle Maintenance*:

*If a factory is torn down but the rationality which produced it is left standing, then that rationality will simply produce another factory. If a revolutionary destroys a government, but the systematic patterns of thought that produced that government are left intact, then those patterns will repeat themselves...There's so much talk about the system. And so little understanding.*⁹⁶

This quote sets the stage for the introduction, highlighting one of the main points that

95 Meadows, “Thinking in Systems,” Rear cover.

96 Meadows, xx.

Meadows makes throughout the book – that systems are everywhere if only you adapt your thinking to look for them. The introduction formally opens with an anecdotal story about using a slinky to help students understand systems, “What made the Slinky bounce up and down? The answer clearly lies within the Slinky itself. The hands that manipulate it suppress or release some behavior that is latent within the structure of the spring. That is a central insight of systems theory.”⁹⁷ The image of the Slinky is something Meadows comes back to at certain points in the book.

Meadows continues to build a logical argument in her introduction, defining what a system is, giving examples, and framing the holistic big picture. One thing that makes Meadows book different from other systems theory books, is that it seeks to define and explain systems in non-technical language, and without referencing a specific application area such as computer modeling. She next explains her reasoning for using a graphic, pictorial language to represent the systems she is describing in addition to the text explanations, “Words and sentences must, by necessity, come only one at a time in linear, logical order. Systems happen all at once.”⁹⁸ Having introduced the reader to the primary purpose and argument of the book (that systems thinking can help solve any number of problems and can be adapted by anyone) and explained her methods of explanation, she ends the introduction with an outline of the books topics.

The book is laid out so that it begins as simply as possible, defining the elements and necessary knowledge of systems theory as isolated elements in the first chapter and then adding complexity with each subsequent chapter. Chapter Two takes the reader through a series of more complicated system examples, the “systems zoo.” Each example in this chapter becomes increasingly complex and interrelated. The next three chapters of the book focuses on how systems operate and how to adapt perceptions about those system operations. The final portion of the book, chapters six and seven outline common problems and how to “intervene” in systems by identifying and using leverage points.

97 Meadows, “Thinking in Systems,” 1.

98 Meadows, 5.

Meadows also includes a lengthy appendix that provides more detailed information such as model equations and a bibliography for readers who want to continue learning about systems theory.

Chapter One, titled “The Basics” is an introduction to definitions, both text and graphic in nature, about systems, system elements, and system behavior. Meadows starts the chapter by giving the reader a set of keywords and a definition, “A system isn’t just any old collection of things. A *system* is an interconnected set of elements that is coherently organized in a way that achieves something. If you look at that definition closely for a minute, you can see that a system must consist of three kinds of things: *elements*, *interconnections* and a *function* or *purpose*.”⁹⁹ Throughout the book, but especially important in the first two chapters, are the boxes of key concepts that Meadows is extracting and highlighting. She is creating a visual cue that this is a key concept, and in doing so, allows the reader a quick access to these concepts if they were to skim back through the book. Meadows continues to explain the initial definition of systems and the three kinds of things they are made of using examples of easy to grasp systems such as a football game or a digestive track. From these base elements, Donella Meadows adds in the understanding of time, or rather how a system behaves over time. The elements Meadows defines next are stocks, flows, dynamics, dynamic equilibrium, feedback loop, balancing feedback loop, and reinforcing feedback loop. For each element of a system that Meadows is defining via text and examples, she is also building a language of graphic representations that come together to pictorially show how the elements in an example system are interacting. Her simple example of a bathtub filling with water not only uses these graphic icons (Figure 16), but also traditional time graphs (Figure 17) that show the changes in stock level. The chapter finishes by summarizing the role of feedback loops (the behaviors of a system), “The concept of feedback opens up the idea that a system can cause its own behavior... The many feedback loops in a system tug against each other, trying to make stocks grow, die off, or come into balance with each other. As a result,

99 Meadows, “Thinking in Systems,” 11.

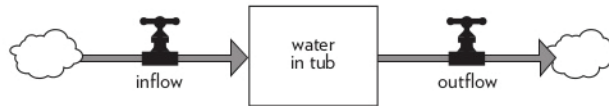


Figure 17: One Inflow Stock and One Outflow Stock

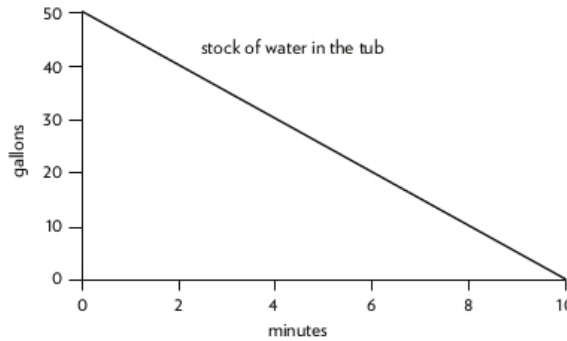


Figure 16: Graph of Stock Level Changing Over Time

complex systems do much more than stay steady or explode exponentially or approach goals smoothly – as we shall see.”¹⁰⁰

Donnella Meadows is seeking to explain the theory of system science in the simplest way possible that “systems thinking” can be accessible to everyone. Systems thinking is seeing the network of influences and behaviors that govern how things react in relation to a function or purpose and it can be applied in almost any field of study. Meadows creates a visual language for different stocks, flows and feedback loops to help the reader understand the complexity of all the influences on a whole system and often pairs this with a graph that shows changes over time. While the theory of systems can become infinitely complex, Meadows makes every effort in *Thinking in Systems: A Primer* to only show what is needed to understand concepts in conjunction with the larger picture.

While it is useful to break apart a system, or narrative, into component parts in order to better understand it, being able to then bring the elements back together and analyze the whole is critical. When looking only at the component pieces, it becomes easy to lose sight of the whole complex system, and to miss the connective tissue that

100 Meadows, “Thinking in Systems,” 34.

bring everything together into something that is more than just its parts.

8.2 Steelstacks Arts and Culture Center, Bethlehem PA



Figure 18: SteelStacks Arts + Cultural Campus Aerial View

The SteelStacks Arts and Cultural Campus, located in Bethlehem Pennsylvania, is a 9.5 acre site sandwiched between train tracks, arterial roads, and a river. The site is a former steel mill that was redeveloped into a multi-use site that focuses on performing arts and broadcast media. With a long industrial history not only of the town but whole region, saving the iconic steelstacks became a priority for the town after the factory closed in 1997.¹⁰¹ Working with Bethlehem Steel, the company that owned the factory, the town hired HOK Architects and Studio E to design a new master plan for the site to aid with setting up tax increment financing and rezoning efforts. The Bethlehem Steel company helped finance studies, as well as paying about \$40 million to remediate the now brown field site into a raw canvas to be developed later as funding became available. The site sat abandoned from 2001 to 2003 after Bethlehem Steel closed its doors due to bankruptcy until being sold as part of a larger parcel to an investment and development group, BethWorks Now LLC.¹⁰² In 2005, another master plan was done for the site, by KostowGreenwood Architects. In 2007, the group sold most of the larger parcel

101 Schwanke, "SteelStacks Arts and Cultural Campus Case Study," 1-2..

102 Schwanke, "SteelStacks Arts and Cultural Campus Case Study," 1-2.

of land to the Sands Corporation (Sands Casinos) to be developed into a casino. The development of the casino fell within the tax increment financing district already established, and would develop a lot of funds to be used to develop the rest of the site. In return for the town's support of the casino project, Sands agreed to own, maintain and preserve the Steelstacks and other historic buildings on the site. In 2009, WRT Design was brought on to do another master plan, and all subsequent plans. The redevelopment authority of the town brought on two non-profits, ArtsQuest and PBS39, that were interested in building new facilities on the site¹⁰³. Phase one of the project was completed in July of 2011, and the rest of the project was completed in 2016. The total cost of the development (not including the casino) is estimated at \$94 million dollars¹⁰⁴.

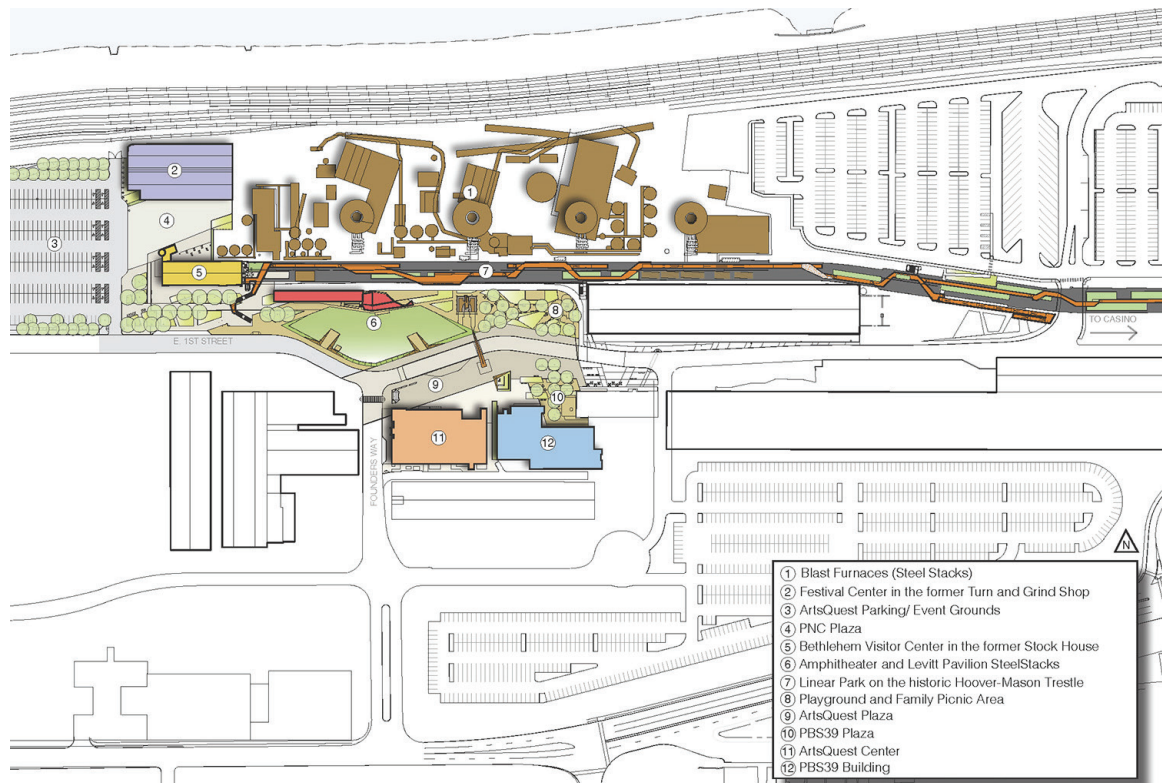


Figure 19: SteelStacks Site Plan with Building Labels

The campus hosts several hundred concerts per year, including the annual nine day Musikfest that the city was already home to, and can host upwards of 30,000 people per event if needed. The then mayor of the town, John Callahan, has been quoted as,

103 Schwanke, 4.
 104 Schwanke, 11.

“The economic impact has been enormous, but SteelStacks has also become [a source of community pride] - the place where residents take visitors to show off the cultural assets of the city.”¹⁰⁵ The iconography of the steelstacks create an unforgettable anchor to the industrial history of the town and region, but have been transformed into a new anchor for culture as well. This case study also shows an alternate way of approaching funding for developers that take on existing structures with strong historical ties. Unlike The Compound by Javelin Block, which uses the potentially larger end revenue to justify the larger expense, the town and developers worked to creatively source the funds upfront, seeing the potential and value in saving and transforming the local icon.

8.3 Precedent Study: Village of Cheshire, Black Mountain, NC



Figure 20: Cheshire Village Master Plan

The Village of Cheshire, located about a mile south of Black Mountain, North Carolina, was a 58 acre mixed use resort style development.. The developer, Sikes Ragan, hired DPZ to develop a master plan for the project in 1998¹⁰⁶. DPZ is the firm

105 Schwanke, “SteelStacks Arts and Cultural Campus Case Study,” 10.

106 “Cheshire, Black Mountain, North Carolina,” web.

of Andres Duany and Elizabeth Plater-Zyberk, both founders of the New Urbanist movement previously discussed. The master plan consisted of several zones, with the Village Center located along the main highway that runs through the center of the site. Residential homes and offices layer around this center, along with several parks, and the resort amenities such as fitness center, daycare and tennis facility (Fig. x). Typical of a New Urbanist style development, the site does aim to nurture a sense of walk-ability and community through the central location of the Village center, the extensive sidewalks and paths through the site, and the programming of the commercial and public spaces. The DPZ website boasts a “five-minute walk from edge to center.”¹⁰⁷

The buildings, while not all designed by the same architecture firm, all follow a very similar aesthetic that is based on the typical mountain lodge ideal that is present throughout the region (Figure 21& Figure 22). While this is intended to help the site blend into the larger context of the region, and create a familiarity for the development, it creates a monotony to the experience of the site.



