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A VISIBLE HISTORY: A SYNTHESIS OF PAST, PRESENT AND FUTURE THROUGH THE EVOCATION OF MEMORY WITHIN HISTORIC CONTEXTS

A Thesis Presented

by

NICHOLAS V JEFFWAY

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

MASTER OF ARCHITECTURE

May 2017

Architecture



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A VISIBLE HISTORY: A SYNTHESIS OF PAST, PRESENT AND FUTURE THROUGH THE EVOCATION OF MEMORY WITHIN HISTORIC CONTEXTS

A Thesis Presented

Ву

NICHOLAS V JEFFWAY

Approved as to style and content b	y:	
Kathleen Lugosch, Chair		
Max Page, Member		



Stephen Schreiber, Chair

Department of Architecture

DEDICATION

To the family, friends and educators who continually inspire, encourage and challenge me.

Thank you.



ACKNOWLEDGEMENTS

I must start by recognizing the UMass Department of Architecture, namely Kathleen Lugosch and Stephen Schreiber, for welcoming me into the program both as an undergraduate and then as a graduate student. Your vision and tireless work as leaders of the architecture department is inspiring, and I am incredibly grateful to have had the opportunity to contribute to the growing legacy of the program.

I want to thank my advisors, Max Page and Kathleen Lugosch, for their guidance, critical words and support during the entirety of my thesis project. Max, it has truly been a pleasure to work with you and get to know you through our trip to Richmond, Virginia and the thesis process this year. Thank you for always challenging and grounding me by asking 'why?' at each step of the way. Kathleen, your passion is contagious and your commitment to the education of each of your students is exemplary. I am honored to have been a part of your final thesis group. Thank you.

I want to acknowledge Joseph Krupczynski who has had a hand in my education and growth as a student, a designer and an individual since I first entered the architecture program. You taught me how to draft, how to work iteratively and most importantly how to approach a design problem with critical thought. Thank you for always being available for a critique and thank you for your honesty and intensity in those critiques.

Finally, I would like to thank my family for being my foundation throughout my education. Thank you to my parents, Bob and Celeste, and my grandparents for instilling in me the value of hard work and dedication. Thank you to my siblings, Rob, Alex, David and Mary, for always providing encouragement and support and thank you to the many friends I have made along the way.



ABSTRACT

A VISIBLE HISTORY: A SYNTHESIS OF PAST, PRESENT AND FUTURE THROUGH THE EVOCATION OF MEMORY WITHIN HISTORIC CONTEXTS

MAY 2017

NICHOLAS V JEFFWAY

BFA, University of Massachusetts Amherst
M.ARCH, University of Massachusetts Amherst
Directed by: Professor Kathleen Lugosch

How can new spaces evoke the layers of memory associated with historic places and utilize them to envision anew? What are the spatial strategies involved with creating architecture rich in memory and how can a space which is cognizant of its physical and historical context serve as a tool for revitalization?

These questions could be used to investigate revitalization efforts in much of the cities and towns which line the Connecticut River Valley. Ultimately, solutions become directly rooted in the context to which they are set.

With the industrial village of Turners Falls as the setting, this thesis is based on an evaluation of the village's contemporary and historic physical and social fabric. Through gaining an understanding of the nuanced history and memories associated with the village, a new cultural center is proposed and meant to serve as a beacon for the village's budding arts community.

The design approach uses strategies of spatial complexity, tension and ambiguity to draw connections between the past and present in an effort to create a new space which is cognizant of its contemporary and historic context. A sensitivity to siting, tectonics and materiality serve to inform design decisions. Ultimately, the new space reconnects the town back to its history of making by creating a space for renewed innovation in the arts and its siting crafts a future rooted in a harmonious relationship between the village and its waterfront along the Connecticut River.



TABLE OF CONTENTS

		Page
ACKNO	OWLEDGEMENTS	V
ABSTR	RACT	vi
LIST O	F FIGURES	ix
CHAPT	TER	
1.	INTRODUCTION	1
	1.1 Objective	2
2.	THE DYNAMICS OF MEMORY	4
	2.1 A Connection to Place	4
	2.2 Complexity as Strategy	6
	2.3 Context and Community	8
3.	PRECEDENT STUDIES	13
	3.1 Carlo Scarpa and the Castelvecchio Museum	13
	3.2 Rafael Moneo and The Museum of Roman Art	17
	3.3 Nantes, France	21
4.	TURNERS FALLS, MASSACHUSETTS	24
	4.1 Historic Evaluation	24
	4.1.1 Geographic Context	24
	4.1.2 Pre-1676	25
	4.1.3 May 19, 1676	26
	4.1.4 Industrialization	27
	4.1.5 Town Life	34



	4.1.6 Shifting Tides	36
	4.2 Evaluation of Contemporary Times	37
	4.2.1 Connection to Region	37
	4.2.2 Demographics	38
	4.2.3 Employment	39
	4.2.4 Current Zoning and Land Use	40
	4.2.5 Property Ownership and Building Use	42
	4.2.6 Vacant and Under-utilized Parcels	44
	4.2.7 Housing	46
	4.2.8 Cultural Initiatives	47
	4.2.9 Current Spatial and Experiential Dynamics	55
5.	FIRST STREET CULTURAL CENTER	58
	5.1 Stakeholders	58
	5.2 Site Selection	60
	5.3 Site Analysis	68
	5.4 Program Analysis	71
	5.5 Conceptual Development	76
	5.6 Final Resolution	81
6.	CONCLUSION	90
	APPENDIX: ORAL DEFENSE PRESENTATION BOARDS	92



LIST OF FIGURES

Figure	Page
1. Trinity Church visible in the mirrored Facade of the Hancock Tower	10
2. A concrete form protrudes out of the historic space to mark the entrance into the Castelvecchio	14
3. A soft light washes across the finely preserved gallery walls	15
4. A view revealing Scarpa's use of subtraction as a strategy to craft moments	16
5. A view on the ground level of the relationship between the modern brick, arches and artifact	18
6. Floor plan of the Crypt Level	19
7. One of the many installation interventions which engage the public in Nantes, France	21
8. Installation by HeHe: An electricity pylon found within the moat of a 14 th century castle in Nantes	23
9. The Great Falls at Turners Falls (c. 1700)	24
10. Original Montague Canal	28
11. Original village plan (top) and a revised plan (bottom)	30
12. Illustration of the Montague Paper Mills (top) and the Russell Cutlery Works (bottom)	33
13. Map of Contemporary Zoning By-laws of Downtown Turners Falls	41
14. Vacant and under-utilized parcels in Turners Falls	45
15. Cultural mapping of Turners Falls	48
16. A visible dichotomy of experience and spatial quality above and below the Turners Falls Dam	56
17. Aerial view of the Power Island	63
18. View of the west side of the Power Island Mill	63
19. Aerial view of 53 Avenue A	65
20. Aerial view of First Street Site	67
21. Historic and contemporary bridges in Turners Falls	69
22. First Street Cultural Center Program	72
23. Linear relationship between main programmatic elements	73
24. Programming Diagrams	74
25. Parti model which seeks to capture the material quality of Turners Falls	77
26.Parti model which expresses the response to site and structural relationship	79
27. Site Plan of the First Street Cultural Center	83
28. Perspective from the Sculpture Park	84
29. Interior Perspective along the Bridge	85
30. Ground Floor Plan	87
31. Section A revealing the makerspace, artist studios and third floor lounge	88
32. Longitudinal section revealing the relationship between the three main programmatic space	88



CHAPTER 1

INTRODUCTION

"The rules are simple, for there are none. Every case is unique, every situation different.

Precedent is an unreliable guide, judgment more important than justice, quality than

period. Respect for architectural neighbors means more than the meaningless pleasantry.

There are occasions for the quick return, the wise-crack, the spirited exchange between

individuals..."

individuals..."

- Sir Hugh Casson

The conversation between historic and new spaces is one which designers must engage with in increasing frequency. Indeed, a report of the ACSA suggests that over half of all work undertaken by architects involves designing with existing buildings. Unfortunately, all too often new architecture either fails to capitalize on the opportunity to confidently image the new in a historic environment, or, on the other hand, intrudes with interventions that fail to forge important connections with the past. I offer the building blocks of a strategy which uses a deep understanding of the unique social and physical history of a place in order to synthesize past, present and future and help to bring meaningful change to struggling communities.

With the industrial village of Turners Falls as the setting, this project is based on an evaluation of the existing tectonic, material and contextual relationship of historic

¹ Sir Hugh Casson, 'Old sites and new buildings: the architect's point of view'. *The Future of the Past,* Thames Hudson, 1976.



spaces. Only then did I begin to design a new cultural space which is aimed at reestablishing a tradition of making in Turners Falls.

I have designed a new building in a site that is linked to the historic buildings of Turners Falls' industrial past, but also reconnects the village to its even deeper roots as a waterfront town on the Connecticut River.

The building is divided into three distinct, smaller volumes by a series of robust structural walls in response to the scale of adjacent buildings. Arranged in a north-south manner, these primary organizing members are comprised of reclaimed brick and encapsulate the layers of texture and memory of an industrial past. They form narrow vertical spaces reminiscent of the alleys and intriguing interstitial spaces with the village streets. Running transversely is a pathway composed of exposed steel and glass which bridges the three main programmatic functions of the space. Materially, it evokes the series of bridges within the village and crafts a conversation between the historic and new. Through this harmony, the building becomes a place for renewed innovation in the arts by making visible a kinetic place of artistic and educational engagement.

1.1 Objectives

This thesis is used as an investigative tool into the relationship between new spaces and the historic contexts in which they are set. The following document is divided into three main sections which establish a body of relevant research to which a theoretical project is informed by and tested against.



The first section, *The Dynamics of Memory*, is an investigation which explores the important connection between the human body, memory and spatial constructs when building anew. Critical analysis of relevant literature and evaluations of precedent studies establish this connection as paramount when designing spaces which are not only architecturally cognizant of their surroundings and relevant to contextual needs of a given community but also leverage associations with the history of a place as a tool for revitalization.

The second section, *Turners Falls, Massachusetts*, introduces the setting to which an architectural response is enacted. A rigorous investigation is performed in order to establish an understanding of the intricate physical and social history of the village. Research of the evolution of the village over time and an analysis of the contemporary context is used to inform decisions made during the design process. Interviews, analysis of pertinent data and literature and photographic documentation all stand as strategies used in gaining an accurate and authentic understanding of place.

The final section, *First Street Cultural Center*, is the architectural response informed by a culmination of the body research developed in the previous two sections. Considerations of proper siting, tectonics and materiality were used as strategic drivers of a new space which reinvigorates a history of making in the village and establishes a new connection to the waterfront along the Connecticut River. The final resolution is meant to serve as a catalyst for further development in the village and serve as a meter of contextually sensitive design to which a new future can be forged in a budding cultural community.



CHAPTER 2

THE DYNAMICS OF MEMORY

2.1 A Connection to Place

There is an inherent relationship between the mind, body and the spaces we occupy. It is a relationship which begins to develop at the very onset of an individual's development. In *Body, Memory, and Architecture* by Kent C. Bloomer and Charles W. Moore, the relationship between humans, cognition and space is presented as essential to the development of self-awareness.

The first time we gather the strength to stand upright, we begin to perceive things as up, down, left or right. We develop associations and attitudes towards this sense of directionality both physically and metaphorically. Bloomer and Moore remark, "In our minds left and right soon become distinguished from each other in quality as well as in direction..." Our understanding of space and context relate to both an understanding of our individual position within space but also connotations associated with being in a particular place at a particular time. This notion forges a deeper relationship between the body and space and the cognitive action of the mind derives meaning from the two. This underlying narrative between occupying a space and the deeper meaning of our position within a particular context is the root of self-awareness. In turn, the mind, body and space become intrinsically linked.

² Moore, Charles W. Charles Willard, and Kent C. Bloomer. *Body, Memory, and Architecture*. Yale UP, New Haven, Conn., 1977. Print. 1.



4

In addition to the understanding of directionality as central to self-awareness, Bloomer and Moore develop a connection between the traditional, single-family home and its effects on our development of self-awareness. The house's free-standing nature marks it as an individual and metaphorically stands as an intriguing reflection of the human body. Bloomer and Moore state that the single-family home is the embodiment of "our sense of ourselves extended beyond the boundaries of our bodies to the world around."3 The standard home was designed with the qualities found within our own spirit and serves to both reinforce and embody the human condition.

It holds gestures of up and down through the attic and chimney and basement below. The façade contains windows and a single door reminiscent of the eyes and mouth found on the human face. Often times, in houses of high stature, the front will contain details by the builder which allude to details and quality of space found within. This relationship is similar to the one between the human face and the inner emotions it so often serves to reveal.

Within the home, the connection between the mind, body and the space we occupy continue. Central to the traditional home is the hearth. Regardless of whether it serves as the actual source of heat for the home or not, it provides a central gathering space and is a personification of the human heart. A force of centrality and warmth. In contrast to the hearth, the removed nature of the attic and the basement embody space of wonder and fantasy. A connotation between up and down is developed. Most often the idea of down, the basement, carries a negative connotation where as the attic, the embodiment of up, stands as a place less fearful.

³ Ibid., 1. **الڭ** للاستشارات

2.2 Complexity as Strategy

The traditional home is used as an example of a space which is both responsive to the human condition and challenges the individual to develop an understanding of self through a spatial context. Spaces which challenge one's sense of self engage the user in a cognitive experience. Individuals use associations from past experiences, or memories, to discern an understanding of space. This cognitive process yields new associations and memories. Spaces which engage and challenge the individual stand as paramount in crafting experiences rooted in memory.

There is a relationship between the body, space and memory. Bloomer and Moore analyze this notion of memory and state, "To at least some extent every real place can be remembered, partly because it is unique, but partly because it has affected our bodies and generated enough associations to hold it in our personal worlds." In this sense, memorable spaces do something to evoke an emotional and sensory response. These associations are derived from spaces which engage the individual through complexity and tension.

A work of art can have a similar effect on its subject. Peter Zumthor, in his text *Thinking Architecture* builds off this idea. He states, "Works or objects of art that move us are multifaceted; they have numerous and perhaps endless layers of meaning that overlap and interweave and that change as we change our angle of observation." If it is the ultimate goal of an artists to stir something inside of the viewer, Zumthor offers the idea that works

⁵ Zumthor, Peter. *Thinking Architecture*. Basel: Birkhauser, 2015. Print. 30.



⁴ Ibid., 106.

most successful in doing so are ones that are dynamic and hold an inherent complexity within them. This internal struggle to understand brought forth by an intrinsic complexity activates the mind and crafts new memories.

Richard Serra, an artist who came into prominence during the latter half of the twentieth century, works primarily as a sculptor using scale, materiality and context to engage the viewer and change their perception of space. He too comments on the relationship between complexity and memory. In the text, *Richard Serra*, the artist states, "In such cases the artist is not concerned with the balancing of contrasts, but much more with the radicalization of such contrasts in a way which propels them to utmost clarity." Serra progresses this claim and offers the notion that clarity in a work can be found not through a balance of contrast but rather through heightening and setting two opposing forces against each other.