Figure 21: Cheshire Village Single Family Residential



Figure 22: Cheshire Village Commercial Center

While none of the architectural designs would be considered unappealing or identical (like some developments chose to do), they have such strong similarities in materials, architectural proportions, and ornamentation that even though there are different zones and neighborhoods within the site, it becomes lost in the actual experience. The lack of

107 “Cheshire, Black Mountain, North Carolina,” web.

variety, and the mimicry of historical building construction techniques (Tudor Style), create a subtle sense of inauthenticity that pervades the whole development. While this site had no existing architecture to draw upon to develop or maintain the sense of memory, the simplistic application of historical styles of the region, and encouraging walking are not enough to develop Place.

CHAPTER 9

THE STORY OF COLLINSVILLE



Figure 23: View of Collins Company buildings from Route 10 Bridge

9.1 Setting the Scene

Located in about fifteen miles north west of Hartford, Collinsville is a village district of the town of Canton. Canton is a town with a long agricultural heritage that continues today, due primarily to the Farmington River running through the town. It is still fairly rural, but the southern areas of the county have seen an increase in housing subdivision developments, as well as shopping centers.

The story of Collinsville really begins with the story of the Collins Company. Founded in 1826 with the purchase of the Humphrey gristmill along the picturesque Farmington River in Canton, Connecticut by two brothers and their cousin, Sam Collins, David Collins and William Wells (respectively), the company quickly flourished into the

world's leading manufacturer of axes, machetes, and edge tools.¹⁰⁸ By 1833, the company had 20 factory buildings spread along the river's edge. As the company grew, the owners began to build the town around it, including housing for the workers, a church, retail stores, a hotel, and a post office.¹⁰⁹ The factory also built a series of dams both above and below the factory site to divert water for hydro power. The still-existing dam, that diverts water into the northernmost holding pond that feeds the canals throughout the site, was built in 1867, replacing the previous log dam.¹¹⁰ As new buildings were added, a series of canals were dug through the property to direct water to turbines to power the factory equipment. Those canals remain today, although the site is no longer hydro powered. By 1908, the factory had approximately 40 buildings, and had brought the railroad through the town and factory site.¹¹¹ By the time the company closed in 1966, their tools had been used in the Civil War, the California Gold Rush, a trek to the North Pole, and both World Wars.¹¹² The decline of the company was spurred by the invention of the chain saw, which greatly reduced the demand for edge tools. This combined with a devastating flood in 1955 which destroyed over thirty percent of the factory buildings (Figure 24) created a hardship from which The Collins Company couldn't recover.¹¹³

The 19.3 acre property was sold to Thomas Perry and his wife in 1967, who used it for his own business as well as an incubator space for local businesses. After his death in 1987, his wife continued to lease out spaces in the buildings until she sold it to the current owner, a real estate investor, in 2002.¹¹⁴ The owner worked with the town planning board to rezone the site to allow for easier redevelopment, and a wider variety of uses. This rezoning occurred just before the economic crash of 2008, and so the property, while still occupied by a variety of tenants, has stagnated. Currently comprised of 25 buildings and over 150,000 square feet of space, the large complex is

108 "A Brief History of The Collins Company and Collinsville," 1.

109 Taylor, "The Collins Company Buildings"

110 Taylor

111 Taylor

112 "A Brief History of The Collins Company and Collinsville," 2.

113 "A Brief History of The Collins Company and Collinsville," 2.

114 "A Brief History of The Collins Company and Collinsville," 3.



Figure 24: History and Context Site Analysis

prime for redevelopment and is currently listed for sale at three million dollars.¹¹⁵

The canals of the site still move water, but they no longer provide hydro power. However, the long narrow pond along Depot Street does still function as part of the fire suppression system. The elevated rail line that runs through the middle of the site has been converted into a rails-to-trails bike path, as part of the Farmington River Path. Foundations of the many former buildings that have been destroyed or torn down still remain, but are largely overgrown by grass and weeds. The site is largely closed to the public, with the only publicly accessible areas the bike path, and the northernmost parking lot at the corner of Bridge Street and Main Street, where the antiques store and restaurant are located.

¹¹⁵ “Connecticut Collinsville Axe Factory,” web.



Figure 25: View of Building 8 from under the Rails to Trails Bike Path

The town is intensely proud of its industrial heritage roots, going so far as to incorporate part of the Collins Company logo into the current town seal. One of the former company buildings, that is not part of the current day 19 acre site but adjacent to it, is now the Canton Historical Museum, a local history museum and home of the local historical society. The town even celebrates Sam Collins Day, in honor of the founder of the Collins Company.¹¹⁶

9.2 How an Architect Sees the Site

A typical architectural site analysis includes looking at elements such as climate, sun orientation, existing vegetation and natural features, zoning, utilities, existing architecture, circulation, and context.¹¹⁷ The most prominent feature of the site is the long river frontage, and the series of canals and ponds that move water through the site. This combination creates for a very extensive encroachment of the flood zone throughout the site.¹¹⁸ The river frontage also allows for extensive sunlight along the Southwest side,

116 Canton Planning and Zoning, “Strategic Plan,” 17.

117 (2018, Oct.) “Architecture Site Analysis Guide,” web.

118 Canton Planning and Zoning, “FEMA Flood Zone Map,” web.

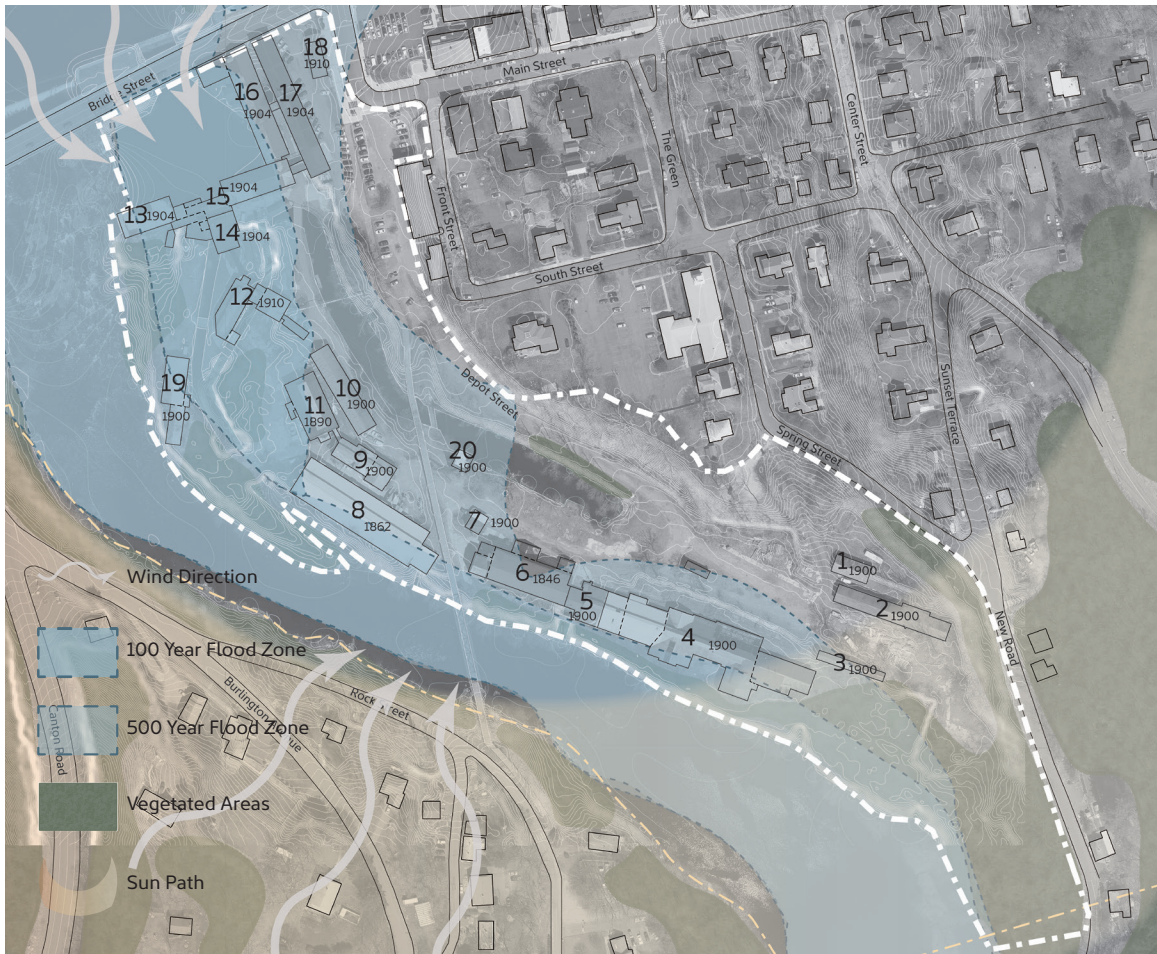


Figure 26: Climate Site Analysis

due to the lack of vegetation and terrain. Portions of the site are heavily overgrown, especially the southern portion, where the terrain is steepest, and the western peninsula that is difficult to access due to canal locations and failing bridges.

Since the site has recently undergone rezoning, specifically geared towards encouraging development, it has its own unique zoning classification, Industrial Heritage, which allows for a variety of uses and higher residential density. The town also adopted a form based building code in April of 2018¹¹⁹ and Collinsville is deemed a specialty village under that code. The site is also bordered by the Collinsville Historic District, as well as the Collinsville Business District.¹²⁰ In addition to its own unique zoning classification, the site also has a zoning overlay that dictates which section of the

119 Canton Planning and Zoning, "Zoning Regulations"

120 Canton Planning and Zoning, "Zoning Regulations"



Figure 27: Use and Zoning Site Analysis



form based building code needs to be followed. The form based code for this section is also geared towards encouraging development, by allowing taller buildings and less stringent material and stylistic guidelines than in other areas of the village. While the zoning map becomes very complicated, it is intended to allow for more developer-friendly zoning and code on the site. The site also has a small portion of business zoning at the north end along Bridge street, and borders several residential districts.

Current tenants on the site are extremely varied and range from light industrial to residential. They include a restaurant in the old train depot - the Crown and Hammer Restaurant and Pub, several retail operations, the largest being the Antiques on Farmington shop, a collection of antique and flea market style vendors, and a variety of office spaces that range from photographers to engineers. There are also several educational tenants, Downright Music, a music education center, and True North, a non-profit Teen learning center, as well as two residential apartment units. The light industrial tenants include Four Square Post and Beam, a woodworking company, J.R.E. LLC Electrical Contractor, Lawrence P. Stewart Custom Cabinets, and a Tool & Manufacturing Company. All of these tenants primarily occupy the northern half of the site, with the bulk of the tenants in the front buildings around the retention pond. The middle section of buildings, north of the bike path, are primarily light industrial tenants that need more space. The southern portion of the buildings are empty, or being used only for storage and in generally poor condition.

9.3 How a Developer Sees the Site

When a developer is analyzing a potential site, they focus primarily on the market data, specifically potential trends in demographics, occupation, income, and competitors. Most census data that has been aggregated and publicly available is for the entirety of Canton. The town at large is very agricultural and rural, with a predominantly white population (94%). The town has a higher percentage of residents

with a bachelor’s degree or higher than the state average, and a median age that is also above the state average.¹²¹ Looking at living statistics, Canton has a lower than state average renting population, and a median home price of \$294,278, which is above the state average of \$274,600. The average age of homes is quite young, well under the average of Connecticut. Canton also has a higher median household income than the state of Connecticut. The majority of commuters in Canton drive 15-30 minutes to work, which likely means commuting into Hartford or Torrington areas. Hartford is home to a concentration of businesses in the Finance and Insurance sector, which represents the second most common employment industry for males, and the most common for female residents. The most common industry for males is the construction industry, and the second most common for females is health care.¹²² The most common occupations for male residents are management positions, supervisors, engineers, top executives, and computer specialists. For females it is office supervisors, sales supervisors, teachers, assistants, and administrators. Overall, this paints a picture of a town of educated white upper middle class families living in newer homes and commuting into surrounding communities for work. The town has been seeing a steady increase in population growth since 1970, as well as an increase in the price point of new construction homes. The 55 and older population of the town has seen the most growth, and is predicted to drastically increase in the coming decade (Figure 28).

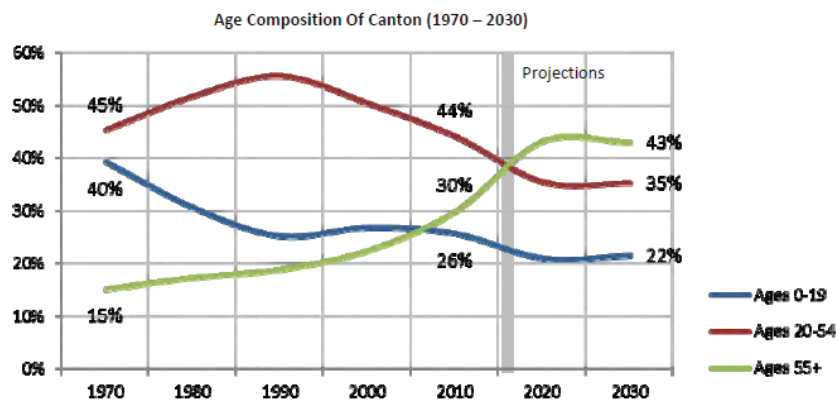


Figure 28: Strategic Plan Population Age Distribution Change (Canton Planning and Zoning, 5)

121 “Canton Connecticut,” web.