Architecturally, Bloomer and Moore describe the narrative developed between opposing forces as a choreography of collision. They state, "The special, immaculate collision, in which building or landscape pieces come sharply up against one another without loss of their individual identities or spirit, is especially important in the making of memorable places." Consequently, memorable places are those which offer multiple and continuous readings. They hold in them an inherent tension and complexity which establishes a connection not just to the visual sense but of the broader senses to which one experiences

⁶ Serra, Richard, Ernst-Gerhard Gulse, and Jean Christophe. Ammann. *Richard Serra*. Stuttgart: G. Hatje, 1987. Print. 10.

⁷ Moore, Charles W. Charles Willard, and Kent C. Bloomer. *Body, Memory, and Architecture*. Yale UP, New Haven, Conn., 1977. Print. 106.



a place. Memorable spaces capture ambiguity which in turn allows for the experiences of the individual to be related to the space.

In being ambiguous, the individual can project their own sense of function and understanding. There stands an opportunity for exploration of meaning and narrative by the individual which in turn challenges and engages them. By engaging an individual, their senses are activated to derive meaning. Through this cognitive process, a myriad of past encounters and experiences are brought to the forefront of the individual's mind which both evokes memories and develops new ones.

2.3 Context and Community

"Any intervention is judged in the present by the degree to which it amends the historic context and it will be judged in the future by the total quality of the amended result." 8

- John Warren

While the memory of historic spaces effect the human psyche on a deeply personal and individual level; the contemporary process in conservation, design and building anew in historic contexts crafts a conversation between entire communities. This is rooted in the power that interventions can have on the future of an area and a community. John Warren, editor of *Context: New Buildings in Historic Settings*, offers insight into the complexities and open-ended nature found in building anew in historic areas.

⁸ Warren, John, John Worthington, and Sue Taylor. *Context: New Buildings in Historic Settings*. Oxford: Architectural, 1998. Print.



8

Warren offers an account of how the evolution of historic structures often move from an owner, to an heir and then to becoming civic spaces. Individual buildings become part of a larger historic context to which society dwells within in.

In this way, society develops a stake in the historic structures which make up a context. Historic buildings evolve over time and eventually lead to the necessity for interventions. The moment in time when decisions are made as to the severity of interventions functions as the design process in the present. However, in looking towards the future, eventually those interventions become historic. Foresight and what John Warren describes as "future judgement" is necessary as a design strategy when envisioning the future of historic places.

Conversations surrounding building anew in historic contexts are often the most nuanced and intense because of the ripple effect an intervention can create. Designers must be cognizant of the power in the decisions made. If an intervention is too progressive, it has the potential to disrupt the historic context in a negative way. However, if it is not ambitious enough, it will only reinforce the historic quality and not serve as the agent of change necessary to push society forward. An attitude towards change must be discerned but one rooted in a deep understanding of history and contemporary times. Spencer de Grey of Fosters and Partners describes the process for inspiration when designing in a historic context as not of a "sudden flash" but rather "a careful, methodical, scientific, step-by-step" approach. This calculated approach entails considerations regarding the background of a place, details of the existing condition and how those factors affect the

⁹ Ibid., 12.

¹⁰ Ibid., 144.

layers of history of a place. This is balanced against the exact needs and context of the project.

Buildings have the potential to create change within the context they are set. Their size, shape and materiality have influence on defining a particular place and on the legacy of design decisions in the future. Warren states, "Building themselves exert environmental pressures by their very existence." This internal force, though not tangible, certainly exists.

The John Hancock Tower, designed by IM Pei & Partners, in Boston, Massachusetts stands as an example of an architectural reaction to such forces. The tower, which has been the tallest building in New England since its completion in 1976, is minimalist in design. Formally, it is a parallelogram. Materially, it is a sleek, glass mirror nearly the same shade



Figure 1: Trinity Church visible in the mirrored façade of the Hancock Tower



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of blue as the Boston sky. Most importantly however, is that contextually it stands adjacent to a prominent national historic landmark being Trinity Church. Designated as a National Historic Landmark in 1970; Trinity Church was designed by HH Richardson and completed 101 years prior to the John Hancock Tower in 1877. A robust structure situated in Copley Square set up intriguing constraints for the designer of the Hancock. IM Pei & Associates devised a design which is incredibly simply at first glance but quite dynamic in terms of contextual response. Its sleek, crystalline façade offers stark contrast to the historic context. However, the façade is comprised of mirrored glass (Figure 1) which diminishes the presence of the tower within the context. Instead, it offers an inverse perspective of the historic Trinity Church and the surrounding Copley Square. The existing site forces brought on by Trinity Church caused the existing building to take a stand and respond in a particular manner. Quite often, a decision must be made when building anew in a historic context as to whether the new structure will amplify or diminish its context. The John Hancock Tower accomplishes both in a respectful and forward-looking manner.

Regardless of the degree of change that a building brings to an area, Warren notes the importance of amelioration in the evolution of a new space. He defines amelioration as "the growing acceptability of a design when once established on the ground." ¹² Amelioration gets at the very heart of the complexities of building in historic contexts. The process is one which effects an entire community and different individuals react to change in different degrees. The decisions ultimately lie in the designer's hands though their ideas can be countered and swayed by public opinion. People have an attachment to spaces

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¹² Ibid., 15.

which hold in them a visible history. New spaces can alter the memory of places which hold cultural importance to individuals and communities as a whole. However, amelioration says that there always becomes an associated affection towards objects that exist and that often times negative opinion is just part of the acclimation process.



CHAPTER 3

PRECEDENT STUDIES

3.1 Carlo Scarpa and the Castelvecchio Museum

Carlo Scarpa, born in 1906, was a designer whose work fundamentally changed the way in which contemporary architecture engages with its historical context. Scarpa rarely built anything that was entirely new but the way in which he transformed the existing fabric reinvented the idea of restoration, preservation and building anew within the bounds of existing structures. His tireless attention to detail and craft fundamentally transformed historical architecture preservation and renovation. Scarpa held a unique ability to straddle both the ancient and modern world with incredible grace. By doing so, he served as a bridge between the past and present. He did so by designing works that engaged and transformed their respective place.

During his lifetime, he managed to change the very fabric of the ancient city to which he was born in by weaving new spatial conceptions into the existing architectural infrastructure. Through his work, he reestablished the lost crafts of the Veneto by integrating traditional building methods and materials into his work. He simultaneously integrated new ideas about structure, construction and materials within historical contexts.

Scarpa brought the architectural detail to life as a defining method of establishing an order with a space. He used the detail to communicate the broader goals and conception at play



in each work. Time also served as a common thread in his work. He used time as a binding factor to communicate the conversation being developed between the past, present and future of a given space.

Scarpa's work at the Castelvecchio Museum stands as one of his most formidable projects.

He began working on the museum in 1957 which served as the beginning of an eighteen year endeavor. The castle was built to its current dimensions in 1354 to serve as a fortress

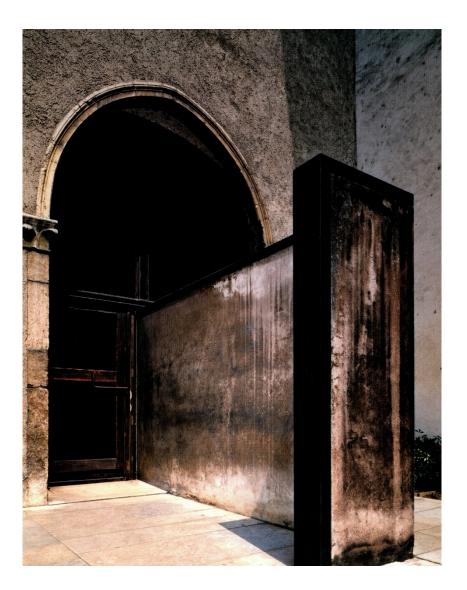


Figure 2: A concrete form protrudes out of the historic space to mark the entrance into the Castelvecchio



for protection of the Scaligeri family who stood as the ruling nobility at the time. It is located on the southern bank of the Adige River. Battlements and walls faced the city as a preventive measure for the family during uprisings in the city.

Scarpa stood "committed to the existing building as a source of value to be explored, understood and developed." His process and design work was responsible for



Figure 3: A soft light washes across the finely preserved gallery walls

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¹³ Byard, Paul Spencer. *The Architecture of Additions: Design and Regulation*. New York: W.W. Norton, 2005. Print. 28.

establishing the use of the Modernist embrace of abstraction to develop new meanings for restoration and evaluation of existing buildings. His approach was both a subtle and aggressive one. Existing space is not just a part of the composition but instead a vital component used to control the outcome of the new space. The final work becomes a

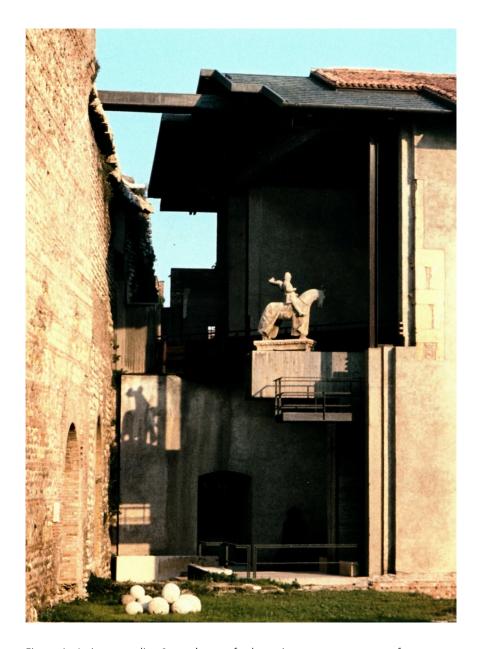


Figure 4: A view revealing Scarpa's use of subtraction as a strategy to craft moments

collaboration of experience between the existing and the new. Throughout the project, Scarps employs a variety of methodologies within the museum. He worked with previous renovations, cut away sections of the historical portions and he built anew within the spaces.

As a result, the space becomes a conversation about the push and pull between its old and new identity. The entrance is marked by an extruded, concrete mass (Figure 2) which implies an extension into the interior and stands as commentary to the idea of solidity, mass and strength of the existing space. Inside, Scarpa mines a rhythm of vaulted spaces filled with soft and diffuse light as visible in Figure 3. Openings are marked by gates which convey a sense of protection for the precious objects within and serve as a communication between the buildings original function as a fortress.

The literal action of cutting away (Figure 4) served as a powerful tool for Scarpa. In reference to existing space, He "mines it...for space and meaning." ¹⁴ In turn, renewed space is developed not through the addition of material but instead through the art of subtraction. Through the cutting away of the existing in a particular manner, the old is removed to make way for a new life within the spaces.

3.2 Rafael Moneo and the Museum of Roman Art

Rafael Moneo, born in 1937, is a Spanish architect whose work masterfully mediates the balance between experience, context and history of place. The Pritzker Architecture Prize recipient of 1996 is an architect with a concern for crafting spaces which contain sensitivity



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Figure 5: A view on the ground level of the relationship between the modern brick, arches and artifact

to contextual narratives to which his projects build upon and react to. Architect and critic Robert Campbell, in an article for The Boston Globe, explains that "A Moneo building creates an awareness of the time by remembering its antecedents. It then layers this memory against its mission in the contemporary world." ¹⁵ Campbell's statement speaks to Moneo's unique ability to craft a space rooted in memory and history but which also stands particular to the present time in which it is built.

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¹⁵ Campbell, Robert. "Jury Citation." *Jury Citation: Rafael Moneo | The Pritzker Architecture Prize.* The Hyatt Foundation / The Pritzker Architecture Prize, Web. 21 Feb. 2017. http://www.pritzkerprize.com/1996/essay. 1.

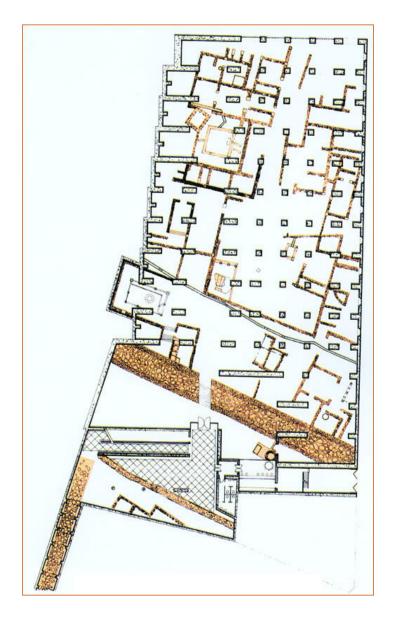


Figure 6: Floor plan of the Crypt Level

One of his most lauded works, the National Museum of Roman Art, is a strong embodiment of the ethos of Moneo's work. The building opened in 1986 and replaced a museum completed in 1838 on the site. Contextually, the museum is located in Merida, Spain which is one of the most well preserved Roman cities. The National Museum of Roman Art is located next to the Roman Theater of Merida, a highly regarded ancient theater space, and the building stands on top of an excavation site of the old Roman city.



The museum is organized by a number of semi-circular arches comprised of striking and finely crafted brickwork. The arch is one of the seminal achievements of Roman civilization and Moneo is adept to use it as the primary organizing member for the museum. In doing so, an immediate connection is made between the history and culture that the museum presents and the space itself. Figure 5 shows the relationship between the arches, space and the artifacts on display. Moneo handles the roof in a way which reinforces the beauty of the procession of brick walls. Instead of a heavy and opaque roof, he instead uses glass which allows warm light to wash into the space and over the walls.

Figure 6, the floor plan of the 'crypt', reveals the relationship between the new space and the remains of a part of the Roman city. The crypt is an area below the ground floor plan which brings visitors into the excavation site. Visible in the plan are the footprints of a high density of arches which define the space. The structure is set against the traces of ruins but stand in dialogue with them.

Moneo crafts a space which heightens one's awareness of time and place. Campbell states the brick walls function as "a memory, not a replication." ¹⁶ This speaks to the incredible ability of Moneo to create spaces which bind the present to important historical narratives in a manner which is incredibly reserved and powerful. The building conveys a certain honesty through its materiality and feels as if it is far older than it actually is. In doing so, Moneo crafts an experience in which new and old merge to form one cohesive environment.

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Figure 7: One of the many installation interventions which engage the public in Nantes, France

3.3 Nantes, France

The City of Nantes serves as a holistic example of the impact that the fostering of art and culture can play on the revitalization of a community. Nantes is located in the west of France along the Loire River. Due to its geographic sighting, it was once home to a large shipbuilding industry. The city was bombed heavily by allied forces in 1943 during World War II. Due to substantial damage, the historic shipbuilding yards eventually closed in turn damaging the cities identity and economy.

Jean Blaise, the city's visionary leader, arrived in Nantes during the late 1980's and remarked that the city was culturally dead upon arrival. However, Blaise, in coordination with Mayor Jean-Marc Ayrault stood determined to create transformation within the city and worked to create culture wherever they could. In the beginning, the events they



created were all made free and were staged outdoors or in public spaces with the belief that in doing so, they would be able to reach a larger portion of the population.

Les Allumees was one of the notable initial efforts. Les Allumees was a festival which brought artists from different major cities to used the entirety of the city as their canvas. As a result, events and installations happened on bridges, in industrial sites and within private apartments. The events were hosted six consecutive nights starting at 6pm and ending at 6am. On each night at 2am, festival-goers would gather in a large vacant industrial lot for live music and drinks.

An important detail in the planning of the multi-year festival was that it was announced at the onset that it would only last six years. As a result, the festival and the events occurring at it had an imbedded temporality and preciousness which contributed to the excitement of the event. The event was instrumental in setting precedent for establishing forgotten industrial spaces as prime areas for art, music and theater.

Blaise has continued to host events and festivals which has cemented Nantes as a special city for culture, community and arts. Estuarie, started in 2007, was another initiative established by Blaise and lasted six years. The project left a trail of permanent art by French and international artists. The artists trail runs along sixty kilometers of the Loire River and is comprised of twenty-nine artworks. It is meant to engage travelers along the river who may be traveling by foot, car, bike or boat and calls attention to the ecological as well as the phenomenological aspects of the river.

Blaise's most recent endeavor, Le Voyage a Nantes, was a summer festival initiated in 2011.

Its wild success continued the tradition of an influx in lasting art, sculpture and





Figure 8: Installation by HeHe: An electricity pylon found within the moat of a 14th century castle in Nantes

architectural interventions and was eventually incorporated as a municipal body. Le Voyage a Nantes is now the driving force behind culture and tourism in the city serving as the primary programming and logistical body behind the city's thriving creative community.

Nantes has been deemed one of the fastest growing cities in France. Le Voyage a Nantes spends roughly three million euro on festivals annually with monetary returns estimated at 48.8 million euro. Additionally, the city attracts 615,000 visitors annually with 15 percent of people coming from neighboring European countries. An influx of six to nine thousand people move to Nantes annually and unemployment remains consistently lower than the national average. Blaise and his team have created a city where culture is fundamental to everyday life and place which could not survive without it.



CHAPTER 4

TURNERS FALLS, MASSACHUSETTS

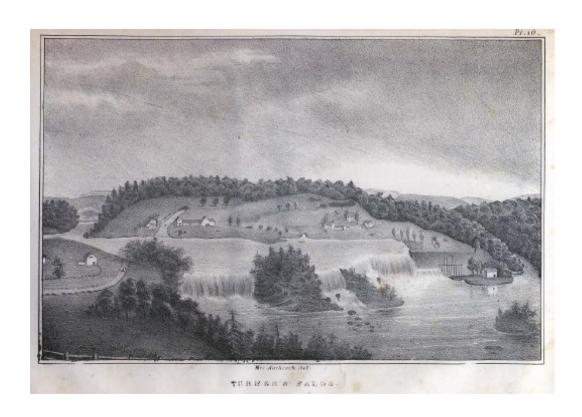


Figure 9: The Great Falls at Turners Falls (c. 1700)

4.1 Historic Evaluation

4.1.1 Geographic Context

The geographic characteristics of Turners Falls is largely defined by its adjacency to the Connecticut River. The river stands as the residual effect of a receding glacier which had once encapsulated the entire northeast United States and carved valley and channels into the earth as it dissipated. The river winds its way from the northern edge of Vermont,



through the entirety of Massachusetts and Connecticut eventually emptying into Long Island Sound. The Connecticut River fostered homes for an abundance of wildlife, some unique to the region and ecological environment the river has crafted, long before any group of people had realized its beauty and power for settlement. The presence of prehistoric creatures is visible through markings of footprints and fossils if one knows where to look.

Long before the river was tamed by dams and flood walls, natural ebbs and flows from snowmelt and rainfall caused the river to expand and contract in turn depositing bountiful amounts of fertile silt on the lowlands. This condition created an area which was ripe for vegetation and in turn agriculture by native people of the region. The river's defining feature at the site of what was eventually settled as Turners Falls is the Great Falls which stands one of the largest waterfalls found on the Connecticut.

4.1.2 Pre-1676

The area of the Great Falls was known as Peskeompskut by natives and served as home of the Pocomtuc confederacy for over 10,000 years.¹⁷ The natural dam which had formed at the bend in the Connecticut River was home to a variety of fish including shad, alewife, salmon and eels who swam up river and over the dam to spawn. The abundance of fish, fertile soil, serene setting and robust ecological features established the Great Falls as a meeting place for natives during the spring season.

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¹⁷ Dodson & Flinker, Landscape Architects and Planners, Howard/Stein-Hudson Associates. Downtown Turners Falls Livability Plan. 2013. 12.

It was an important place of exchange for both the wildlife which lived there and the natives who gathered along the shores during the spring months. The area served as an important neutral ground where alliances were renewed amongst neighboring communities. The fertile soil and abundant wildlife made it a valuable resource for agriculture and fishing.¹⁸

4.1.3 May 19, 1676

May 19, 1676 would stand as a day of great tragedy and transformation for the area surrounding the 'Great Falls'. Prior to this day, the area remained as a neutral ground between groups of natives as well as English settlers who occupied the lands along the Connecticut. Tension and peace came and went between the groups, but eventually the northern English settlers would seize the land at the Great Falls from the natives in a brutal attack.

On May 19, 1676 Captain William Turner, for whom the village of Turners Falls would later be named for, led a surprise attack on the Pocomtuc Indians who were living along the banks of the Great Falls. Turner, a leader of the northern area of English settlement along the Connecticut, had grown concerned that large groups of natives were gathering at the Great Falls in preparation for an attack on the English. In response to such suspicions and mounting tensions, Captain Turner assembled a group of one hundred and sixty men in Hatfield on May 18th, 1676. The group of men traveled north through the night and

¹⁸ Dr. Kevin McBride. "Battle of Great Falls / Wissatinnewag-Peskeompskut" Department of the Interior. April 2016



eventually gathered along the northwest corner of the Great Falls in preparation for a surprise attack at daybreak.

The English settlers moved to point-blank range without being noticed and executed the surprise attack. At the time, many of the men and native soldiers were away from the settlement leaving women and children vulnerable. The natives were forced to retreat into the water where many were swept away and over the Great Falls.²⁰

Eventually, the natives were able to regroup and force the English into retreat. It is estimated that as many as two hundred natives were killed that day as well as a large number of English including Captain William Turner as he retreated across the Green River Ford.²¹

4.1.4 Industrialization

Nearly one hundred years after the "Falls Fight", a group of men titled the Proprietors of the Upper Locks and Canals carried out a plan to establish a canal at the location of the Great Falls in an effort to allow river traffic to bypass the Great Falls. In 1794, permission was granted to the group and in the years to follow a dam, canal and a series of locks were constructed. The canal was two and a half miles long and twenty feet wide. It consisted of ten locks which connected the canal to the Connecticut River. ²² The first toll was collected in October of 1800, and the system served as another piece in establishing the Connecticut

²¹ Ibid., 30.

²² Dodson & Flinker, Landscape Architects and Planners, Howard/Stein-Hudson Associates. Downtown Turners Falls Livability Plan. 2013. 12.



²⁰ Ibid., 29.

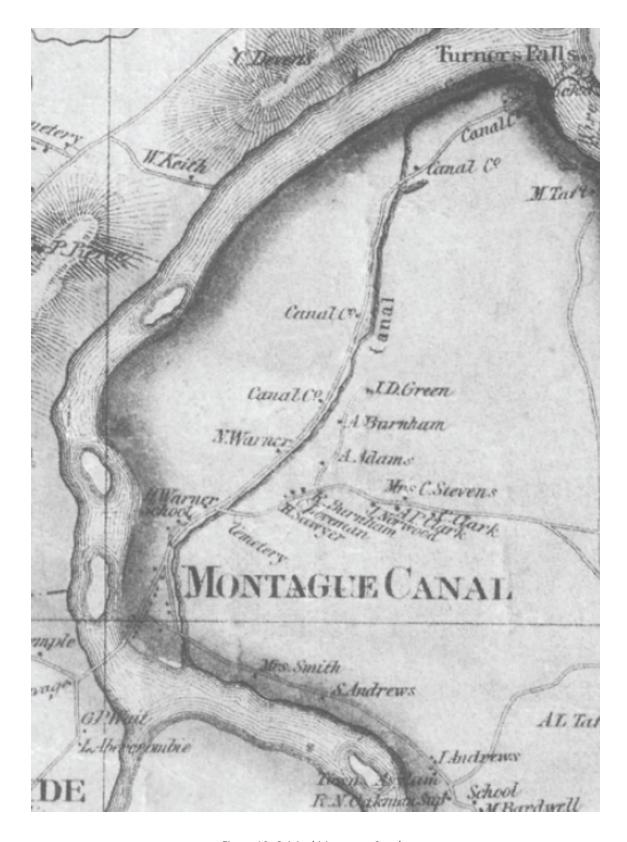


Figure 10: Original Montague Canal

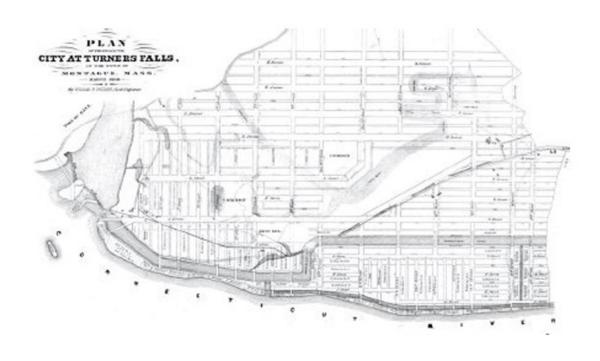
River as a major transportation route which could be navigated by boat from Long Island Sound to Northern Vermont.

However, due to the establishment of the railroad system during the beginning of the 1800's, the use of the Connecticut River as a means of trade and transportation began to decline in the coming decades. As a result, the final boat passed through the locks in 1856. A map (Figure 10) shows the location of the original canal with the highest density of development around Montague City which was located along the southern fringes of contemporary downtown Turners Falls.²³ However, the make-up of the area would soon change. This change was driven by the onset of the railroad as the primary means of trade and movement of goods. In turn, the Connecticut River's potential as a catalyst for industrialization had been realized by savvy business men.

Holyoke, Massachusetts was a prime example of such potential for industrialization in Western Massachusetts and the United States and served as inspiration for Colonel Alvah Crocker who is cited as the visionary behind the rise of Turners Falls. Holyoke, coined 'The Paper City' was established fifteen years prior to the realization of Turners Falls in 1864. The city was an industrial empire equipped with large-scale mills and factories, a canal system and well-established neighborhoods of tenements which served as worker housing. Colonel Alvah Crocker, a post-Civil War industrialist, in accompaniment with the clerk of the Proprietors of the Upper Locks and Canals, Wendell Davis, changed the name and

²³ Ibid., 12.

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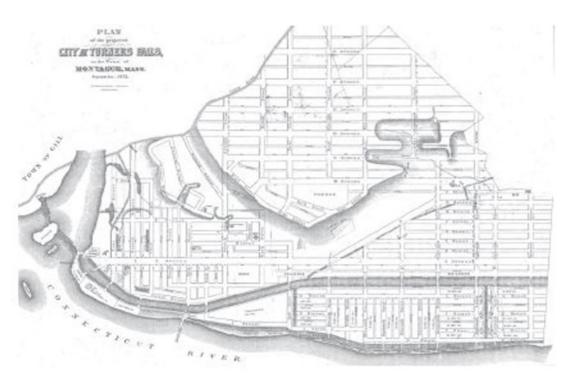


Figure 11: Original village plan (top) and a revised plan (bottom)

mission of the Proprietors to The Turners Falls Company in anticipation of his industrial endeavors. With a new identity, Colonel Crocker worked to gather the necessary financial backing and recruited leading engineers and designers to help realize his vision of Turners Falls.

Similar to Holyoke, a grid of streets was laid out across the area with entertainment and commerce located centrally on Avenue A. The northwest quadrant which lined the Connecticut River was deemed the industrial area and worker-housing sprang up throughout the town. The most integral piece however was the power canal. The original town plan (Figure 11) consisted of a power canal which included two right angle turns and two large town commons. ²⁴ The essential component was a new crib dam made of wood and stone. The existing canal was rebuilt and Crocker was able to quickly attract leading manufacturing companies to the area.

A revised plan of the city (Figure 11) was created which adjusted the grid of streets to account for the steep hill in the south portion of downtown. Additionally, the reissued plan eliminated the two right angles of the canal. The city plan which was realized largely reflects this city plan though the town was never built to quite the extents as drawn.²⁵

Amongst the industrial companies which invested in Turners Falls was The J. Russell Cutlery, Keith Paper Co., Esleeck Paper Co. and the Griswold Cotton Mill. With the onset of the industrial town, the mills (Figure 12) attracted a diverse demographic of immigrants

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²⁴ Ibid., 12.

²⁵ Ibid., 13.

including German, French Canadian, Polish, Italian, Lithuanian and Irish. Although the blue-collar life led by mill workers was often extremely taxing, the sense of community found instilled a certain pride and empowerment. At the peak, the mills employed an estimated 1,500 people and thrived from 1868 to 1940.

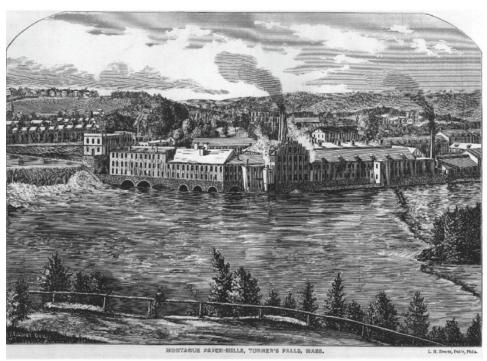
J. Russell Cutlery stood as the first official company to purchase water rights along the canal and established 160,000 square foot mill. The mill opened in 1868 and housed 1200 workers. At the time, it set precedent for the modern manufacturing method in America and was exemplary in terms ventilation and air quality through its ability to draw stone and dust outside through flues and air ducts. Additionally, J. Russell Cutlery built the Cutlery Block which provided housing for its workers. The three-story apartment block was a dynamic place and accounts by locals mark it as a neighborhood block which

functioned as a large family. Residents could be seen in the summer months sitting outside on their porches chatting about the latest town news.

The Keith Paper Company, abbreviated K.P. Co., was built in 1871. It burnt down in 1876 but was immediately rebuilt. Similar to J. Russell Cutlery, the mill was part of a larger construct which included the Keith Apartment Block. The housing block accompanied the mill by providing clean, new apartments for its workers. Rent was deducted from the employees' earning and offered a sense of community in addition to close proximity to the mill. The company was open as K.P. Co. until 1963 when it was purchased by Strathmore Paper and stood as Turners Falls longest running mill. It eventually closed in 1994.



The Griswold Cotton Mill was noted as the most modern mill at the time it was built in 1874. The mill stood as the third venture for Joseph Griswold who was already an established industrialist in the town of Colrain, Massachusetts. Mr. Griswold was attracted



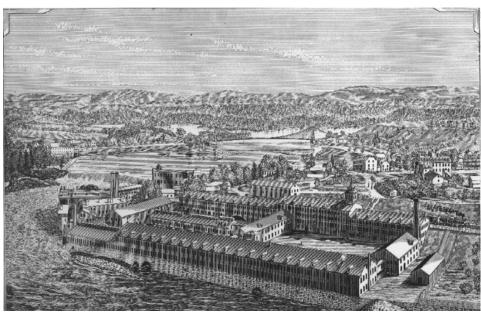


Figure 12: Illustration of the Montague Paper Mills (top) and the Russell Cutlery Works (bottom)



to Turners Falls because of its high capacity power canal. This allowed him to manufacture cotton bandages, cheese cloth and bunting at a large scale.