122 “Canton Connecticut,” web.

Looking more closely at the data around Collinsville reveals that the village has a slightly lower household income and a slightly lower age than Canton.¹²³ It also shows a higher relative proportion of renters, which is still low compared to the state (Figure 29).

| DEMOGRAPHICS | | data provided by Costar | | |
|------------------------|-----------|-------------------------|-----------|--|
| | 1-Mile | 3-Mile | 5-Mile | |
| Average Age | 40.30 | 40.60 | 41.50 | |
| 2017 Median HH Income | \$97,879 | \$118,925 | \$117,101 | |
| Owner Occupied | 796 | 5,067 | 13,994 | |
| Renter Occupied | 205 | 771 | 2,226 | |
| 2012 Median Home Value | \$328,882 | \$367,318 | \$352,792 | |
| Household by HH Income | | | | |
| <\$25,000 | 88 | 430 | 1,295 | |
| \$25,000 - \$50,000 | 150 | 644 | 1,785 | |
| \$50,000 - \$75,000 | 106 | 593 | 1,880 | |
| \$75,000 - \$100,000 | 171 | 902 | 2,076 | |
| \$100,000 - \$125,000 | 74 | 463 | 1,570 | |
| \$125,000 - \$150,000 | 60 | 484 | 1,494 | |
| \$150,000 - \$200,000 | 110 | 707 | 2,162 | |
| \$200,000+ | 242 | 1,616 | 3,958 | |

Figure 29: Colliers Brochure Demographics data

Since the site is up for sale, and has been since 2006, there have been developers that have created proposals for what could happen on the site. The earliest publicly available plan is from 1999 by Pfeufer Richardson Architects, prior to the current owner purchasing the site (Figure 30). It focuses on revitalizing the circulation for both vehicles and pedestrians across the site, as well as maintaining all existing buildings. It provides for additional new buildings at the southern end of the site, as well as a river walk and several pedestrian plazas. The partial plan (Figure 31) was done by Snyder Egbue out of the Washington DC area sometime between 2000 and 2009 and is focused on building as many single family homes as possible on the site, while keeping only a few of the existing buildings. The plan done in 2010 by Fuss and O’Neil (Figure 32) is a middle ground between the two prior plans. It keeps a few key buildings, but focuses on bringing in lots of new residential buildings on the southern portion of the site, as well as a parking garage to support a hotel. The most recent plan (Figure 33) was done sometime prior to 2016 and highlights keeping most of the current buildings on the site, with the

123 “For Sale - Mixed Use Development Investment Site - Collinsville Axe Factory,” web.

addition of several large residential buildings, as well as some smaller, potentially single family, homes along the fire retention pond.

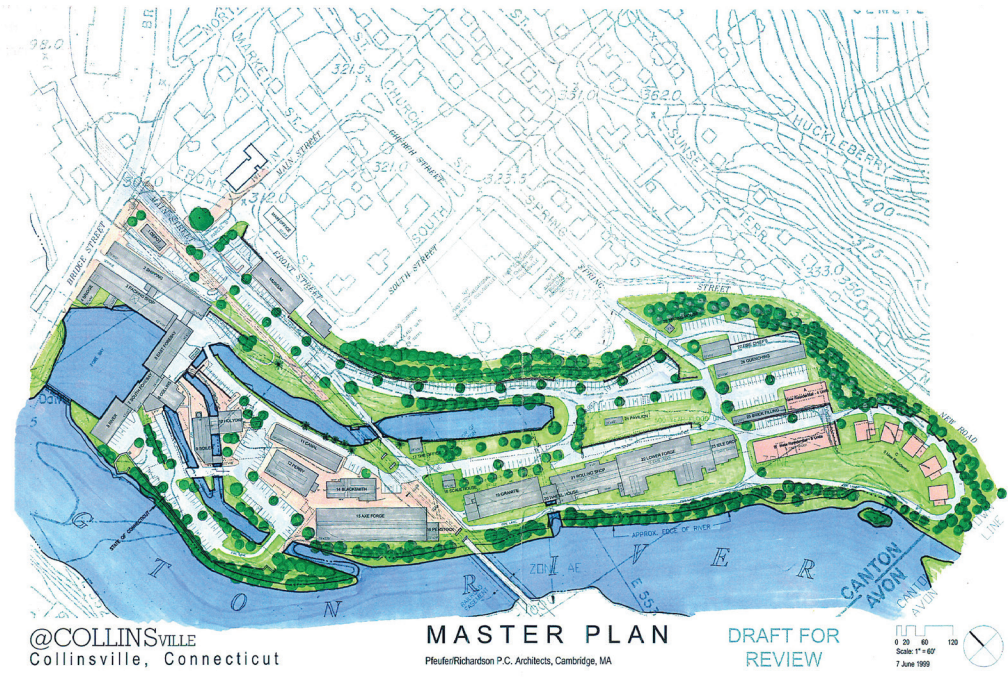


Figure 30: Pfeuffer Richardson Master Plan 1999

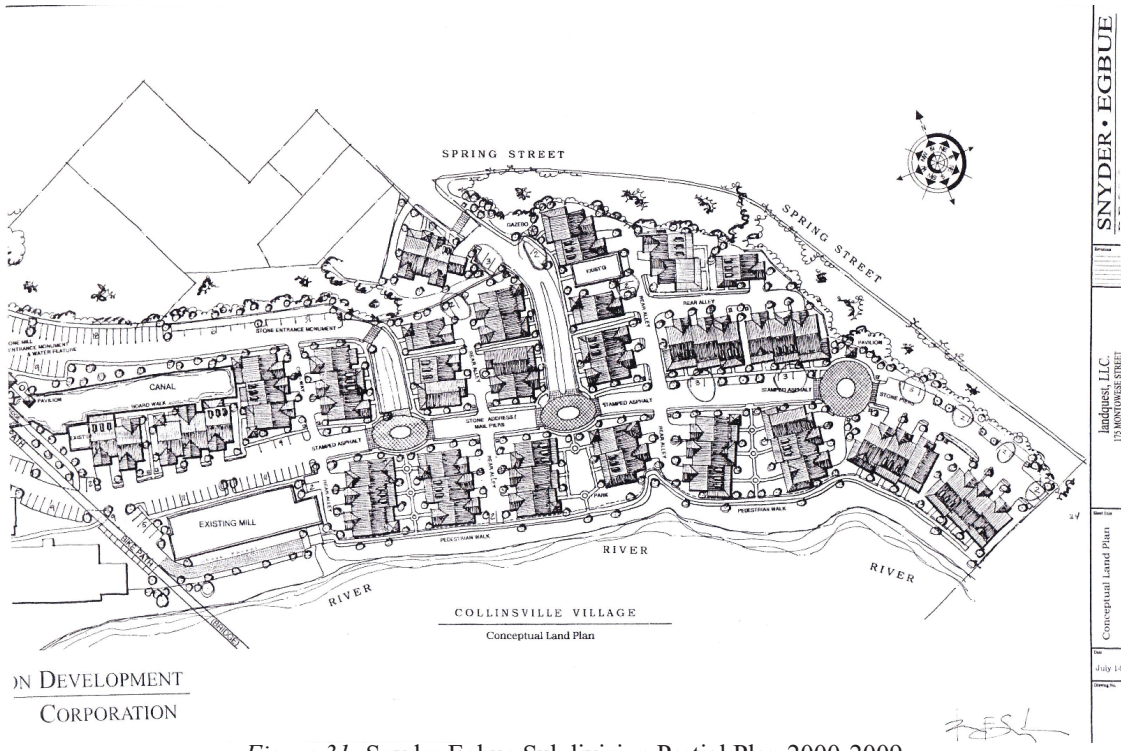


Figure 31: Snyder Egbue Subdivision Partial Plan 2000-2009

Master Plan of Proposed Uses

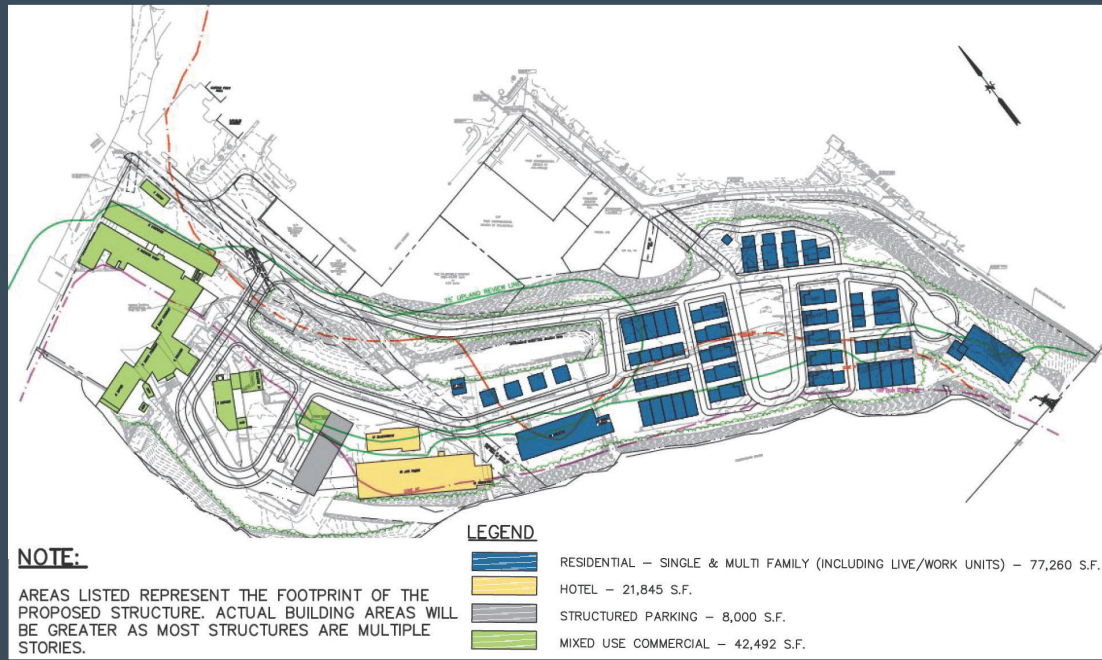


Figure 32: Fuss & O'Neil Master Plan for Rezoning 2010



Figure 33: Colliers International Marketing Master Plan Prior to 2016

9.4 But What is the experience?

Looking at plan graphics, data, and previous designs is important, but what does the site feel like? What makes this place so intriguing and memorable to so many people? Over the course of this thesis, I was able to visit the site several times. One of the first things that struck me in walking around the site was how one could sense the history of the site without knowing its details. While reflecting on some of the images I took during my visits, I began to realize how many layers of architectural changes I could see, and that perhaps that evidence of not only weathering from the elements, but also the remnants of architectural changes as the uses of the buildings changed and evolved could be part of that deeper sense. So I went through some of my images and annotated the changes I was seeing (Figure 34), even musing on why some of those changes had been made.



Figure 34: Water Pond and Front Building Changes Over Time

On a return visit, I decided to walk the vehicle entrance sequence, whereas prior visits I had only followed public pedestrian paths into the site. I was struck by how

hidden the site entrance felt, and that the feeling of having arrived into the site happened so far down the road in the site. This is due in part to two forces. The first is that the main road into the site, Depot Street, looks like a parking lot from Bridge Street and Main Street. The road, out of the back of the parking lot, is so worn out that it initially looks like a gravel road. The second factor is the steep hill that Depot Street is cut into. As you drive down the road into the site, the hill climbs sharply up towards town on your left, with the fire retention pond down the embankment to your right. The road feels very compressed between the land and the water and indeed it is narrow (the telephone pole in the middle of the road halfway down doesn't help this). There is a moment along the road where it widens to allow for cars to pass more comfortably just as the trees thin out, creating a small overlook area about halfway down the road (Figure 35). It was at this point that it felt like I was in the site, even though I had been within its boundaries since I had turned into the parking lot.