The Esleeck Paper company opened its doors in 1900 and replaced the Marshall Paper Mill which was only open for four years. Esleeck quickly rose to prominence as a world-renowned manufacturing company of copying tissues, manifold typewriting paper and fine onion skin. By 1912, the company stood as the largest manufacturer of such goods in the world.

Due to the wide range of success as visible with the prowess of industry in the village, the canal was modified again in 1905. This time, the canal was lengthened by one thousand feet to accommodate the Turners Falls Power and Light plant.

4.1.5 Town Life

In accompaniment to the strong industrial presence in Turners Falls was an equally robust sense of culture and community which was ever-present on Avenue A. The avenue was designed to be and has always stood as the main artery of commerce for the village. Nearly all of the buildings that lined the streets were constructed at the same time and auctioned off by the Turners Falls Company in 1868. Turners Falls was a vibrant community at the time of the industrial era with many venues for entertainment and recreation including dance halls, bars, music and theater and parades along Avenue A. Additionally, the proximity to the Connecticut River allowed unique summer and winter festivities.

By 1898, the village's street grid was nearly entirely realized in addition to the completion of the Patch neighborhood on the island and two railroads which ran directly into



downtown to a depot. Additionally, a trolley service, established in 1885, ran along Avenue

A and brought people to Montague City, Montague Center and other towns in the area.

The avenue was a bustling place and contained four hotels within its proximities in additional to commercial blocks which contained stores and other professional services on the first floor and living spaces on the upper floors.

The grandest hotel of the bunch was the Grand Trunk Hotel. It was four stories tall and built in the French Second Empire style. It boasted forty rooms, a bar, a bank and a barber shop. Built in 1872, it was the vision of Bernard 'Barney' Farren. The hotel was an integral part of the community as it served as a place for industrialists, builders and workers to stay when visiting Turners Falls to plan potential investments and consequently the future growth of the village.

The Crocker Bank Building, built in 1869, was as equally integral a building. It contained the Crocker Savings Bank and the Crocker National Bank. Its presence in the village serves as a means to encourage workers to save and invest their money. The bank functioned as a single entity until 1904 when the two banks were forced to separate by new legislation and was eventually purchased by Greenfield Savings Bank.

In terms of entertainment, the Colle Opera House and then the Shea Theater supported a lively arts scene. The Colle Opera House, the vision of pharmacist Fred Colle, was designed as a mixed-use building in 1874. The first library of Turners Falls was located in the space as well as a variety of stores and offices on the ground level. The main feature was the second-floor theater which was accessed by a grand six-foot-wide stair and was home to a variety of performances as well as a place for motion pictures.



The Shea Theater opened later in the industrial era in 1927 and was founded by Dennis Shea. At the time, the screen and projection equipment were state-of-the-art and stage was built in a manner to accommodate live productions. Theater was opened on Valentine's Day in 1927 with a program which included: "An overture by the Shea Theater Orchestra, Warren E. Bringham, Direction, Pathe News, An Our Gang comedy, Variety Entertainers, The feature 'Loves Great Mistake', starring William Powell and Evelyn Brent."

During the early parts of the Shea Theater's life, it was a place where one could catch a movie for five cents and enjoy a dinner as well. It also served as a place for amateur acts including the American Legion Auxiliary, the Rotary Club and was even host to the Turners High School Senior Play. Denis Shea served as the primary manager until 1943 until hiring someone else to manage it. The family sold the theater in 1947, two years after Denis Shea had past and so began the long history of changing hands and owners.

After 1956, the theater remained closed until 1973 when the Renaissance Community purchased it to used as a recording studio and the home of various religious activities.

4.1.6 Shifting Tides

While the change in identity during the 1860's proved to bring extraordinary prosperity to the village of Turners Falls; the shift during the mid-twentieth century did quite the opposite. The village's first established manufacturing company, J. Russell Cutlery began to enter a sharp decline at the turn of the twentieth century. The company eventually merged with Harrington Cutlery in 1933 and the buildings were torn down and replaced by Western Massachusetts Electric Company in 1958. The site would shift again in 1989



when the Indeck Power Plant was built which now provides electrical and thermal energy to the mills through a co-generation plant.

The Griswold Cotton Mill similarly experienced a change in ownership in the 1940's and eventually closed in 1994. The same year, 1994, marked the closing of the Keith Paper Company which resulted in a layoff of around 150 workers and had a lasting impact on the town as a whole. The Grand Trunk Hotel was torn down in the 1960's and replaced by a Cumberland Farms instead. The three other hotels would close their doors as well which stood as symbolic of the dissolution of spirit and decline of activity in the village. The Shea Theater would fall dormant in the early 1980's and change hands again in 1989. That year, it was reopened as the Shea Community Theater and served as a space for music, family entertainment, local productions as well as an education space for school and community groups alike.

4.2 Evaluation of Contemporary Times

4.2.1 Connection to Region

The town of Turners Falls is situated just below Route 2 which is a major route across the northern part of the state. Two bridges, the Gill-Montague Bridge from Route 2 and the 5th Street Bridge from Montague City lead into the city across the Connecticut River. Additionally, 3rd Street serves as a main corridor into the village from the east and consequently Millers Falls and Montague Center.

The Franklin Regional Transit Authority (FRTA) bus system serves the downtown area of Turners Falls and makes stops approximately thirty times per day. The stops in Turners Falls



are part of a larger network which brings residents to and from Greenfield, Orange, Athol, Millers Falls, Montague Center and Amherst. Stops in Greenfield and Amherst serve as connections to destinations out of the region.

4.2.2 Demographics

According to the 2010 census of Turners Falls, contemporary Turners Falls has a population of 4,470 people. The village, which is one of five villages that comprise the town of Montague, covers an area of 2.3 square miles and forms the northwest corner of the town of Montague. The density of the village is 1,900 people per square mile.

Diversity in Turners Falls is not extensive. According to the Turners Falls Livability Plan, the current breakdown of demographics in regards to race is a population percentage of eighty-five percent Caucasian and fifteen percent Hispanic.²⁶ The 2010 US census conversely lists the population at 94% Caucasian, 3.5% Latino, .97%Asian, .74% African-American, .34% Native American and .1% Pacific Islander.

The village consists of 1,995 households with an average family size of 2.22. This number, coupled with the 42.2% non-families and 35.7% individuals which comprise a portion of the total number of households stands to state that a fair amount of Turners Falls is occupied by single families or couples with no marital ties. In relation to age and households, 17% consist of elderly people living alone while 27.7% are children living under the age of 18.

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²⁶ Ibid., 44.

Looking more broadly at the age range of Turners Falls, 23.9% of the population is under the age of 18 while 8.8% are from 18 to 24 years old. The number climbs back up in the 25 to 44 age range with 26.4% of the population and 22.2% being 45 to 64 years old. The elderly community makes up 18.7% at 65 years and older.

The median age of Turners Falls is 40.6 years old and the median household income of downtown residents is \$33,985. Poverty is apparent in the town as twenty-three percent of the population lives below the poverty line which includes forty-two percent of children living in the downtown area.²⁷

4.2.3 Employment

According to the 2012 American Community Survey, the majority of residents are employed in education, healthcare and social services. The second highest tier of employment is manufacturing, retail, information and entertainment. Unemployment is currently at a rate of 10.8%. It was also cited that ninety-three percent of residents drive to work with only four percent using public transportation or choosing to walk/bike. This means that a large majority of people work outside of the downtown Turners Falls area which has an adverse effect on the local economy and spirit of place.

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²⁷ Ibid., 44.

3.2.4 Current Zoning and Land Use

The impact of zoning on the development of the town is minimal since the majority of the structures of the village were established long before the onset of zoning laws. The town of Montague adopted zoning laws first in 1970 and has since amended them dozens of times. The effect of is seen more so in regulating land and building use patterns as opposed to establishing ideas for village planning.

Currently, the most prevalent of the zoning areas in the town are the Central Business District, the Neighborhood Business District and Historic Industrial. The Central Business District (CBD) is defined as areas of mixed-use, with one and two family dwellings as accessory uses, with the street level devoted to commercial purposes, retail sales and services of 10,000 square feet or less of floor area, business or professional offices and non-profit clubs or lodges. The Neighborhood Business District (NBD) is defined as one and two family dwellings, retail sales and service, business or professional offices, craft workshops or light assembly shops. The Historic Industrial (HI) area includes buildings which are considered business or professional offices, retail sales and services, manufacturing, processing or research, craft workshops or light assembly shops, bulk storage, warehousing or distribution.

The Central Business District and the Neighborhood Business District both function as mixed-use areas which promote residential, retail and office space. A new change in the





Figure 13: Map of Contemporary Zoning By-laws of Downtown Turners Falls

CBD mandates that street level units be used for commercial use to continue to establish streets as active commercial zones.

As visible in the existing zoning map (Figure 13), the density of the CBD encompasses Avenue A which aligns with the original intentions of Alvah Crocker. Additionally, the NBD surrounds the CBD and serves as a buffer between the CBD and the residential area of the village. Public / semi-public and recreation / education spaces align the river and form the edges of the village. The original intent of Alvah Crocker's 1868 city plan is also preserved in the sense that the Historical Industrial area still lines the island to the northwest of the



village and preserves that space for light assembly, workshops, warehousing and other industrial uses. Interestingly, the Historic Industrial area also allots for residential and hotel use by special permit.²⁸

Parking for the Town of Montague requires one and a half parking spaces per dwelling, one space per employee, one space per one hundred and seventy-five square feet of retail or office floor space and one space per four seats in a restaurant or theater. The exception to parking requirements is found in the CBD area. It states that retail, office, restaurants and theaters are not required to provide off-street customer parking however, residential units in the CBD area must still adhere to off-street parking requirements.²⁹

4.2.5 Property Ownership and Building Use

The fabric of the village in terms of building construction and town planning was largely established by 1924. The period between 1868 and the end of the nineteenth century marks the second largest influx of newly constructed buildings.³⁰

Currently, there are 319 properties within the bounds of downtown Turners Falls. Of those 319 properties, 286, or ninety percent, are owned by residents or corporation in Massachusetts. Eleven properties, or three percent, are owned by residents of Connecticut and 4 properties, or one percent, are owned by California residents.

²⁹ Ibid., 16.

³⁰ Ibid., 15.



²⁸ Ibid., 16.

A breakdown of the Massachusetts corporation and residents which have a large stake in property ownership include 170, fifty-three percent, owned by residents or corporations of Turners Falls. The next highest percent of ownership is by Greenfield residents, an adjacent city to the west, where residents own twenty-four, 7.5 percent, properties. Interestingly, there are fifteen properties owned by residents of Norwood which is a town south of Boston. Many these properties are owned and managed by a single entity titled the "Power Town Limited Partnership" which includes a large amount of subsidized apartment buildings.³¹

Other specific groups which hold a stake in key properties include the Inhabitants of Montague, the Southworth Company, Firstlight Hydro Generating Co., Power Town Limited Partnership, Crocker Cutlery Limited, and the Montague Economic Development group. The Inhabitants of Montague own twenty-four properties totaling 236,000 square feet including the Strathmore Mill property which totals 177,000 square feet. The Southworth Company, a paper company, owns a total of seven properties with three of those buildings reaching a combined total of 148,292 square feet. Firstlight Hydro Generating Co., a company from Hartford, Connecticut, does not own any buildings but owns over seventeen acres of land which largely includes the Power Island. Crocker Cutlery Limited owns two buildings totaling 55,420 square feet and the Montague Economic Development group owns six properties which includes the former Cumberland Farms convenience store totaling 2,200 square feet.³²

³¹ Ibid., 18.

³² Ibid., 18.



Nearly all buildings that line Avenue A and over ten percent of all buildings within the Downtown Turners Falls boundaries are mixed-use. This high percentage is a testament to the design of Turners Falls as a planned industrial city in the late 19th century. The town was built before the advent of automobiles and in turn has an inherent walkability embedded in the village fabric. The scale and character of the residences, businesses and workspaces feel pedestrian through the use of mixed-use spaces and the high density of street front block buildings.

Along Avenue A, only a few buildings are single-use which include the Shea Theater, the Powertown apartment buildings, St. Kazimierz Society and government and municipal buildings like the Post Office, the Carnegie Library and Town Hall.³³

4.2.6 Vacant and Under-utilized Parcels

While the planning of Turners Falls makes it an inherently pedestrian and walkable place, the density of late nineteenth century building stock makes it so there are very few developable lots in the downtown Turners Falls area. A variety of different conditions in terms of future and current use are visible in Figure 14. As visible in the map, the town assessor's office has deemed a number of parcels, seen in dark red, as developable. Lots in pale yellow are considered to be un-developable due to steep grade and ledge rock found on the parcels. Pink shows surface parking lots which also make up a significant number of vacant parcels. As cited in the Livability Plan prepared by Dodson & Flinker, Inc. in 2013, the town has currently placed an emphasis on the redevelopment of five particular

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³³ Ibid., 21.



Figure 14: Vacant and under-utilized parcels in Turners Falls

sites including the Strathmore Mill, RR Salvage, the former Cumberland Farms and the Town Hall.

The Strathmore Mill has been the subject of a study to determine its viability as a mixed-use space. The RR Salvage building is currently in poor condition and it has been slated to be torn down to make way for new construction. The Cumberland Farms building is also in poor condition but it has been reported that it is structurally sound. A deed has been placed on the site which requires it be used for cultural and community purposes when it is redeveloped. The main portion of Town Hall which lines Avenue A stands in great condition however a 1960's addition which once housed the police department currently

stands vacant. There is currently interest by the public in establishing the space behind town hall as a senior center and new library space.³⁴

4.2.7 Housing

The original city plan was focused around creating a walkable city with a high density of residential housing that encompassed the main industrial area and commercial core. While employment types no longer support this type of city life, the area has kept a high density of residential on streets which run perpendicular to Avenue A. The majority of the residential units found here are townhouses, multi-family houses and duplexes. Additionally, many buildings along Avenue A are either entirely or partially used as residential.

A breakdown of the residential units in the downtown Turners Falls area shows that only thirteen percent are owner-occupied. Of the high density of residential units along Avenue A, less than a quarter are owner-occupied but the trend shifts to a more even split as one reaches the hill along the edge of the downtown area.³⁵ The disparity between owner-occupied and rental units is a concern of residents. It is believed that due to the lack of owner-occupied properties, the overall maintenance of buildings suffers which in turn negatively affects the appearance of neighborhoods.

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³⁴ Ibid., 22.

³⁵ Ibid., 44.

4.2.8 Cultural Initiatives

Turners Falls is a place which is actively leveraging its unique history, setting and character to establish it as a place to visit and live. Figures who are responsible for this are a combination of city officials, business owners, artists and activists. Amongst the variety of departments within the towns governmental structure is the Planning and Conservation Department. The mission of the department is oriented around land-use planning and natural resource protection while also working on economic and community development activities which have been identified in the town plans. The Planning & Conservation Department in turn represents its interests at regional and state levels through projects and planning initiatives in addition to providing support to the Planning Board, Conservation Commission, Board of Selectmen, Energy Committee, Economic Development and Industrial Corporation, Agriculture Commission, RiverCulture and a variety of regional committees.

Within the Planning and Conservation Department is the Planning Board. The Planning Board is responsible for developing and revising the comprehensive plan, zoning by-laws, subdivision regulations, issuing permits for subdivisions and approvals for not required lots and special permits and site plan reviews for industrial development. The Board is comprised of seven members and meets on the fourth Tuesday of every month.

Walter Ramsey, AICP serves as the Town Planner and Conservation Agent. Anne E.H. Stuart serves as the Planning and Conservation Clerk while Ronald Sicard hold position of Chair.

Frederic H. Bowman is Vice Chair and CIC Representative. Bob Obear is a member and the



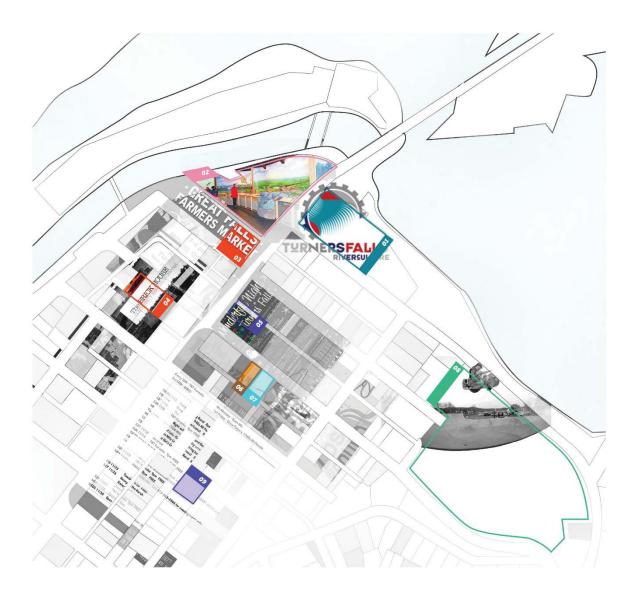


Figure 15: Cultural mapping of Turners Falls

town's FRCOG Representative which is the Franklin Regional Council of Governments.

George Cooke and Bruce Young also serve as members on the Planning Board.³⁶

In the past five years, the town has applied for and received numerous grants which have contributed significantly to new initiatives currently underway or recently completed. The

³⁶ Montague, Town Of. "Town of Montague – Planning Board" Planning Board. Web. 31 Oct. 2016



Livability Plan completed by Dodson and Flinker in 2013 was key in establishing action items to which the planning board has been cognizant to pursue.

The redevelopment and enhancement of Avenue A, the main commercial artery in Turners Falls, has been a large focus of such efforts. The Planning Department received a Community Development Block Grant worth \$384,000 which allowed for the installation of new LED fixtures along a portion of Avenue A and a pedestrian gathering area at the intersection of Avenue A and 3rd Street.³⁷ The construction was finished in 2015 and allows for safer pedestrian travel within downtown Turners Falls and consequently improved night life. Additionally, the town is actively seeking funding to extend the lighting from 5th Street to 7th Street and inside Peskeompskut Park which serves as a main public green space along the edge of Avenue A.

The establishment of Unity Skate Park was a long and important achievement for the town and the broader region. The town was the recipient of a \$272,000 Parc Grant which matched town and donated contributions for the construction of the park.³⁸ The park opened in the winter of 2016 and has served as an important space in cultivating healthy recreational choices for the area's youth. A local skate shop holds classes at the skate park and events and competitions are held during the spring, summer and fall months. *insert photograph

Montague, Town Of. "Town of Montague – Planning and Conservation Department" Planning and Conservation Department. Web. 31 Oct. 2016

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³⁸ Ibid. 31 Oct. 2016

A grant from the Massworks Infrastructure Program worth \$352,750 was secured by the Planning Board and allowed the town to construct a public parking lot in the summer of 2016 on a former brownfield site along 3rd Street. ³⁹ The new parking lot adds an additional twenty-five parking spaces to the downtown area and helps to support redevelopment of the Historic Canal District as well as ease the demand for parking caused by the increase in events at the Shea Theater. Additionally, locals created a sculptural mural which lines the edge of the parking lot and adds a level of intrigue and character to the area.

Currently, a large effort is underway to conduct a comprehensive study as to the extent and impact of the 1676 battle at the Great Falls which stood as a turning point in the King Phillip's War. The initiative has brought together four neighboring towns and three tribal historic preservation offices which have partnered with the Town of Montague. The public has developed a substantial interest and meetings regularly attract over one hundred attendees. The Town of Montague believes that the research they are seeking to establish will lay the groundwork for a longer-term archeology project which could lead to a historic register designation and consequently cultural tourism. The first phase was completed in August of 2016 and the town is actively applying for funding for a second phase which would include archaeological research in 2017.⁴⁰

Within the planning department is the RiverCulture initiative which was formed in 2006. The organization was brought to fruition through the collaborative effort of artists, organizations, business leaders and town officials in order to develop programming which

³⁹ Ibid. 31 Oct. 2016

⁴⁰ Ibid., 31 Oct 2016

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embodied the diversity in culture, scenic beauty and strong historical and ecological elements of Turners Falls.

RiverCulture works out of the town hall. Its primary mission is to cultivate art and culture in Turners Fall in an effort to enhance the community's quality of life. The organization engages with a variety of community groups including people involved with education, politics and local business to support a creative economy. RiverCulture works towards its mission by hosting and promoting cultural events, developing branding and marketing strategies for the area's premier cultural resources, serving as a platform for the community to discuss local social issues through cultural means and actively analyzing the impact of culture on the Turners Falls' community.

RiverCulture's impact on Turners Falls has been significant since its inception. An analysis of economic impact performed in 2007 by the UMass Dartmouth Center for Policy determined that cultural activities in Turners Falls had attracted nearly 30,000 people and generated \$785,400 for the local economy. The organization was the recipient of the 2011-2012 Massachusetts Commonwealth Award for Creative Community. The award recognizes initiatives that utilize art and cultural programming to make exceptional impacts on education, economic vitality and quality of life in Massachusetts communities.

The organization initially began with a marketing and branding initiative in addition to a website which served as a central resource for community events. It created walking tours, brochures and public artworks which doubled as bulletin boards. RiverCulture used events like the Block Party and concerts in Peskeompskut Park to bring people back to downtown



Turners Falls. Additionally, it used art installations to establish activity in under-utilized spaces to heighten activity in the town.

Through the RiverCulture website and its marketing effort, the organization actively facilitates and markets a variety of events found at distinct venues in Turners Falls. The Brick House Community Resource Center is one of these important community spaces. The organization was founded in 1990 as a reaction to the deaths of four women caused by disputes with domestic partners. In response, the Brick House wanted to create a space to provide services to foster community and craft long-term solutions for change and community-based development. It does so by supporting the well-being of individuals, families and the greater community through collaboration on youth, economic and leadership development and education. The Brick House has assisted 2500 residents through its counseling programs, education, employment resources and job training.

The organization also offers studio and space rental within the building it works out of. 'The Front Room' is a large, open plan and wheel chair-accessible storefront with amenities like a sound system, stage lighting, curtains and a projector and screen. The space can hold up to 49 people and often hosts concerts, recitals, screenings, lectures and meeting. 'The Movement Studio/Gallery' is located on the second floor of the Brick House and serves as a private open space. It is also suited for a variety of activities including classes, meetings, performances, private instruction and gallery showings. The revenues generated from the rental of either space are used in support of the on-going array of programming for the Brick House.



According to an article published in the local newspaper, The Recorder, the Brick House is actively seeking a Community Development Block grant worth \$25,000 dollars to match \$15,000 from the Department of Public health in an effort to accrue funding for two leadership and education groups centered around youth and young adults. Money would allow for the group to meet weekly as opposed to bi-weekly and help to launch a new program centered around eighteen to twenty-four year-olds which would teach young adults skills in resume buildings, healthy food access and preparation, sexual and mental health and workplace etiquette. 41

Another initiative that the Brick House was involved with was the realization of the Unity Skate Park which has served as a vital resource for local youth. As stated, the skate park was identified as an important action item by the town and planning board and the Brick House served as a resource for organizing fundraisers and collection donations in an effort the see the project through.

The Shea Theater stands as another vital venue in the revitalization efforts of the village of Turners Falls. The Shea stands as a community resource and plays a primary role in attracting regional attention to the village. It has had an important stake in providing entertainment and culture since its inception in 1927 and has seen numerous revitalization and restoration efforts throughout the building's lifetime.

One of those major revitalization efforts came to fruition and marked a new phase its history in 1990 when it reopened its doors. Having fallen dormant for thirteen years after

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⁴¹ Luttrell, Aviva. "Montague Mulls Ideas for Block Grant." Turners Falls. 02 Mar. 2016. Web. 01 Nov. 2016

the Renaissance Community left the space, the Shea Theater was again sold this time to the Franklin County Community Development Corporation who began a restoration project. The property was then bought by the town of Montague and rented it to the non-profit Shea Community Theater at \$1.00/year.

Again the Shea changed hands in 2014 when an enthusiastic group of residents and local business owners assumed leadership. The group, equipped with strong ties to entertainment and arts in the surrounding communities, launched a highly successful fundraising campaign in which they generated \$250,000 in funds. The donations were used to establish a new bar and completely remodel the entrance space of the Shea. A new LED-illuminated drop ceiling in addition to artwork and fresh, vibrant paint create a new and energetic atmosphere.

The Shea hosts both musical shows as well as theater. Music shows include folk, pop, rock, sing, jazz, country and traditional. Theater productions include musical comedy, drama, comedy and political satire. Drama classes and summer camps/workshops which attract both talented teachers and students alike. In addition, there is an increasing demand in offering school programs which are open to local schools at an affordable price. A new partnership with Northampton-based record label Signature Sounds allows for a variety of musical programming in turn driving larger crowds and higher revenue.

Aside from hosting its own events, the Shea serves as an important community resource to which RiverCulture and other venues utilize the space for programming. Suzee's Third Street Laundry is such a place. The business has started an annual even titled 'Turners Falls Lost and Found Fashion Show'. Workers and volunteers use clothing from the lost and



found bin at the laundromat to create new design to be modeled at the show. Originally run out of the laundromat, the event has been on-going since 2007 and now is held at the Shea.

The Rendezvous is a local bar and restaurant which was established in 2007 and contributes to the creative fabric of the village. The renovated space has a strong and diverse program of music, comedy, open mic, karaoke and games nights which attract a variety of people on any given night. The venue actively works to foster relationships and promote local artists. It uses its website to advertise evening events as well as promote and provide exposure to nearly eighty local musicians, writers, comedians and visual artists which have performed or showcased in the space. The Rendezvous is just one of many new restaurants which have inhabited the existing building fabric and created a new and attractive place to enjoy the Turners Falls downtown area.

4.2.9 Current Spatial and Experiential Dynamics

The contemporary spatial quality of Turners Falls can be understood through a walk along the Canalside Rail Trail starting from above the Gill-Montague Bridge, underneath the bridge and into the Power Island. The experience reveals a dichotomy between the serene landscape above the dam and evidence of the village's industrial past below. A tension is tangible and the polarity between the two heightens one's perception and appreciation of the contrasting conditions.

In standing at the river's edge along the northern portion of town, the grand span of the Gill-Montague Bridge and the Gill neighborhood across the reservoir appear in a perfectly mirrored composition. The landforms dissipate and the enormity of the sky takes reign.



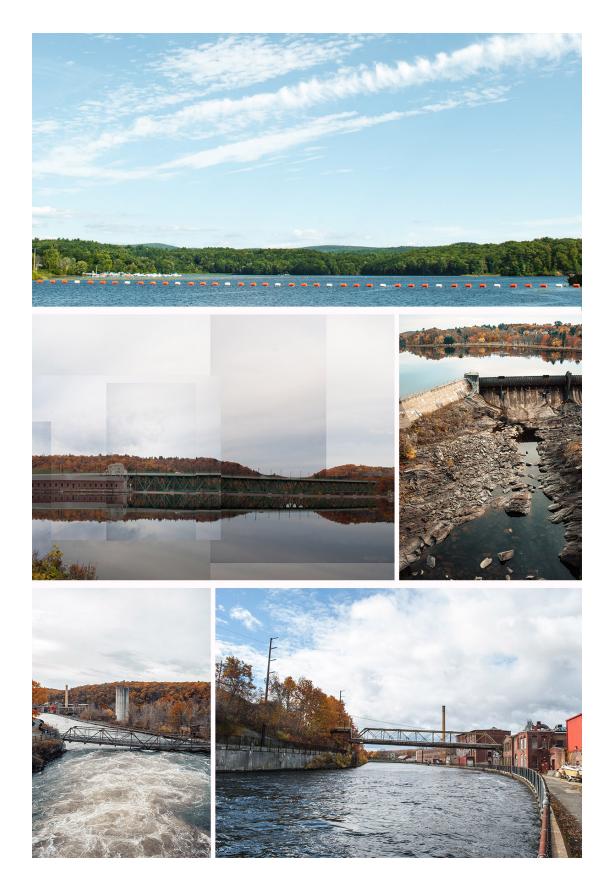


Figure 17: A visible dichotomy of experience and spatial quality above and below the Turners Falls Dam

The proximity to the slow-moving water creates a particular stillness as the soft rush of water which tumbles over the dam is audible in the background.

Continuing southwest along the river's edge, one walks under the Gill-Montague Bridge and is immediately thrust into an area of tumultuous landscape with visible signs of human intervention. A canal with robust concrete walls forces the water, which laid still just moments again, into a series of powerful eddies which swirl around the footings of a rusted pedestrian bridge. The pedestrian bridge, once used to transport people and goods from downtown Turners Falls onto the Power Island, sags at the center and nearly catches the edge of the rushing water beneath.

Visible along the horizon is a collection of grand, overgrown mill buildings which make visible a history of degradation but contain an inherent raw beauty through their jarring juxtaposition within the natural landscape. The strong current of the water cuts across the peripheries of the scene of industrial ruins which line the canal's edge. An additional bridge runs overhead which creates an encompassing effect of the industrial area visible below, along the horizon and above. The Rail Trail links to a larger regional network of bike paths in turn bringing a variety of people along the canal's edge. This feeling of standing amongst a living history of the rise and demise of an area is a tangible energy and this spatial quality ripples through the rest of the downtown area.



CHAPTER 5

FIRST STREET CULTURAL CENTER

Through deep explorations of the physical and social history and contemporary context of Turners Falls, the final architectural resolution is one that seeks to capture the rich and visible memory of an industrial history with solutions addressing revitalization through a renewed spirit of making. Strategies including proper siting, tectonics and scale and the materiality of the space were used as guiding principles throughout the design process. These efforts help to bring clarity to an investigation which seeks to spark change through a building which is contextually, programmatically and functionally sensitive to the contemporary strengths and weaknesses of the place. This response is embodied in the design of the First Street Cultural Center.