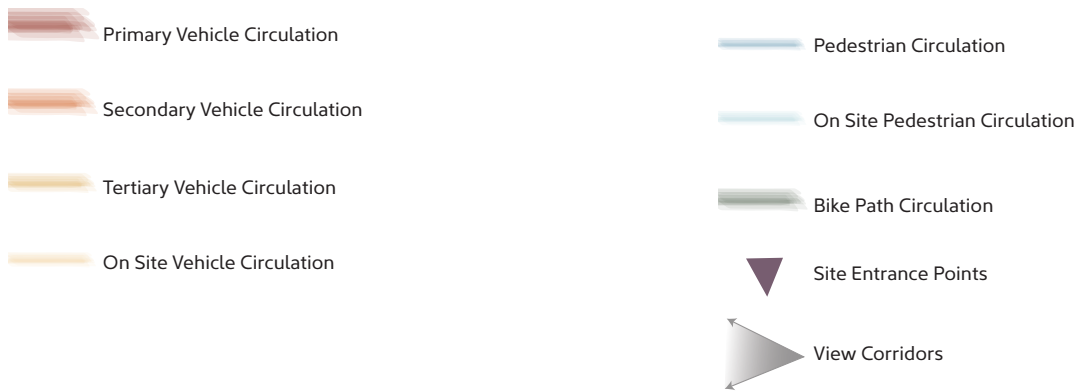
Figure 35: Moment of Arrival Walking down Depot Street

I also realized on walking this path, that one never sees the river once you have entered the site, unless you get out of your vehicle and walk behind the line of buildings on a very overgrown pathway, or are on the elevated bike path, which is somewhat

isolated from the rest of the circulation. In plan, the river is an always present, obvious entity, but in experiencing the site, the river is only ever a murmur in the background; heard but never seen. A visitor only experiences the water in the retention pond and the occasional canal, a small inkling of the river that has been so instrumental in the rise, and then fall of this site. Most of the circulation on and around the site, both vehicular and pedestrian, with the exception of the bike path, is separated from the river's edge by buildings (Figure 36). The only opportunities to walk along the river edge are walking across the extremely busy Bridge Street bridge at the north end of the site, crossing the bike path bridge (which is very much separate from the site as an elevated walkway through), or behind buildings 4, 5 and 6, to the very overgrown pathway that is rarely used and private property. These two experiential factors, the moment of arrival and the lack of presence of the river, played a key role in my understanding of the site and ultimately the shaping of the architectural design. These elements are unique to this Place, tied to the experience, both past and present, of the site.



Figure 36: Phenomena Site Analysis



CHAPTER 10

PROJECT

10.1 Approach to the Site and Program

Approaching the design of the site, what it should be used for became the first priority. It was clear that it should not return to being a factory, that chapter of its history had closed. It could not continue to function as it does today, because the income from the tenants is not currently enough to support the maintenance requirements of the large number of aging buildings. Looking to the town’s extensive strategic planning document, completed in 2018, provided a starting point of not only what the town thought the site could be used for, but also how the community viewed themselves in 2018, and the future. Based on community input and planning, the strategic plan identified open space and natural resources as their top priority, with business development close behind.¹²⁴ They also highly value community character and historic resources (Figure 37).

Residents Identified The Following Priorities ...

At one of the public meetings, residents were asked to identify issues (from a pre-defined list) which they felt were most important to them as part of the planning process:

| | Things We Want To Protect | How We Want To Grow | Services We Want To Have |
|----------------------------|---------------------------------|---------------------------|--------------------------------|
| Top Tier Issues | | | |
| Business Development | | | |
| Open Space | | | |
| Natural Resources | | | |
| Community Facilities | | | |
| Middle Tier Issues | | | |
| Community Character | | | |
| Historic Resources | | | |
| Traffic and Circulation | | | |
| Walking / Biking / Transit | | | |
| Lower Tier Issues | | | |
| Community Structure | | | |
| Water / Sewer / Utilities | | | |
| Residential Development | | | |
| Housing Needs | | | |

Figure 37: Strategic Plan - What Residents Prioritize

¹²⁴ Canton Planning and Zoning, "Strategic Plan," 8.

The strategic plan also gave insight to the strength of the present-day community present. The town, and especially the village of Collinsville, have numerous community events throughout the year, including several parades, farmer’s markets, and carnivals. For such a small town, the number of events is quite high. The Strategic plan also outlines local pride in their identity as a arts and recreation destination for the region, “Collinsville has emerged as a center for the arts and ecotourism in northern Connecticut; and was selected by Arthur Frommer’s Budget Travel magazine as on of the ‘Ten Coolest Small Towns in America.’”¹²⁵

While highly valuable to have community input, the outline of needs and wants was not very extensive and so additional programming would be required to fill the existing buildings and site. But what type of programming fits the story of Collinsville, and how does that programming support both Place and real estate development needs?

To explore this question further, I turned to the concept of First, Second, and Third Places, put forth by Ray Oldenburg in his 1999 book, *The Great Good Place*. He identifies that a critical component of community are the spaces “in-between” home and work where people socialize and build relationships. If home is the first place, and work the second, then these “in-between” spaces are third places. He identifies a few examples such as cafes, clubs, libraries, and barber shops¹²⁶. Drawing from that, the need for all three types of spaces in a community is critical. But what if these three spaces are further refined to define both Place and Real Estate Development (Figure 38)?

| | 1st Places Home | 2nd Places Work | 3rd Places In Between |
|-------------|--------------------|---------------------|----------------------------------|
| Place | Home Ownership | Local Businesses | Local Bars, Cafes |
| Development | Rental Housing | Corporations | National Chain Restaurants |

Figure 38: Expanded First, Second, and Third Places

How do different types of program help to foster Place? The best stories are where one

125 Canton Planning and Zoning,”Strategic Plan,” 81.

126 Oldenburg “The Great Good Place”

feels emotionally invested in the characters, and so creating emotional investment in spaces can help curate Place. For first places, this means creating a sense of ownership and pride, so including spaces that can be purchased by residents. For second places, it means creating a sense of pride in community, so encouraging local businesses. For third places, it is creating opportunities for local in-between spaces, and enhancing the community events that are already in place. Development demands steady income opportunities. For first spaces, that can mean rental income from apartments, for second spaces, that means larger work spaces that can cater to corporations who are more stable and lower risk tenants. For third spaces, this means tenants such as corporate chain restaurants who are more established and have a reliable clientele base already.

Expanding on that concept of the three types of spaces and adapting it to Collinsville's identity of an arts and recreation destination, the third space becomes the element of Play, especially in the sense of outdoor recreation. In adjusting the language for third spaces, first spaces become Live elements, and second spaces become Work elements. In approaching the application of these programming ideals to the former Collins Company site, it became clear that separating the different types of spaces completely would hinder the ability to create complex narratives and experiences, but if the spaces were integrated and mixed across the site (unlike any previous development proposals for the site), then the whole site could be activated throughout the day, allowing for an increased interweaving of experiences.

Shown in *Figure 39* below, the site was overlaid into three different zones, Live, Work, and Play. While each zone emphasizes a particular type of space, all three types of program are mixed throughout the development, allowing each zone to have varying levels of activity throughout the day. For example, the typical work day of nine to five would mean the Work zone is more populated during these hours, and the Live zone would be less busy due to people being at work. This diversity of activity levels gives people choices on not only what type of space they want to be in, but also how much

activity they want to be around.

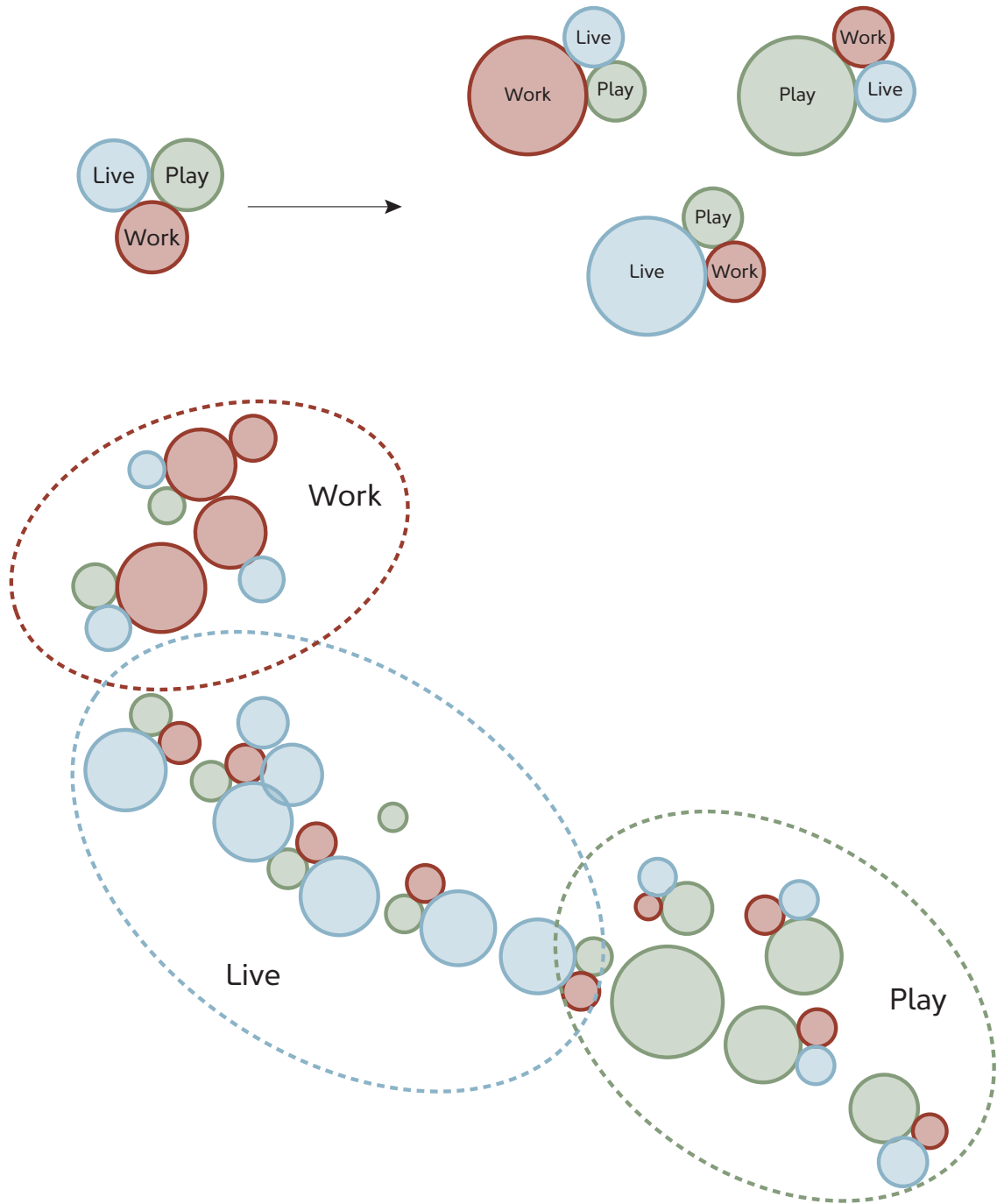


Figure 39: Diagram of Approach to Live, Work, and Play on the Site

Real Estate Developers rarely get to choose what happens in the spaces they create. They may get to dictate whether the space is an office, or a retail environment, but they do not get to choose what type of office, or which store goes into their space (in

terms of design, not leasing). But in developing Place, it becomes important to think about what the experience of the site is, and to do that one must think about scenarios of what could occur on the site over time. For programming, this means thinking about what could happen on the site, in more detail than simply Live, Work, or Play. Below is a list of businesses (Figure 40), or types of spaces that would align with the goals of the community of Collinsville, and help amplify the sense of Place it is fostering.

| Potential Live Program: (Mix of rental and owned) | Potential Work Program: (Targeted businesses) | Potential Play Program: (In-between spaces) |
|--|--|--|
| Condominiums | Healthcare facilities (esp. | (Rock Climbing) Gym |
| Apartments | Senior Care) | Restaurant(s) |
| Town-homes/Row-houses | (Artisan) Furniture builder | Outdoor Gear Shop |
| Lofts | Wood/Metal Fabrication | Bike Rental and Repair |
| Bed and Breakfast/Boutique | Shop(s) | Shop |
| Hotel | General office space for | Bowling Alley |
| Residential amenities | small/local businesses | (Used) Book Store |
| | | (Indoor) Playground |
| | | Gallery Space |
| | | Dog Park |
| | | Brewery |
| | | Cafe |
| | | (Used) Sports Equipment |
| | | Store |

Figure 40: Potential Site Programming List

10.2 The Master Plan and Phasing

In creating a new master plan for the site, the primary challenge was how to balance saving as much of the existing architecture as possible, while still maintaining the financial feasibility of the project. Introducing a series of phases to the plan allowed

for breaking up costs over a longer, sequenced, period of time, as well as being able to use finished portions of the site to begin generating more income that could fund later portions of the development.