5.1 Stakeholders

With research rooted in gaining an understanding about the social and cultural constructs of contemporary Turners Falls, a civic building which engages four main stakeholder groups was developed. These stakeholders being the staff of the RiverCulture Initiative, local youth, local artists and local business owners. The stakeholder groups were arrived upon through research of current economic and social trends. Turners Falls is home to a budding cultural community. These four stakeholder groups create a connection back to the history of making and culture in Turners Falls. The resolution of a building as a new civic space which fosters culture creates a link back to Turners Falls' historic roots and crafts a new vision for the future.



The RiverCulture Initiative serves as the leading voice of a new era of artists, artisans and entrepreneurs in the village. Since its conception in 2006, the initiative's events have served as a unifying community element and draw people from neighboring towns and counties to the town through the organization of larger events. RiverCulture currently works out of the Montague Town Hall which is located at the northern edge of Avenue A in Turners Falls. From an outsiders perspective, the group's work is most visible and accessible through their website which contains a calendar and blog of events, however it is the intention that by including them in a proposed cultural center, their physical presence becomes more visible. This is realized by providing administrative offices within the program of the new building which provides a new home at a distinct new cultural space.

An engagement with the youth of Turners Falls is important in sustaining Turners Falls as a cultural community by establishing it as a place of education as well. Statistically, over a quarter of the population of Turners Falls is comprised of children under the age of 18, while forty-two percent of the population of downtown Turners Falls lives below the poverty line. In examining these statistics, it becomes increasingly important that when imagining the impact that a new space can have on the future of Turners Falls, a future which provides safe and constructive activities for the youth be at the forefront. Community resources which empower children and provide opportunities to them exist but in limited degrees.

From a broad perspective, Western Massachusetts, to which Turners Falls is a part of, has an incredibly rich culture of artists, artisans and craftspeople. Neighboring towns like



Northampton, Holyoke and more recently Easthampton, all with frontage along the Connecticut River, are places with the more visible and better-known creative communities in the area. The landscape and culture of Western Massachusetts makes it a natural draw for people involved in the creative endeavors.

Turners Falls has been home to a budding creative community for a number of years. By engaging with local artists, artisans and craftspeople, and providing explicit and visible spaces which cultivate and showcase the talented people of Turners Falls, there lies the potential to build upon the creative economy that already exists in village. The physical fabric of Turners Falls, the current economy and the affordable price of living makes the village an incredibly viable place for artists to live and create. In creating a space which directly engages with and serves as a draw for the creative community, Turners Falls has the potential to offer its unique story and setting to the greater community of culture in Western Massachusetts.

5.2 Site Selection

Site selection is integral to defining the narrative for the future of Turners Falls. As established in Section 2.3, buildings have internal forces which directly influence the future development of their surrounding context. The First Street Cultural Center is a catalyst and a beacon to an inspired future of making in the village and its site is integral to facilitating this future.

When choosing a site, it became important to develop a specific list of criteria to which each could be evaluated against. Three potential sites were chosen and evaluated using three different criteria. First, the site must be such that it creates a connection to the



historic industrial buildings of the village. Secondly, the site must engage with Avenue A and the main commercial corridor of the village. Lastly, the site must help to realize the potential connection between Turners Falls and its unique setting along the Connecticut River.

A connection to the historic industrial buildings of the village stands as essential because an understanding of and an appreciation for the origin of a place helps to establish context for future growth. In the case of Turners Falls, the village's area of making along the Patch is still visible today and forging a connection with the new space creates a context to which a reinvigoration of making is set. The connection crafts a familiarity with the context and informs both community members and visitors of the important history of Turners Falls and the influence on its future.

Avenue A is the main circulation route through Turners Falls. The Gill-Montague Bridge brings visitors and inhabitants to Turners Falls from Route 2 which is a major state road running in an East/West fashion along northern Massachusetts. By aligning the site with an adjacency to Avenue A, the building becomes both visible and accessible to potential users of the space. Additionally, most cultural spaces are located along Avenue A or adjacent to it. By selecting a site in proximity, the new space becomes accessible and creates a dialogue with other cultural spaces in downtown Turners Falls.

Turners Falls' setting along the Connecticut River is a powerful asset and is currently being underutilized. Unlike many towns which share an adjacency to the Connecticut River, much of the density of the village's downtown area is within walking distance to the water's edge.

The bend of the river and the dam creates a reservoir prime for activities and dwellings



along the water's edge. A new space should engage with these notions and serve as a draw for both citizens as well as visitors to rectify a history of exploitation. In turn, a new harmony between the village and the river is spurred. With this criteria in mind, three potential sites were explored:

Site 1: The Power Island

The Power Island, also known as the Patch (Figure 17), is the site of the original mills built at the conception of Turners Falls. Currently, two major mills exist with one being partially occupied and the other, The Strathmore Mill, standing vacant. The buildings which make up the mills located on the Patch exist in varying degrees of disarray due to fires and degradation over time. The Patch was one of the first areas that was engaged when determining an optimal site. Through an investigation to the current condition and the area's potential, a study developed in 2013 by the Urban Land Institute (ULI) was referenced and it was ultimately determined that the Patch did not adequately meet the site selection criteria.

Being that the Patch is the site of the original mills buildings built in Turners Falls, a site within the area does create an immediate connection to Turners Fall's industrial past. By aligning with the adjacent industrial buildings, not only would a new building allude to history but it would establish a visible adjacency valuable to creating the desired connection between past, present and future.

A site along the Patch does not engage with Avenue A in a meaningful way. Due to an elevation change, the area lays somewhat hidden below a bluff and thick vegetation which lines the edge of the Power Canal. Visibility is possible from the Gill-Montague Bridge and



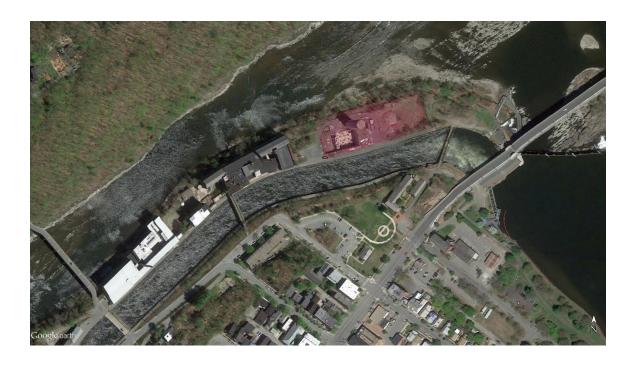


Figure 17: Aerial view of the Power Island



Figure 18: View of the west side of the Power Island Mill



the Canalside Bike trail but neglects to engage with the large amount of vehicular traffic passing through the center of town. Additionally, the study conducted by ULI cited access as "extremely limited." Given that the site is removed from Avenue A, parking would likely have to be accommodated for which it was cited that parking is "unpractical" given the configuration of the mill buildings.⁴²

Lastly, given the topography of the Patch, it becomes difficult for a building along the project to engage with the Connecticut River in a meaningful and harmonious way as shown in Figure 18. Because of its industrial nature, the Patch engages more so with the power canal than the Connecticut River. Ultimately, it is desired that the site serve as a building block for a new future with the Connecticut River and this is not immediately attainable on the Patch.

Through evaluation, a site along the Patch fails to meet two out of the three criteria developed for optimal siting of the space.

Site 2: 53 Avenue A

Located adjacent to the Shea Theater and on the corner of Second Street and Avenue A (Figure 19) is a building built in the early 1900's. It marks the northern edge of Avenue A and is currently home to a Subway and a restaurant serving Asian cuisine. Though it is an older building, it is not a historically significant structure and is one of the few buildings without a historic designation along Avenue A. Consequently, it became a site of potential

⁴² Urban Land Institute. *A Technical Assistance Panel Report: Strathmore Mill Complex Redevelopment*. 2010. Print. 11.



64

development for this project. Through an evaluation of criteria, it was determined that the site was inadequate for development of the new cultural center.

While the building does engage with historic buildings in downtown Turners Falls, it fails to draw a direct connection to the historic mill buildings of the Power Island. In fact, its location within the context of the historic buildings of Avenue A would draw the wrong connection to the historic. A visitor would understand the building as a new commercial space and less a space of reinvigorated making in the village. While the Power Island is walking distance from the site, ultimately there is no context to which a visitor would understand the building's intent to draw meaningful connections from past and to present.

The site does contain a strong connection to the commercial district of Avenue A as it marks the northern edge of the avenue. Visibility to both inhabitants and passing traffic



Figure 19: Aerial view of 53 Avenue A



would be easily accomplished. However, a special permit would have to be attained to enable a makerspace to exist along Avenue A as workshop spaces are not included in the current zoning of the area. Additionally, the site would be better suited for a space which is primarily commercial in nature and less as a space for education and the arts.

53 Avenue A fails to draw a meaningful connection back to the Connecticut River. It does more so to bring new attention to Avenue A. Its location does more to reestablish Avenue A as the main corridor of Turners Falls and less to offer a new perspective of the merits of building anew in Turners Falls. By bringing people to the water's edge, they are educated to the history of the place and an appreciation to the ecology of the place is understood.

Through evaluation, a site at 53 Avenue A fails to meet two out of the three criteria.

Site 3: First Street

A site on First Street was a seen as an intriguing option for the fact that it is currently empty, is adjacent to a parking lot and town hall and is across the street from the Canalside Rail Trail and the Connecticut River (Figure 20). It one of a few empty lots prime for development as it stands in the downtown area and served as an exciting opportunity for investigation.

The First Street does not have a physical connection to the Power Island however it alludes the industrial area. Given its location directly above the dam and near the water's edge, one is able to experience both the lush landscape of the reservoir at the First Street site and in following the river downstream along the bike path, one immediately arrives at the Power Island. In some ways, this becomes a powerful tool in connecting the visitors back



to the industrial area of Turners Falls. It encourages visitors to explore the area along the Connecticut and understand the process of industrialization by seeing the reservoir, then the dam and then the canal.

Though not directly on Avenue A like the 53 Avenue A site, the empty lot is just one building lot removed from the avenue. Given this fact, it has adequate visibility to and from Avenue A. There is currently an existing sidewalk which would enable people along Avenue A to access the site with ease. Additionally, it stands removed enough from Avenue A that a workshop and makerspace would not be disruptive to commercial activity on the avenue.

The site's adjacency to the Connecticut River makes it prime for establishing a new connection to the river. Ultimately, the treatment of the land along the river is essential to crafting such a narrative and the site allows for such design work to take place. The Canalside Rail Trail runs directly along its northern edge and encourages both bicycle and

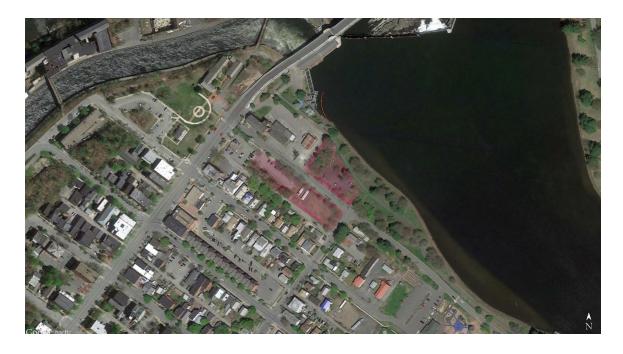


Figure 20: Aerial view of First Street Site



pedestrian traffic to visit the new space. The fact it is currently empty creates the potential for the site to serve as the seed of a new area of development centered around culture, recreation and ecology at the water's edge.

Through evaluation, a site along First Streets meets all three criteria established in site selection and offers the potential for an exciting new space of gathering and culture in downtown Turners Falls.

5.3 Site Analysis

With the empty lot at First Street chosen as the site, analysis and understanding of adjacencies and context in terms of scale, materiality, access and tectonics were developed to inform design decisions. Given its location off of Avenue A, the site at First Street is not one of a corridor into Turners Falls but rather a destination and a seed for further development along the waterfront.

In terms of context from a broad scale, the First Street Cultural Center has the potential to stand as a beacon for a new era of arts and culture in Turners Falls. Its proximity to the Connecticut River allows for the establishment of an active waterfront area and its adjacency to Montague Town Hall creates a direct connection to the RiverCulture Initiative to which much of the cultural events in the town are already developed and coordinated. The site's visibility from the Gill-Montague Bridge and Avenue A allow for it to draw visitors and unsuspecting people passing through Turners Falls to the site and encourage them to explore the beauty and unique character of the surrounding area.



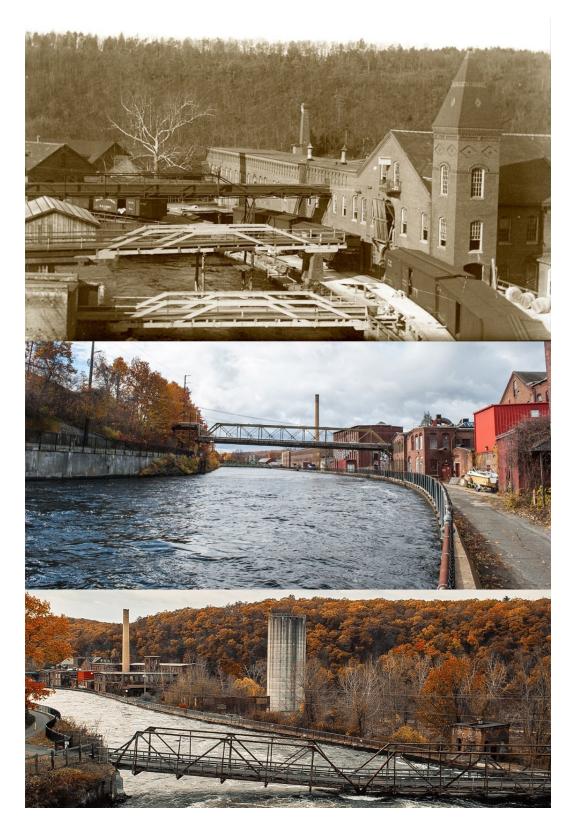


Figure 21: Historic and contemporary bridges in Turners Falls

The cultural center seeks to bridge the past to the present through a reestablishment of the history of art and making. In this sense, bridging serves as a metaphorical connection between the past and present. In understanding the physical history of Turners Falls, bridges have played an important role in the movement of people, ideas and materials across the canal and Connecticut River which define much of the landscape of Turners Falls as visible in Figure 21. Bridging becomes a contextual tool in organizing spaces which relate to each other within the site and as a way to draw people to the site. Additionally, the use of bridging metaphorically draws connections to the historic physical fabric to which the new space is set.

The site falls within the Neighborhood Business District which allows for one and two family dwellings, retail and services, business offices and craft workshops and light assembly shops. The NBD is the most diverse of the zoning districts in terms of potential building uses which bodes well for the creation of a dynamic multi-use space. Additionally, zoning by-laws limit building heights at thirty feet which is important to be cognizant of given the scale of the surrounding residential buildings.