The first phase of the plan targets the southern end of the site, the Play zone, as it is the most open, buildable area of the site, with the least amount of existing tenants, and the buildings with the most immediate need for renovation (Figure 41). Phase one

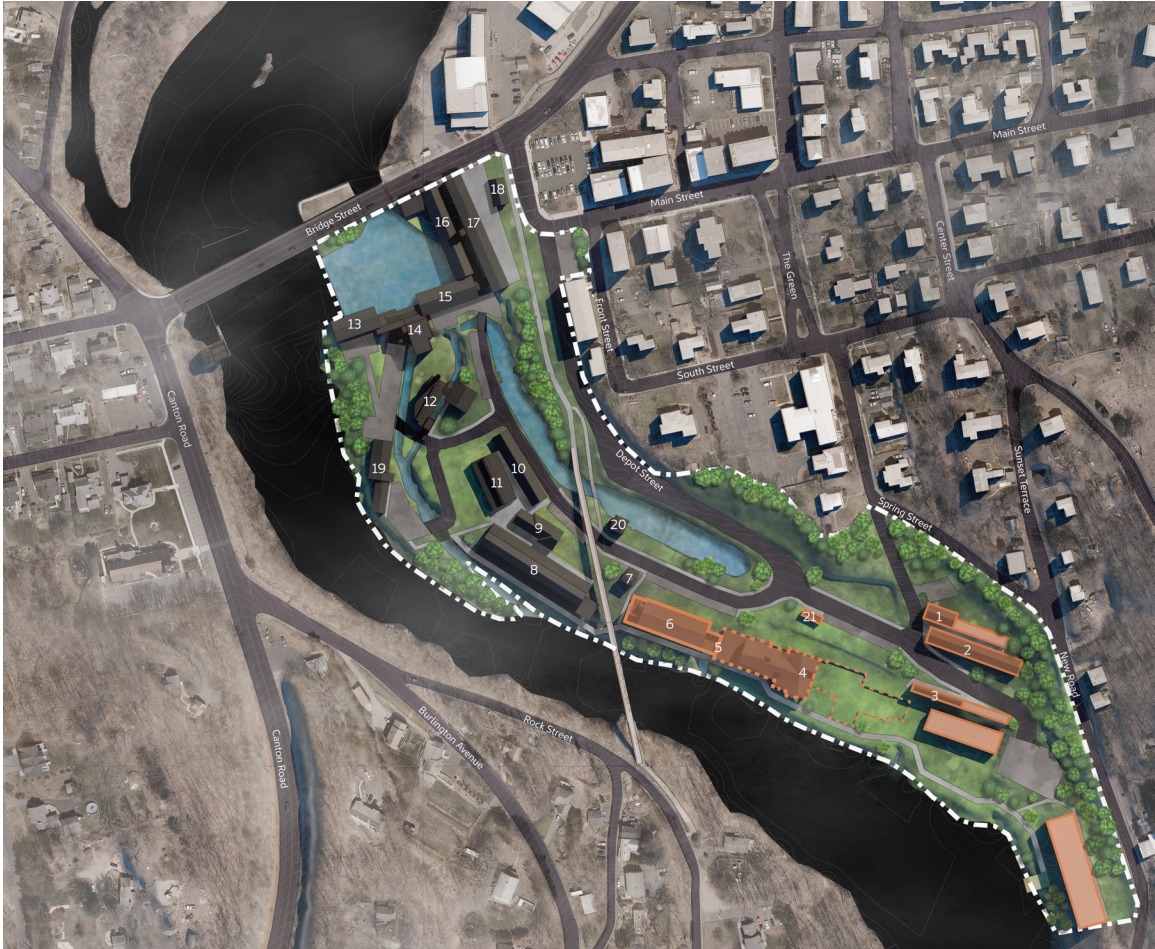


Figure 41: Phase 1 Master Plan

begins with demolishing buildings four and five, as they are no longer salvageable due to structural issues. Next, the overall site work would be approached by renewing and repairing roads, bridges and canals, adding sidewalks, updating utilities and adding parking lots. Simultaneously with the site work, new buildings would be designed and built in the footprints of former factory buildings, including a replacement for building

five. Renovation and additions to buildings one, and three, and renovations to buildings two, six, and twenty-one would also occur at this stage. Once, initial site work is complete, landscaping of the play area would focus on developing a River Walk behind the buildings, as well as a large open area park between buildings three and four that can serve to host community events.

Phase two focuses on the central portion of the site, the Live zone (Figure 42).



Figure 42: Phase 2 Master Plan

With majority of the site improvements already done, this phase site work focuses on developing a pedestrian plaza around buildings, eight, nine, ten, and eleven, as well as any repairs to the bike bridge. Landscaping for this phase includes the development of several small green spaces between buildings, as well as the north end of the River Walk behind building eight. This phase includes the addition of two new buildings that

also occupy the footprints of former buildings. Renovations to buildings seven through eleven, and building twenty would also fall in this phase.

The last and final phase, Phase three, targets the northernmost portion of the site, the Work zone, where most of the existing tenants are located (Figure 43). Site work



Figure 43: Phase 3 Master Plan

in this phase is minimal and focuses on renewing the paved area between building seventeen and eighteen into a pedestrian plaza (rather than a parking lot as it is currently), and the maintenance of the north retention pond and dams. The pedestrian plaza would also include a proposal for a bus stop that connects to the Hartford Area transit system. Landscaping focuses on developing the green areas around buildings thirteen and fourteen. Two new modest buildings would be added, again in the footprint of former factory buildings. The phase concludes with the renovation of buildings twelve through

eighteen, and would be done in smaller, incremental steps to try to retain and preserve as many of the existing tenants on the site as possible.

10.3 Zooming in on Building Six



Figure 44: Building Six Existing Front Facade

The Master Plan is supported by the architectural design of a specific building project to jump start the rest of the proposed redevelopment of the site. Buildings four, five and six seemed to have the most potential for a number of reasons. Due to structural failures and a fire that destroyed the roof of building four, it needs to be torn down. Building five is simply the piece-meal addition that links buildings four and six together, and is also in poor condition as it is primarily wood sided and unmaintained. However, the open space and foundation they leave behind provides an opportunity to test how new buildings might be integrated into the existing complex by taking over, or partially occupying, the footprint of former factory buildings.

Building six is currently the only stone building. It is also the oldest building that survived the massive flood of 1955 and can serve as a test case for the adaptability

of the remaining existing structures.. The building is currently vacant, but is situated central to the site, next to the elevated bike bridge and along the river front. It also has a small canal that emerges from under the building on the back side to flow out into the river. And perhaps most critically, it is the first building one sees from the moment of arrival vantage point discussed earlier. It provides an opportunity to set the tone and expectations for a visitor's experience, as well as a test case for being able to adapt the remaining existing structures.

The building is a three-story stone structure, built in 1826. The interior is primarily open, with few interior dividing walls and a central line of columns down the middle. The building appears to have a two story brick addition to the north, and a one story brick addition to the south that connects it to buildings four and five. There have also been several wood shed structures added on to the front of the building, as well as a wooden stair tower. The main entry to the building is into the second floor, up a covered set of stairs. This is due to the half-level grade decrease between the front of the building and the back (river) side, where the first floor is at grade.



Figure 45: Existing Interior of Building Six, June 2016

Being currently vacant, the building is beginning to show a lack of maintenance, most visibly apparent in the rotting wood siding of the front and side sheds. On my first visit to the site in June 2016, I was able to access the interior of the building on a guided tour (Figure 45). During the series of visits to the site over the course of this thesis, a fence was erected around the front entrance and I was informed that the building was beginning to have structural deficiencies (despite previous investment in improving the structure) and was no longer safe to enter. Despite its current state of disrepair, the building still provides a rich canvas for an architectural intervention.

10.4 Building Design Approach - Layers, Salvaging

When approaching the design strategy for working with the existing architecture and introducing new components, the idea of layering became a primary concept. With the site's rich history and the density of physical elements on the site, the design explored a variety of interpretations of what layering could mean, from geological layers, to layers of materials and spaces, to layered flows of movement (people, water, vehicles, etc.), to layers of individual experiences. Eventually settling into a more tectonic approach of nested layers (Figure 46). By nesting the layers, they become less apparent, so as a

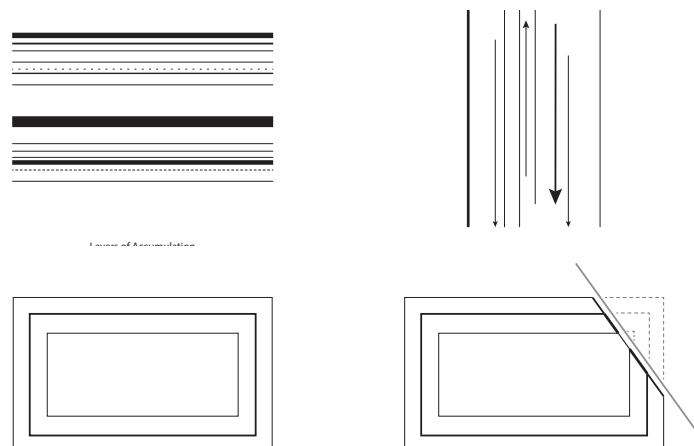


Figure 46: Approaches to Layering Concept Diagram

counter to this, the layers can be sliced through to reveal the layering (much like how a river erodes a mountain to reveal cliffs of layered rock strata, or cutting through an

onion reveals the concentric layers). The idea of layering also highlights the elements of narrative by using architecture as a framework and canvas for collecting, documenting, and showcasing experiences over time. This design seeks to test these ideas on both an existing building and a new architecture in order to develop a more complete narrative and holistic approach to the site.

Further developing the idea of cutting through the layers, the design explored using the narrative experience of entering the site to determine key experiential moments that build off of the moment of entry experience from the site analysis (Figure 47). This cutting of the layers, and consequently the architecture, also provides an opportunity to bring the river back into the forefront of the experience of the site, and to the community of Collinsville.

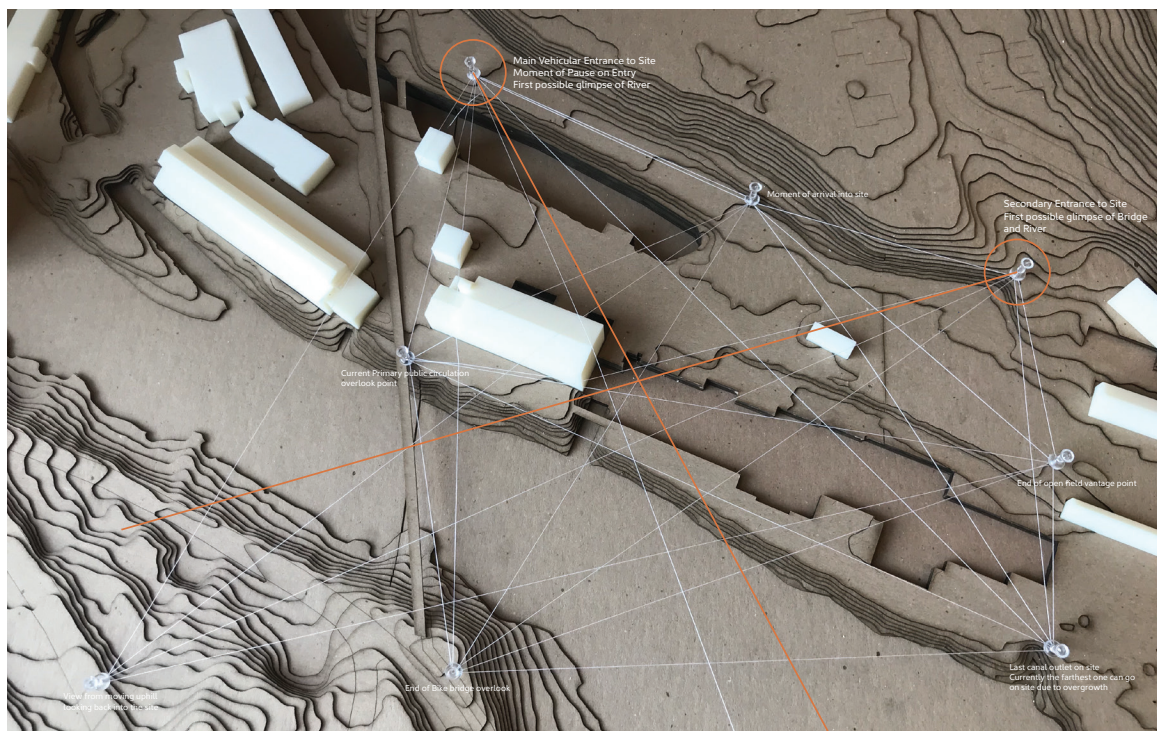


Figure 47: Narrative Sequence Views Diagram

Adopting the nested layers concept to the existing building, the design pulled from Stewart Brand's concept of shearing layers (in which he outlines different rates of change between the architectural elements of site, structure, skin, services, space plan, and stuff). In the design, the nested tectonic layers were identified as the Shell, the

Structure, and the Space. The design removes buildings four and five due to their poor condition and failing roofs and focuses on keeping the most critical and structurally sound components of building six. These components are the stone and brick portions of the shell which not only remind viewers of bygone building practices, but also show a healthy amount of weathering which serves to highlight the passing of time. By keeping the stone and brick shell of the building and little else, the memory of the site remains intact, while still allowing for imagination. It also balances the real estate development need to remain fiscally reasonable by targeting specific elements to invest more into, rather than trying to restore all the elements of the building.