In terms of direct adjacencies, the site is positioned within a dynamic setting. Open landscape, the Canalside Rail Trail and the Connecticut River form the northern edge, residential buildings stand to the east and south and a restaurant, town hall and Avenue A to the west. The variety of conditions depending on direction allow for a dynamic response.

Given that the cultural center is developed around becoming a beacon for the budding arts community in Turners Falls, visibility to the street edge becomes an important factor.

Opportunity for visibility comes from establishing an open and porous quality along the



northern edge of the site. By being porous and visible in nature, an active zone is created along the street edge and moves out and across the street up to the water's edge. Tying this quality of visibility to the western portion of the site becomes increasingly important as the majority of vehicular traffic travels along Avenue A. If the building is to serve as a destination, an active public zone must be established along the site's western edge through both landscape features and public interior space.

While the northern and western edges of the site call for a more porous and open quality of space, the east and south edges are primarily residential and are consequently call for a smaller scale and more opaque quality. In being responsive to the context of the site, the property lines and proportion of the adjacent structures were picked up on through a series of datum lines which are extended into the site. In developing these datum lines, opportunities for rhythm of tighter, interstitial spaces and large grand spaces begin to develop. This idea, coupled with organization of program begins to establish a conversation between the adjacent structures and a linear approach to programming. Given the longitudinal nature of the site, using datum lines of the tighter property lines to the south provide opportunities to break up the size of the building and create volumes of a more human scale.

5.4 Program Analysis

The First Street Cultural Center serves as a place where the many facets of art and culture in Turners Falls are visible and on display. In order to create a new community of making, it was determined necessary to offer a diversity of spaces. Through proper programming,



	First Street Cultural Center									
Program Item	Category	Total Quantity	Unit Area	Total Area						
Flexible Performance Space	Engage	1	1500	1500						
Café	Engage	1	800	800						
A/V Booth	Engage Support	1	200	200						
Green Room	Engage Support	1	500	500						
Artist Studio	Create	5	300	1500						
Fabrication Shop	Create	1	3000	3000						
Shop Manager's Office	Create Support	1	120	120						
Storage Space	Create Support	1	600	600						
Gallery	Educate	1	800	800						
Communal Studios	Educate	2	600	1200						
Office	Planning / Administrative	1	200	200						
Restrooms	Building Services	6	150	900						
Loading Dock	Building Services	1	300	300						
				Total Area						
				11620						

11020

Figure 22: First Street Cultural Center Program

the building becomes as much of a location for learning and education of the youth as it is a space for new economic opportunities and artistic endeavors. Figure 22 displays the list of program with their respective titles, quantities and square footages:

In developing a program which captures the process of making, it became an important step to develop an associated action word which helped to group like spaces within the overall program. The three action words were deemed create, educate and engage. Figure 23 illustrates the linear relationship between the three.

The 'create' spaces, the artist's studios and the makerspace, tell the story of a new era of making in Turners Falls. The makerspace is one which provides a variety of tools for set design, woodworking, metalworking and computer-aided tools like 3D printers and CNC routers. It is meant to serve as a community resource. It is open to the public and educational courses in art and making are held through coordination with the local school



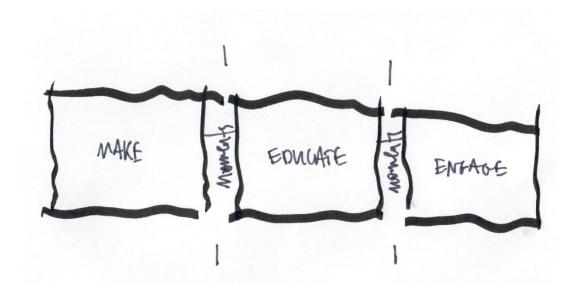


Figure 23: Linear Relationship between Main Programmatic Elements

system. Other cultural spaces in town can engage with the space to create sets, props or anything of the sort for their own events and happenings. The space is also available to visiting artists who may be renting the five available artist's studios within the space. The artist studios are meant to attract artists to Turners Falls in hopes that the work they create is inspired by the unique setting of the place. In turn, the work they create may help to spur conversation about the current conditions of Turners Falls and offer a new perspective of what the place can become.

As visible in the Figure 24, the 'create' spaces are laid out in a manner which allows for visibility and porosity out to First Street. The diagram consists of a large open plan and a flexible interior while the various service spaces are aligned in the rear of the building. Porosity to the street edge is important because the cultural center must adequately communicate the kinetic nature of the building as a way to spark intrigue and excitement



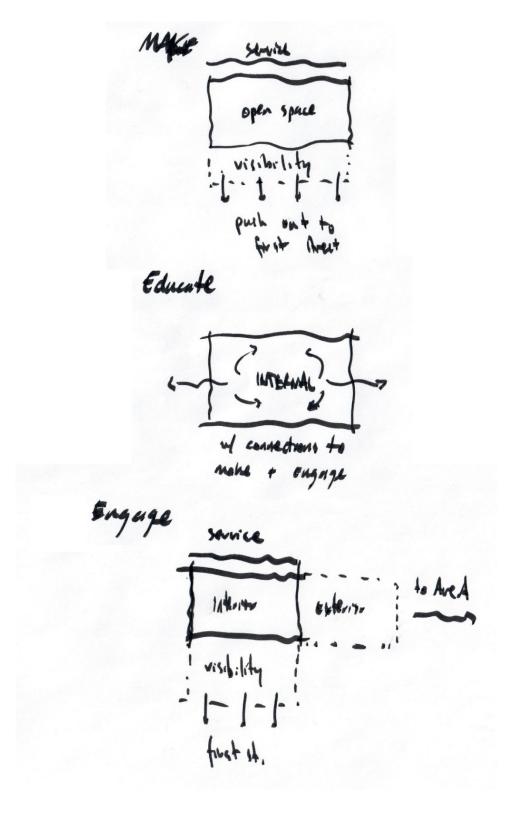


Figure 24: Programming Diagrams

to people passing by. By aligning the 'create' space with First Street, it reinforces the idea that the First Street Cultural Center is beacon for a new history of making in Turners Falls.

The 'educate' spaces are the gallery space and the communal studios. The communal studios stand as explicit areas of education while the gallery space serves as a place for an educational opportunity. The 'educate' portion is arranged in between the 'engage' space and the 'create' space as a way of crafting a connection between the beginning and end of the creative process. As visible in the diagram in Figure 24, the educational portion is one of an internal quality which encourages people to move between the 'create' and 'engage' spaces in turn understanding the process of making and the end result. The gallery is located centrally in the building with the main stair within the gallery as a way to draw people into the space and encourage them to dwell in, around and above the objects that are being made within the cultural center. The gallery plays host to a number of different activities and events. It serves as a place for display and celebration of work produced by local youth in the makerspace and communal studios. It also serves as a place where work from visiting artists may exhibit their explorations. And lastly, it serves as a play where the sets and scenes from performances in the performance space are exhibited and able to be viewed after productions.

The flexible performance space and the café fall within the category of 'engage' space. The flexible performance space serves as an area of culmination and visual display of the action which occurs in the makerspace. Sets and scene which were built in the 'create' space are used to engage with the public through performances and plays. The space is flexible and is able to accommodate lectures by visiting artist and other individuals who may speak on



a variety of topics. Ultimately, the performance space serves as a draw for the public to learn of the activities within the cultural center but who may not be actively engaged in the action of making itself. The café engages with the public by inviting people into the space and providing an amenity of coffee and light fare which can be appreciated by all. In a sense, it becomes a gesture to the public that the cultural center is a shared space for all. A patron may be someone riding by bike along the Canalside Rail Trail or someone using the makerspace. As visible in the diagram in Figure 24, the 'engage' space is similar to the 'create' space in that it is also porous and provides visibility to both the north along First Street as well as to the west and Avenue A. It is located in the western portion of the site because these spaces are seen as the most public and consequently seek to engage with the most public adjacencies found on the site.

5.5 Conceptual Development

Physical models were used as a way to explore and determine the materiality, three-dimensional organization and the experiential quality of the design resolution. Two physical models were constructed which explored the theme of capturing the layers of memory associated with spaces into a physical form. The first model was a parti model representing the embodiment of the quality of Turners Falls while the second model captured the structure and spatial organization and further developed materiality in an abstract manner.

As visible in Figure 25 the parti model responds to the programming exercise by dividing the spaces into through distinct and smaller volumes. The division is accentuated by the





Figure 25: Parti model which seeks to capture the material quality of Turners Falls

use of planar elements in between which serve to pronounce and articulate the separation in spaces. In doing so, each smaller volume is treated as a single, unique entity. However, each is of the same dimension and proportion which crafts a connection between the three.

The overall composition is tied together by a single, central void which runs linearly through the entire model. This gesture speaks to the linearity of the site and also to a metaphoric idea of captured time and history as a linear line. Looking from the side as visible in Figure 25, four white members run through the entirety of the model but when looking through the end, the piece is compressed into a single moment. In this sense, the voids spatializes time and history as a linear sequence but also manages to capture the linearity of time as a compressed, singular moment.

Materially, the model is crafted from found carboard, acrylic plastic and basswood. The larger volumes are made entirely from cardboard. The material is leveraged in different manners to communicate how something that is often seen as standard and mundane, if handled properly, can be both dynamic and beautiful. This idea is in anticipation of the use of reclaimed brick in the First Street Cultural Center and imagines how a material which is standard and weathered can be used in a manner to which its natural patina and imperfections are displayed and celebrated.

Within each volume are portions of cardboard with bits of saturated colors, letters and patterns. These are perceived of as moments within the composition where heightened details are used to draw the eye to certain portions of the form. Their presence is restrained so the value of each is increased. Voids within the volumes are also introduced



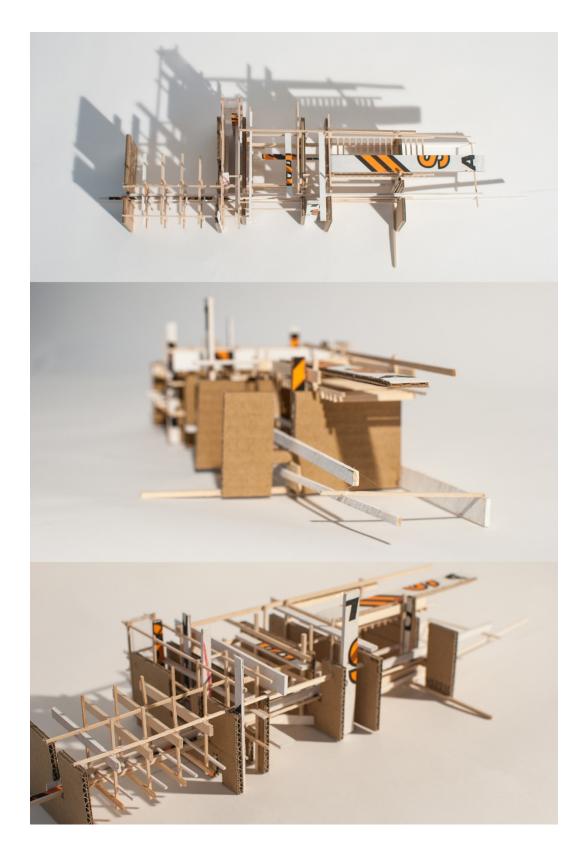


Figure 26: Parti model which expresses the response to site and structural relationship

as a way to introduce curated views into the opaque and monolithic volume. This speaks to strategies of how each individual volume within the First Street Cultural Center may contain distinct and intentional moments used to draw the eye to a particular space.

The second model, as visible in Figure 26, is rooted in the exploration of spatial qualities, structure and materiality. Though the model is still conceptual in nature, it begins to establish a formal quality and crafts a direct response to site analysis. Again, the model is broken down into three distinct volumes. Cardboard and basswood are used exclusively and a conversation between a finely articulated form and a series of vertical cardboard elements emerges.

Once again, the overall form is tied together by a linear cut which spans the entirety of the model. This time, the linear cut is located on what is the north side of the model. In arranging it in this fashion, it creates a visible line throughout the public zone along First Street. It becomes a pathway to which each volume is bridged allowing circulation to flow from one end of the building to the other in an uninterrupted manner. Visible in Figure 26, basswood stretches out past the cardboard element. This signifies a gesture out into the surrounding area as a method of engagement. A lack of density along the northern portion of the model communicates a larger public gathering area reminiscent of the space desired along. First. Street. Vertical elements in the zones between the larger volumes communicates a gesture of vertical circulation through the tighter interstitial zones. Visible is Figure 26 is a raised structure divided into five portions at the northern edge of the model. This gesture communicates the location of the artist studios within the 'create' zone but raised up off the ground. By being raised off the ground, space below is opened



up for the makerspace to extend into the landscape and views to the Connecticut River are set up for the artist studios.

Materially, the basswood structure represents a steel structural system while the planar cardboard members represent thick brick walls comprised of reclaimed brick. The cardboard used is rough and has text on it. It is handled in this way to speak to the imperfect nature of the brick found along the Power Island and at the site of vacant, historic mills. The interwoven nature of the basswood and cardboard speak to a relationship between two contrasting materials and represent the harmony between a historic material of Turners Falls and the introduction of a new material.

5.6 Final Resolution

The final design resolution of the First Street Cultural Center was one which involved an intense evaluation of contextual factors within Turners Falls. This evaluation combined with research rooted in understanding the connection between the mind, body and memory through spatial constructs set up the development of the First Street Cultural Center. Conceptual ideas were distilled through diagramming, sketching, photographic documentation and physical model-making. These efforts helped to inform a strategy consisting of three major criteria to which the final design was developed through and evaluated against. The three criteria being an evaluation of siting, tectonics and materiality. Ultimately, these three criteria served as meters to which the success of the new building could be assessed within its historical context. The building and its surrounding context create a new narrative for Turners Falls. A story of revitalization through a renewed interest in making.



The site on First Street currently lies dormant and vacant. Its exact location along the Connecticut River is vital in establishing a new narrative for the future of Turners Falls. As mentioned through the site selection process, the choice to build anew on an empty lot was done so as a way to spark a new harmony with the ecological landscape so vital to Turners Falls.

Much of the recent history of Turners Falls has been centered around the exploitation of the Connecticut River. Industry has left but the visible scars of a past rooted in exploitation remain. The Power Island is left largely dormant and associated costs of redevelopment stand high and currently unattainable. In some ways, the industrial history of the place has become limiting to future growth. As stated in Section 4.2.9, a dichotomy exists between the area upstream from the Turners Falls Dam and the area downstream. The location of the First Street Cultural Center (visible in Figure 27) asserts that the setting to which a new Turners Falls is imagined is better suited along the edge of the reservoir than the industrial bones of the Power Island. The landscape is lush and active with wildlife. The stillness of the water creates a mirrored effect and consequently a meditative and inviting environment. The Canalside Rail Trail and the development of Unity Park has already helped to activate the area. People frequent the river's edge on bike trips and walks and would be encouraged to engage with the First Street Cultural Center through its siting.

The project's location across the street from the Montague Town Hall creates a direct connection to the RiverCulture initiative which currently works out of the building. Also visible in in Figure 27 is a proposed sculpture park which is seen as an extension of the





Figure 27: Site Plan of the First Street Cultural Center

cultural center into the landscape along the waterfront. The sculpture park speaks to the potential of the surrounding area as a place where both building and landscape work together to establish Turners Falls as a cultural hub.