Moving inward to the Space layer, the design sought to develop an approach that would not only work for a new building, but also existing buildings, specifically building six. This required first understanding what program would occupy both the existing stone building, and the new building. Having the master plan as a guide, both buildings fall in the Play zone, and so would include a heavier proportion of in-between spaces. Being near the Live zone provided an opportunity to create a transitional building program that held a balance between the two zone types. Both buildings also fall within the flood zone, and so the question of what types of spaces could occupy the first floor became critical. It was also important that the concept of having all three types of spaces (First, Second and Third) be integrated at the scale of the individual building, and not just the master plan.

Based on this criteria, the building programs became commercial/mixed use type spaces on the first floor, and then residential on the floors above. From there, it became important to really understand what the commercial spaces could be. Returning to the potential program list based on the town identity and strategic plan, the design targeted introducing a café, small retail spaces, and a large farm-to-table restaurant and brewery. In developing the residential program, a brief study of the local real estate market revealed that there was a lack of rentals, in particular two bedroom units. Also thinking

about the residential data and the need to support an aging population, but also attract young families to help balance the age diversity of the community, rental apartments were selected. This fills the most immediate housing needs of the area, and helps to generate income to support future phases of development. Bringing it all together, the two buildings' combined program is shown in *Figure 48* below.

| | Square feet |
|---------------------------|---------------------|
| Public: | |
| Cafe | 2,000 |
| Retail | 7,325 |
| Retail 1 | 825 |
| Retail 2 | 1,500 |
| Retail 3 | 1,900 |
| Retail 4 | 3,100 |
| Farm to Table Restaurant | 9,250 |
| Kitchen | 3,025 |
| Dining | 4,725 |
| Brewery | 1,500 |
| | |
| Programmed Outdoor Space | 1,050 |
| | |
| Residential: | |
| Lobby 1 | 1,225 |
| Lobby 2 | 1,100 |
| Units | 20,700 |
| 1 Bedroom (x6) | 700 |
| 2 Bedroom (x10) | 1,125 |
| 3 Bedroom (x4) | 1,300 |
| Communal Spaces/Amenities | 4,000 |
| | |
| Mechanical: | 3,000 |
| | |
| Program: | 48,600 |
| Circulation: | 19,750 (29%) |
| | |
| Total: | 68,350 |

Figure 48: Program Breakdown

Having identified the programmatic needs for the buildings, the design began to test fit the interior spaces. Initial layouts for residential units in the existing stone building, following a typical retrofit approach of a double loaded corridor, only allowed for three units per floor, with only two floors of residential making a maximum total of six units. For the potentially higher cost of saving the stone shell exterior, this seemed to be a low number of units, and not enough of a payback to support the design concepts. Returning to the concept of layers, and Space as a separate layer, the idea of using a modular apartment unit seemed a potential solution.

Studying the Stora Enso modular building system¹²⁷ as a precedent for developing the module, several benefits became clear. One, that the module could be made using cross-laminated timber (CLT) panel construction, allowing for a self-contained structure, and two, a potentially lower cost by utilizing off-site manufacturing. The self-contained structure of the module, and their ability to stack provided several architectural opportunities to be able to increase the number of units per building. First being that by stacking the units, the floor to floor heights decreased, allowing for an additional floor to be added, without adding much additional height to the building, and second, the self-contained structure of the module meant that they could be cantilevered beyond the existing shell with little to no additional structure. These two opportunities increased the number of units per floor, as well as allowed for slightly larger apartment units, bringing the total number of apartments for the existing building up to nine units.

10.5 The Architecture of Narrative - Design

The final building designs integrate a narrative understanding of Place through architectural adaptation and reuse, tectonic layering, and the integration of First, Second and Third places. To highlight the tectonic layering approach of Shell, Structure and Space, a central cut is made to the front facade of the building that not only opens and reveals the interior program elements, but also serves to remove a failing part of the stone

127 Stora Enso Division Wood Products, "Building Systems"



Figure 49: Main Entrance to Site Rendered Perspective View

facade. This cut is then used as an interior circulation spine for the first floor, creating an interior access to all the retail shops in the building, shown in the first floor plan (Figure 50). The space between the buildings is derived from the view point analysis to create a momentary view of the river between the buildings as one arrives to the site from either vehicular entrance. This is another form of cutting through the layers to highlight how they are interacting. The space between the buildings is called the Ruin Garden, as it consists of remaining relics of the former building, such as the brick and stone wall of building five, and part of the steel truss system of building four, visible in Figure 49. The

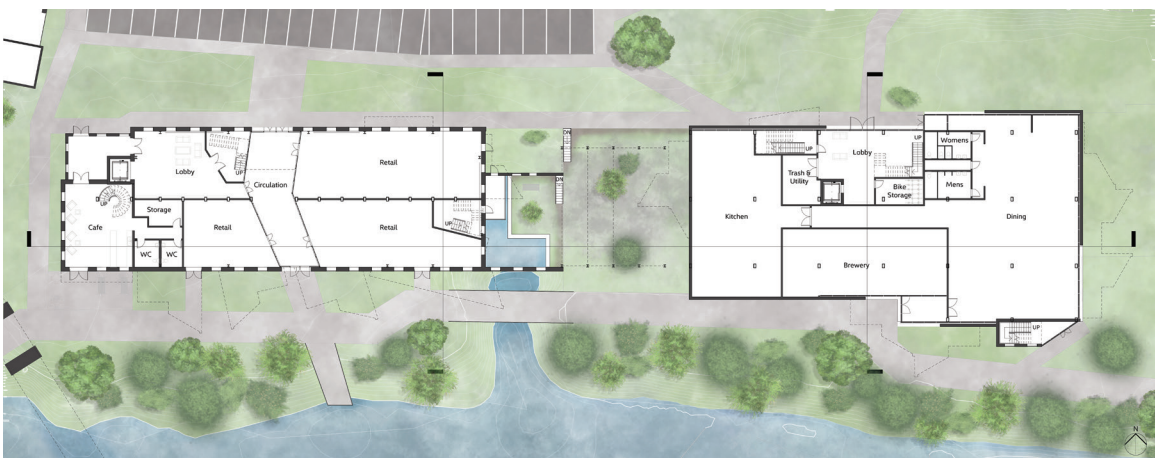


Figure 50: First Floor Plan

ruin garden has three different floor levels that correspond to the foundation levels of the buildings being removed. These level changes help define the space and create a

ghost like presence of the history and architecture that was once there, and intangible reminder of the site memories. The garden area also features daylighting the small canal that runs under the buildings into a pond and waterfall feature. The pond would fill, and then overflow through a cut in the stone wall that remains from building five, creating small waterfall feature as it returns to the river by flowing under the River Walk. These cuts through the layers of the building not only highlight the tectonic layers of the architecture, but also serve to help reintegrate the river into the users experience by cutting through the layers of the site.

The module apartments that make up the bulk of the Space layer, are designed as a kit of parts, that allows for the creation of either one, two or three-bedroom units by adding additional units (Figure 51), which allows for a more efficient manufacturing process. The addition of a second story to the two (and subsequently) three bedroom units helps control the length of the module, allowing for my flexibility in trucking

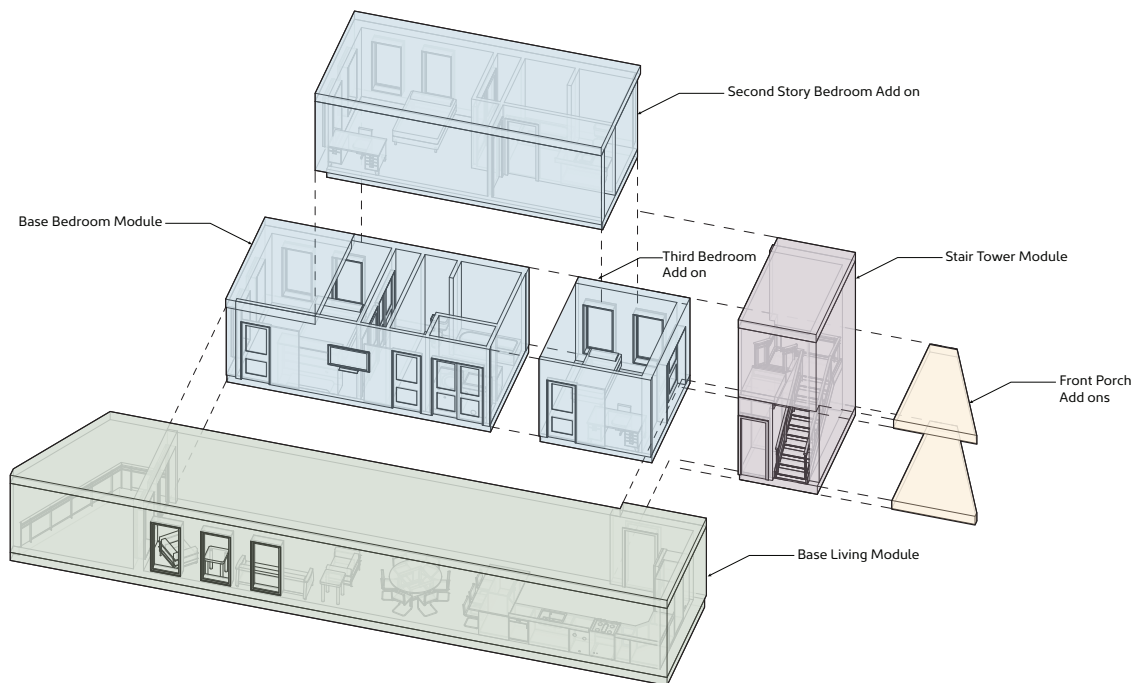


Figure 51: Apartment Module Elements Exploded Axon Diagram

requirements. It also makes it easier to place the unit so that each bedroom has access to daylight, as required by code. The second story also creates interesting moments of

interaction between modules as they stack, forcing the floor plans to adjust from floor to floor, rather than simply being duplicated vertically throughout the building. This helps provide complexity to the system, without introducing unnecessary costs. The apartment module system sits atop a platform structure to raise the CLT apartments above the first floor (and the flood zone). Apartment modules are arrayed throughout the existing building at a variety of angles in response to the facade and circulation spine cut of the first floor to create interstitial spaces and create variety in the circulation routes (Figure 52 & Figure 53). In cantilevering the arrayed units, they punch through the existing building shell. In order to minimize the cost of punch and supporting a large number of holes in the existing facade, the south and east walls would be removed above the first floor and replaced with new walls that could be built around the units after their placement. In the new building, the modular units are arranged more efficiently, and the shell wraps around the units at different angles to develop the circulation variety and interstitial spaces.

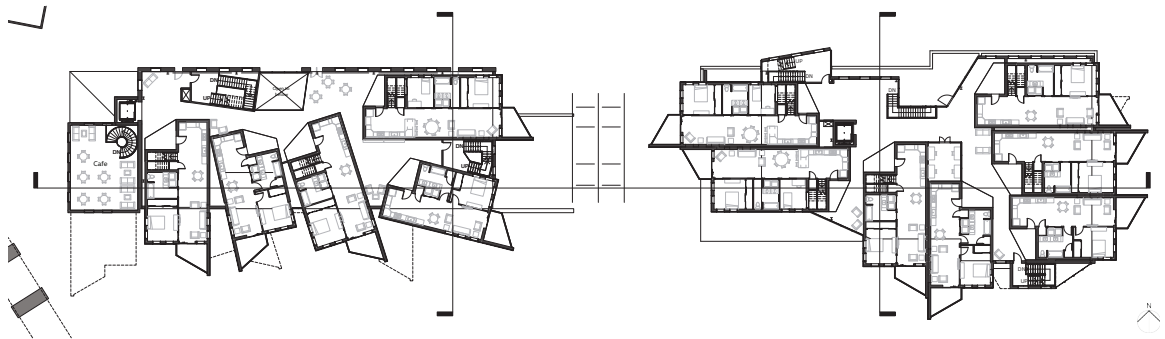


Figure 52: Second Floor Plan

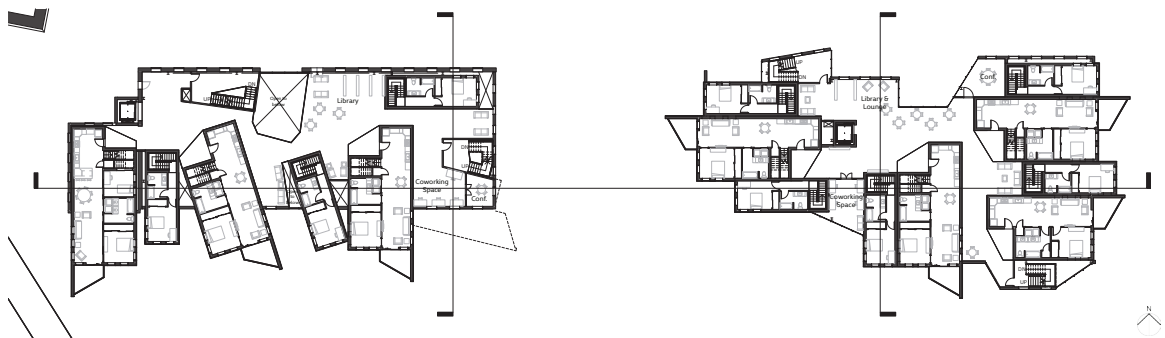


Figure 53: Third Floor Plan

These interstitial spaces create Second and Third places within the building. These areas can be used for co-working, conferences, lounging, studying, and as meeting rooms and

libraries. They occupy the nooks and crannies created by the interaction of the Space and Shell layers.

Due to the two story nature of the apartment modules, the upper most floor has fewer units (only single story one bedroom units) and so the remaining square footage is devoted to amenity spaces targeted towards community building as well as mechanical rooms (Figure 54). By placing the mechanical systems on the fourth floor, they are not only protected from weather events (unlike if they were on the roof), they are also protected from flooding damage that is likely to occur again on the site at some point.

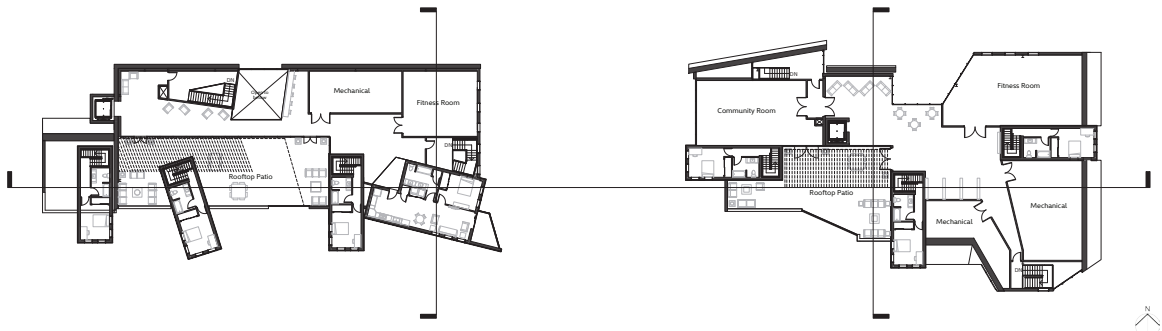


Figure 54: Fourth Floor Plan

The community amenities on the fourth floor are similar across the two buildings, both featuring fitness rooms, general lounging areas, community rooms, and large roof-top patios. The roof-top patios not only create space for casual interactions, it is also another way of cutting through the layers at a more intimate scale in order to reveal the tectonic layers, and integrate the river back into the building experience. Figures 55 - 63 show additional drawings and images of physical models of the building designs and the concepts discussed.



Figure 55: East Elevation



Figure 56: West Elevation



Figure 57: Section through Building Six (Existing Shell)



Figure 58: Section through New Building Four Shell

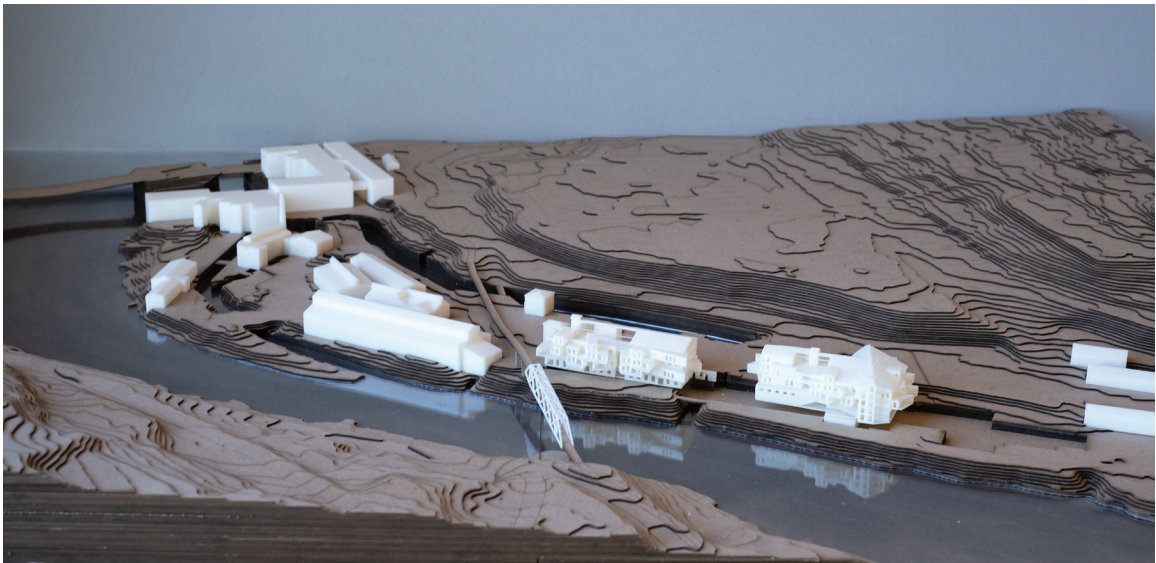


Figure 59: Physical Site Model at 1:500 Scale



Figure 60: Physical Sectional Model of Building Six at 1/8" = 1' Scale

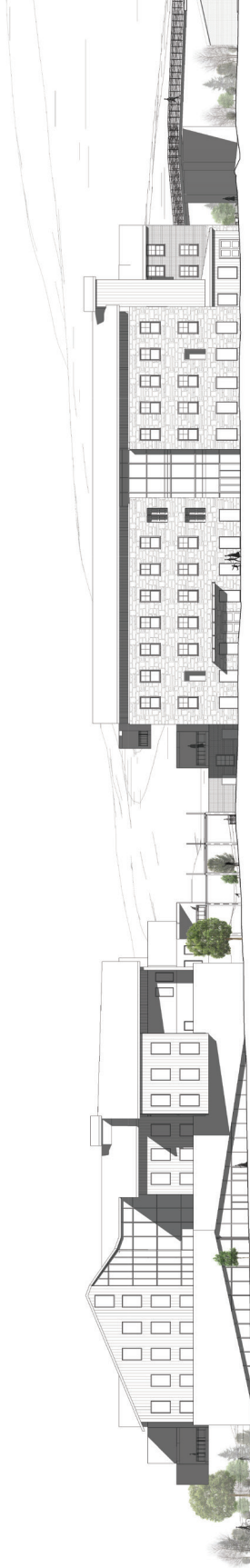


Figure 61: North Elevation



Figure 62: South Elevation



Figure 63: Section through both Buildings and Ruin Garden

10.6 The Visual Narrative

In working with the former Collinsville Axe Factory, the approach to and experience of the site became critical influences of the design. As such, the following images are sequenced to walk the viewer through the design, moving from the approach to the building, to the interior and then finally into an apartment unit.



Figure 64: Street View Looking North Rendered Perspective



Figure 65: River Walk View Looking North Rendered Perspective

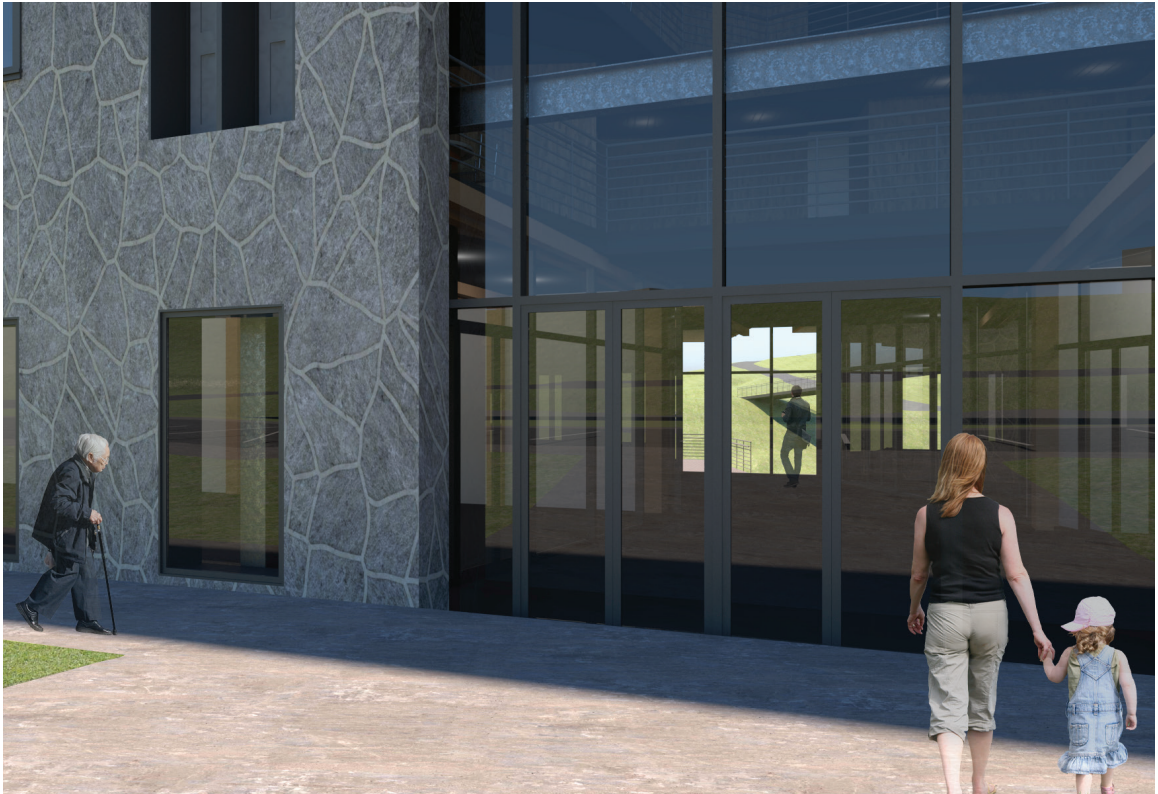


Figure 66: Main Entrance at “Cut” through Building Rendered Perspective

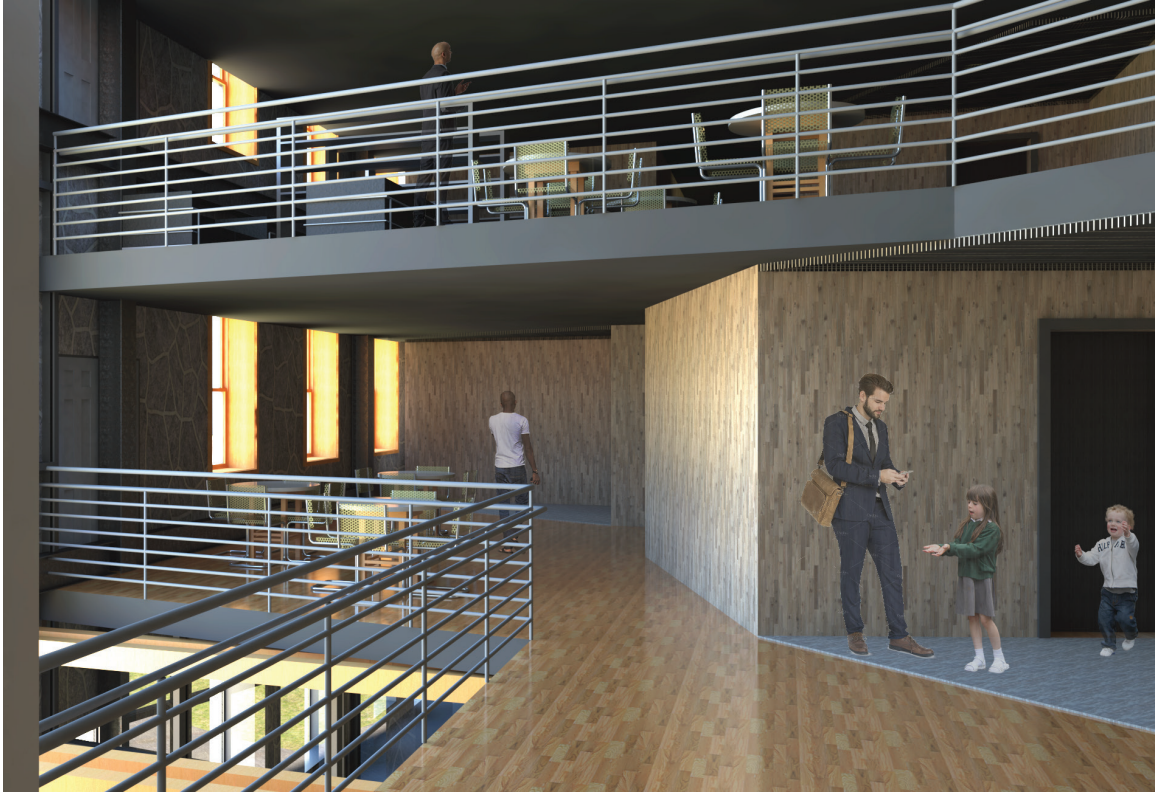


Figure 67: Second Floor Interstitial Space of Building Six Rendered Perspective



Figure 68: Living Space of a Three Bedroom Apartment Unit Rendered Perspective

CHAPTER 11

CONCLUSION & REFLECTION

When approaching real estate development projects, it is crucial to look beyond just the qualitative data, the pre-set standards, and the impulse to create one-size fits all guidelines. Creating a space that goes beyond satisfying market demands and pleasing aesthetics requires a deeper understanding of narrative architecture. In pursuing architectural design methods for developing Place, it becomes critical to balance the potential cost increase of salvaging architecture with maintaining memory and imagination of a site. The elements of Place: Characters, Setting, and Plot, that drive the creation of narrative architecture, are rooted in the built environment, but go beyond physical concerns to encompass the experience of time. The importance of choice, character, and rates of change greatly influence the experience of the built world.