The First Street Cultural Center establishes a relationship between the past and present through strategies developed in Chapter 2. Ideas of complexity, tension and spatial





Figure 28: Perspective from the Sculpture Park

ambiguity are essential tools in creating spaces which call to mind a memory of a past place. As a renewed place of making, a memory of the past is important in grounding the building in its physical and historic context.

The tectonic and material response to this narrative is primarily rooted in the relationship between a series of robust brick walls (Figure 28), oriented in a north/south manner, and a passage way, referred to as the Bridge, which cuts through the brick walls. The primary walls, made of reclaimed brick from the abandoned mills on the Power Island, physically capture the texture and raw nature of the industrial mills of Turners Falls. They make visible the material used to in the original spaces of making and also convey the story of degradation over time. The process of drawing from the resources and relocating the materials of the historic structure instills a narrative of a new vision for the village of Turners Falls.





Figure 29: Interior Perspective along the Bridge



As the primary load-bearing members, they create a hierarchy of material and tectonic language through their robust and dominant presence. The Bridge, visible in Figure 29, is supported by the primary walls and passes through them creating tension and complexity in the space through contrast. As mentioned, bridges are an important part of the physical fabric of Turners Falls. The village's location as a waterfront community means that bridges have and continue to play an important role in moving people and goods over the canal and the Connecticut River. By creating a passage within the building which functions similar to a bridge, linking the main programmatic areas, the space forms associations with the surrounding context. Associations are vital to crafting a memory of a space by engaging the individual and providing cues which spur moments of recollection and investigation.

Materially, the bridge is comprised of steel and glass. Figure 29 shows the contrast between the finely articulated structure of the Bridge and the opaque, weathered brick walls which the Bridge passes through. A tension and complexity is created by setting the two main tectonic and material moves in opposition. This tension is integral in engaging the individual and evoking a sensory experience. This tangible tension causes further investigation by the individual as to the meaning of such a relationship. Curiosity and engagement cause associations to be made between the First Street Cultural Center and the physical fabric of the surrounding historical context. In doing so, memories of the industrial mills just a short distance away come to mind and a connection is formed between the past, present and future of Turners Falls.



In addition to their material and tectonic relationship to the surrounding historic context, the primary walls and the Bridge also serve as a reaction to the linearity of the site. The walls break down the scale of the building into smaller volumes which help the building to feel contextually appropriate within the adjacent residential structures. They stand thirty feet in height which is responsive to the maximum height allowed by zoning laws.

Through their positioning, the building is broken down into a series of zones which contain the 'create', 'educate', and 'engage' portions of the program as visible in the ground floor plan in Figure 30. In reference to the ground floor plan, the main entrance is defined by the extension of two of the primary walls. This draws people into the space from First Street into the main public gathering area. A café activates this multi-story space.

Also visible in Figure 30 are two large and centrally-located public areas, the café and gallery, which stand adjacent to each other on the ground floor. Bisecting them from above

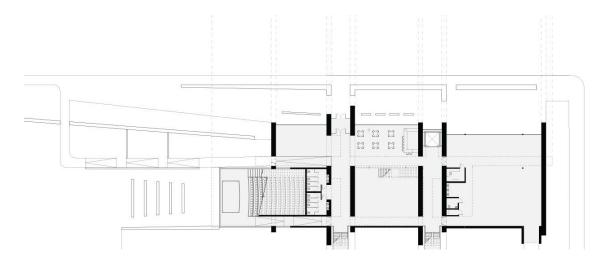


Figure 30: Ground Floor Plan



is the Bridge which allows passage through the second floor, light into the space from above and visibility to both the café and gallery below.

Visible in section A (Figure 31) is the relationship between the spaces in the 'make' portion of the building. On the ground level is the large, multi-story workshop and makerspace. The interior space is accompanied by a smaller exterior workspace which encourages people using the shop to bring their work outside to the edge of First Street to make visible the making inside. Individual artist studios are located above the makerspace and are

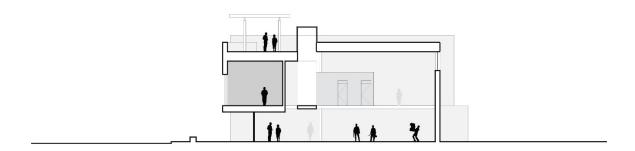


Figure 31: Section A revealing the makerspace, artist studios and third floor lounge

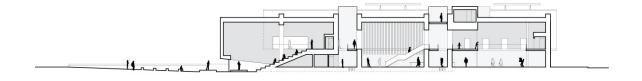


Figure 32: Longitudinal Section revealing the relationship between the three main programmatic spaces



accessible by the Bridge. Their location on the second floor allows for privacy and also creates elevated views out to the Connecticut River.

Visible in Figure 32 is a longitudinal section which communicates the relationship between the makerspace, the gallery and the performance space. The performance space, known as the 'engage' space, extends out into the landscape towards Avenue A. The left-most wall in the section becomes a backdrop for interior performances and a projection wall for an exterior performance and public gathering area. The 'engage' area and the reciprocal nature between the interior and exterior performance areas creates a zone of public gathering space closest to Avenue A which stands to make visible the variety of activity at the First Street Cultural Center.



CHAPTER 6

CONCLUSION

The relationship between the human body and spatial constructs is vital to our understanding of self and the world around us. Historic spaces have the ability to inspire wonder and awe within us as the tactile and visceral nature of them engages our senses and draws associations to past places and experiences. Spaces which evoke and engage our understanding of self and our place within time will continue to hold an important place in the built environment.

This exploration was rooted in understanding of how new spaces might work in harmony with historically significant structures and serve to heighten our understanding of context and history. The effort to create a space which sparks memory and engages our senses is something of a challenge as this action can be viewed as a largely subjective endeavor. What one person might find meaningful and engaging might be entirely different to another person. In this respect, developing a breadth of research into understanding how spaces evoke memory and how successful works of architecture embody this quality was integral to understanding commonality and overarching themes to work from.

While this was challenging, I found that rooting my work in physical making was essential in communicating and understanding the raw and imperfect qualities of spaces I encountered and were drawn to in Turners Falls. As a result, the most fruitful design strategies and ideas came through physical explorations in the form of parti models and hand drawing. In a sense, the space I sought to craft was one which engaged the mind



and body of an individual and the actions through the design process which proved most fruitful were ones which engaged those very same entities.

This is a powerful notion. To say that an architecture which engages the hand of the individual is rooted in a design process which engages the hand as well. If this is to be accepted, it becomes increasingly important that the physical process involved in crafting the spaces we occupy always have a place within our every-increasingly digital age.



APPENDIX

ORAL DEFENSE PRESENTATION BOARDS

A Visible History

How can new spaces evoke the layers of memory associated with historic places and utilize them to envision anew?

in new spaces in interesting suggests that exting, ungests that the tradition of historian introde with interest interesting in the second of the second of

With the industrial village of Turners Falls as the setting, this project is based in an evaluation of the existing tectonic, material and contextual relationship of historic spaces. Only then did I begin to design e see cultural space which is simed as reestablishing s

tradition of making in Turners Falls.

I have designed a new building in a site that is linked to the industrial buildings of Turners Falls industrial past, but also reconnects the city to its even deeper roots as a waterfront town on the Connecticut.

River.

The building is divided into three distinct, smaller volumes by a series of robust structural walls in response to the scale of adjacent structures. Aligned in

Thesis Presented by Nichelas V Jeffway faster of Architecture Candidate 2017

Department of Architecture / University of Massachusetts, Amherst

north-scalar cashio, takes primary organizate penetral voyages of texture and emercy of an industrial past. They come narrow vertical spaces remainsent of the alleys mod interjusing interesticial spaces visitin the village treets. Bunding transversely is a pathway composed of commercial past of the polyage pathway composed of the commercial past of the polyage pathway to the description of the pathway to the pathway to the description of the pathway to the pathway to the description of the pathway to the description of the pathway to the pathw

Carved by the Connecticut



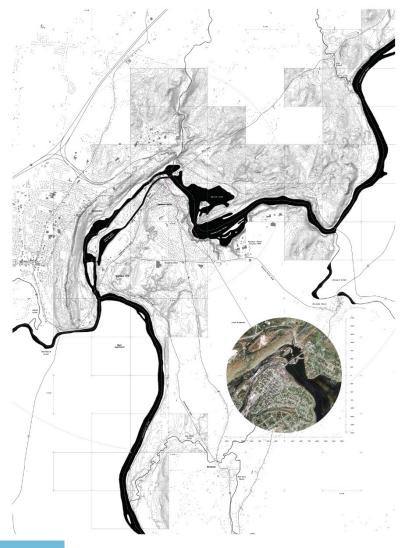




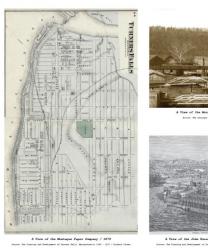
Ristoric View of the Connecticut River near Turners Falls



ontemporary Turners Falls / Set along the Connecticut River



An Industrial Past

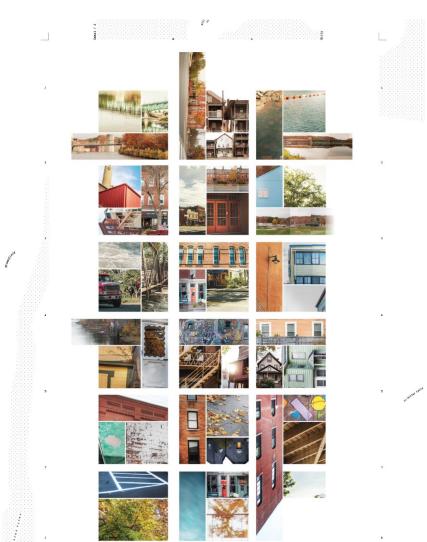












Contemporary Turners Falls







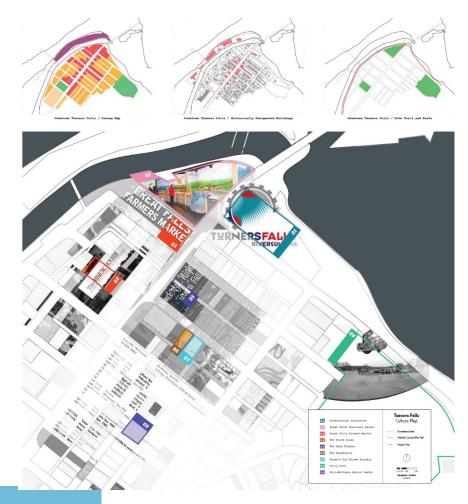






DATA & DEMOGRAPHICS OF TURNERS FALLS

1867		Turners Falls, Massachusetts A village of the town of Montague 42.6043" N. 72.5565" W Zip Code: 01376		Area: 2.317 m2 Elevation: 243'
year built				
	by ti	e numbers		
		median age		total population of montague
total population		menanage		,-
4,470	38.8	37.3	38.3	8,437



First Street Cultural Center



A perspective of the First Street Cultural Genter from the Sculpture Park





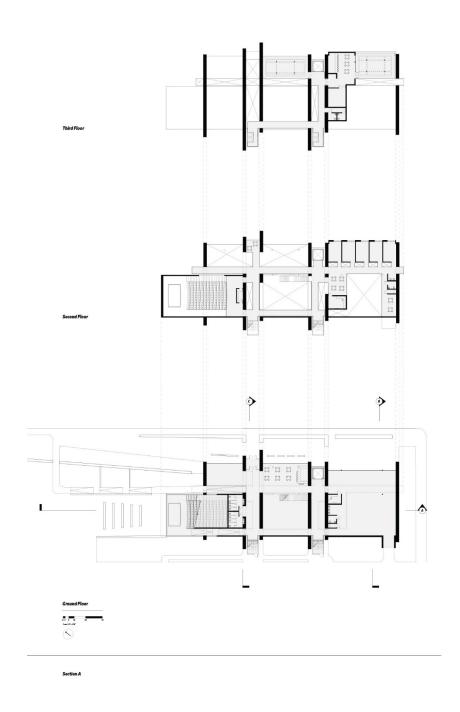


Looking towards Avenue A from project sit

Project site as emisting

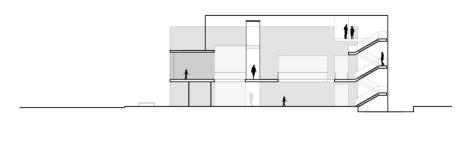
Looking out towards the Gill-Montague Bridg

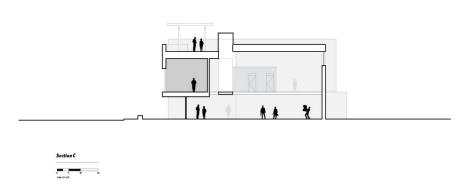














REFERENCES

- Byard, Paul Spencer. The Architecture of Additions: Design and Regulation. New York: W.W. Norton, 2005. Print.
- Campbell, Robert. "Jury Citation." Jury Citation: Rafael Moneo | The Pritzker Architecture Prize.

 The Hyatt Foundation / The Pritzker Architecture Prize, Web.

 http://www.pritzkerprize.com/1996/essay.
- Dodson & Flinker, Landscape Architects and Planners, Howard/Stein-Hudson Associates. Downtown Turners Falls Livability Plan. 2013.
- Dr. Kevin McBride. "Battle of Great Falls / Wissatinnewag-Peskeompskut" Department of the Interior. April 2016
- Dunmall, Giovanna. "The Resurrection of Nantes: How Free Public Art Brought the City Back to Life." The Guardian. Guardian News and Media, 12 July 2016. https://www.theguardian.com/cities/2016/jul/12/resurrection-nantes-france-how-free-public-art-brought-city-back-to-life.
- Luttrell, Aviva. "Montague Mulls Ideas for Block Grant." Turners Falls. 02 Mar. 2016. Web.
- McCarter, Robert. Carlo Scarpa. London: Phaidon, 2014.
- Montague, Town Of. "Town of Montague Planning Board" Planning Board. Web. http://www.montague.net/Pages/MontagueMA BComm/Planning/index.
- Montague, Town Of. "Town of Montague Planning and Conservation Department" Planning and Conservation Department. Web. http://www.montague.net/Pages/MontagueMA_Planning/index.
- Moore, Charles W. (Charles Willard), and Kent C. Bloomer. Body, Memory, and Architecture. Yale UP, New Haven, Conn., 1977. Print.
- Serra, Richard, Ernst-Gerhard Gulse, and Jean Christophe. Ammann. Richard Serra. Stuttgart: G. Hatje, 1987. Print.
- Sir Hugh Casson, 'Old sites and new buildings: the architect's point of view'. The Future of the Past, Thames Hudson, 1976.
- Urban Land Institute. A Technical Assistance Panel Report: Strathmore Mill Complex Redevelopment. 2010. Print. 11.
- Warren, John, John Worthington, and Sue Taylor. Context: New Buildings in Historic Settings. Oxford: Architectural, 1998. Print.
- Zumthor, Peter. Thinking Architecture. Basel: Birkhauser, 2015. Print.