One way developers can look beyond just the data and financial implications of a project is to better understand the character of the community they are proposing to build in, and to take time to fully understand the memory and imagination potential of a site. In Collinsville, previous developers have over simplified the history of the site, or ignored it completely in their proposals, and so they have fallen into the trap of erasing all connections to a very rich past, and over focus on the future. Previous development plans for the site also isolated programmatic uses into very distinct zones that segmented and limited the experience of the site, shortening both the narrative of the user experience, and potentially the lifespan of the architecture. By introducing First, Second and Third places, and mixing them across the site, choices are created for visitors and the site is fully activated. These choices, along with an adaptable architecture that embraces different story arcs and the passing of time can lead to buildings with longer life spans, which in turns leads to more memories being accumulated, which provides a rich canvas for imagining potential futures.

APPENDIX

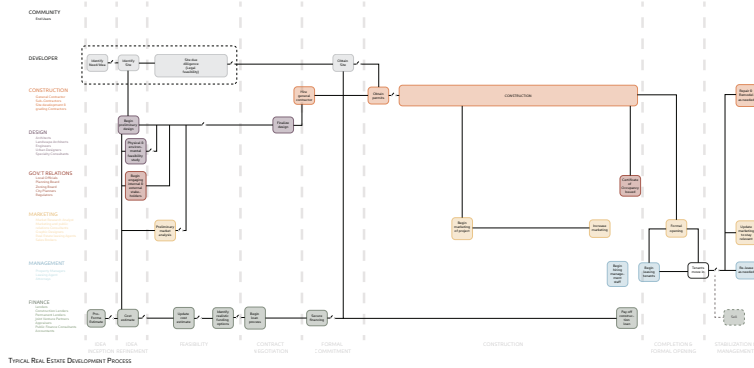
ORAL DEFENSE PRESENTATION BOARDS

(RE) DEVELOPING PLACE

Kinsey Diomed

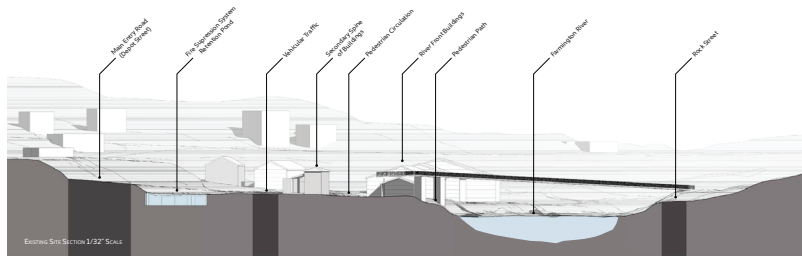
Photo: Documenta Mews and Site (Entering into Town)

ELEMENTS OF A TYPICAL REAL ESTATE DEVELOPMENT + **ELEMENTS OF A NARRATIVE** = **ELEMENTS OF PLACE**



The Former Collins Company Site - Collinsville, Connecticut

- 1826** Founded Collins Company
Wool mill, sawmill and machine shop building, factory buildings, hotel, houses
- 1846** Three Story Stone Building built
Wool mill, sawmill and machine shop building, factory buildings, hotel, houses
- 1888** Mill Burn Down, Production stopped
Wool mill, sawmill and machine shop building, factory buildings, hotel, houses
- 1955** Devastating Flood that destroyed over 80% of the factory buildings
Wool mill, sawmill and machine shop building, factory buildings, hotel, houses
- 1966** Collins Company Closes
1969 Site purchased by Thomas Perry and Wife
- 2002** James Tisey purchases site



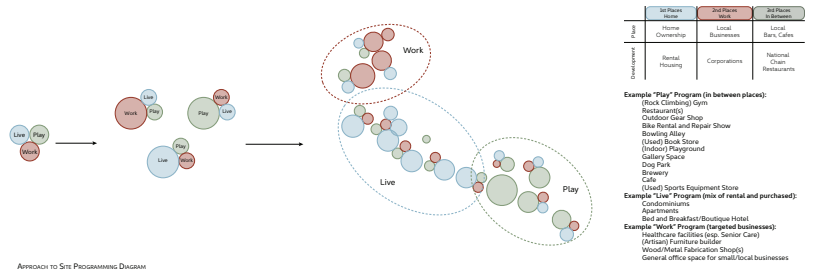
SITE ANALYSIS



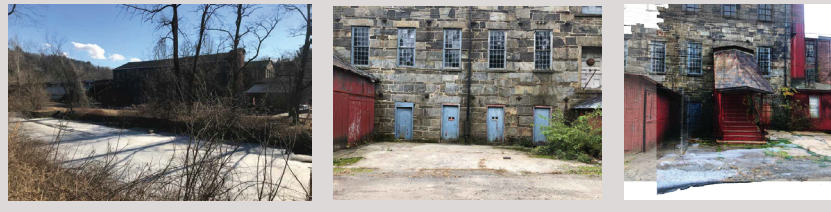
PREVIOUS MASTER PLANS



APPROACH TO SITE



ZOOMING IN - BUILDING 6 EXISTING CONDITIONS





MASTER PLAN PHASING



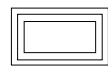
DESIGN APPROACH:



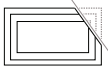
LAYERS OF ACCUMULATION



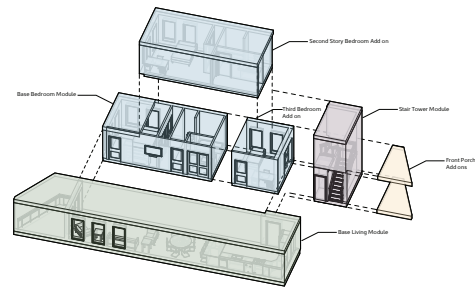
LAYERED FLOWS

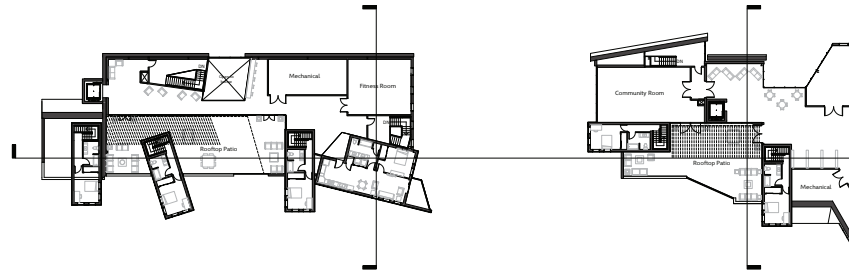


NESTED LAYERS

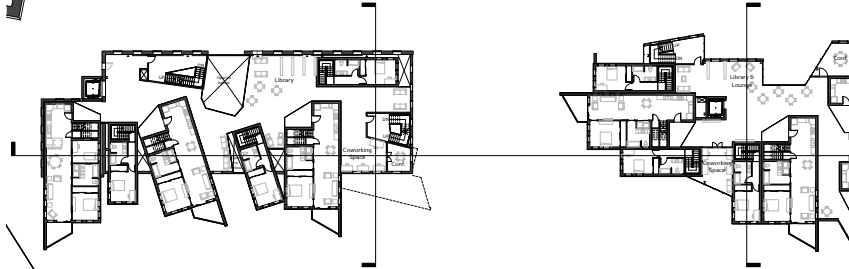


CUTTING THROUGH THE LAYERS

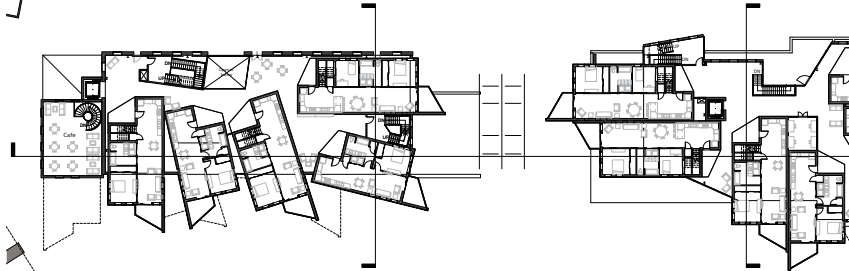




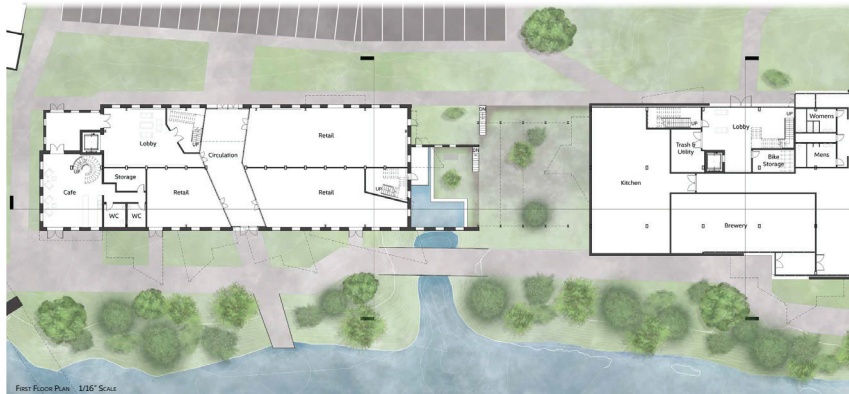
Fourth Floor Plan 1/16" Scale



Third Floor Plan 1/16" Scale



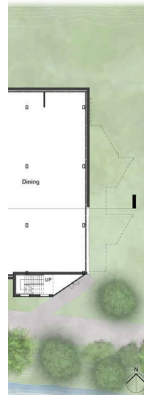
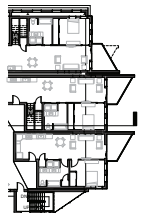
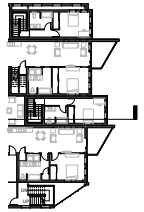
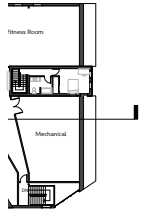
Second Floor Plan 1/16" Scale

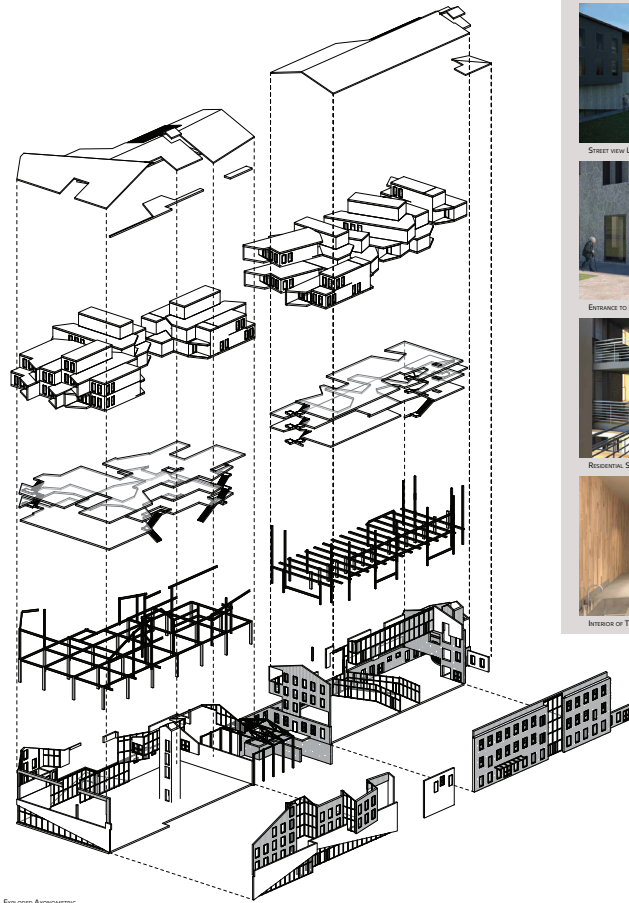


First Floor Plan 1/16" Scale



Longitudinal Section 1/8" Scale





EXPLODED AXONOMETRIC



Street view Looking Northward

Entrance to Stone Building

Residence, Second Floor Lounge Area

Interior of Timber Bedroom Unit Living Area



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