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Post-Industrial New England: Repairing the Voids

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POST-INDUSTRIAL NEW ENGLAND: REPAIRING THE VOIDS

A Thesis Presented

By

JAIME B. RYZNIC

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

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DEDICATION

Terry Ryznic, thanks for *everything*. Your love, empathy, constancy, support, and encouragement mean more than you know. Brian Most, thank you for your patience and understanding that *thesis must get done*. To my friends and family who suspect I might have dropped off the face of the planet five years ago when I returned to school, I love you and have missed you. Now that my thesis is complete you may be seeing more of me than you can stand. Last, Bennie, thanks for your unflagging enthusiasm on days a heavy workload meant walks were too short or skipped, you are a good boy.

ABSTRACT

POST-INDUSTRIAL NEW ENGLAND: REPAIRING THE VOIDS

MAY 2013

**JAIME B. RYZNIC, M. ARCH, UNIVERSITY OF MASSACHUSETTS
AMHERST**

Directed by: Professor Joseph Krupczynski

Decaying urban spaces are common in post-industrial New England. When manufacturing activities withdrew from New England they left holes in the urban fabric. Physical absence of these former economic drivers is easy to note in empty mill buildings, warehouses, and storefronts. Farther reaching impacts of this exodus are less apparent. Jobs went with manufacturing. Raw materials needed to be harvested and made available to manufacturers; the finished products needed to be distributed, sold, and moved; supporting businesses provided for these needs. Many other groups supported manufacturing; some through the management of the companies, some catered to workers' needs, or the needs of workers' children and families. This network of groups and individuals connected to industry made up vibrant communities in the heyday of manufacturing in New England. When manufacturing left many of the groups providing support functions collapsed. Many people moved away, or if they stayed they were left unemployed or underemployed. Whole communities were damaged when manufacturing left New England. Many have not yet fully

recovered. The goal of this thesis is to propose a path toward the revitalization and repair of the urban fabric of depressed post-industrial communities in New England.

Many post-industrial New England communities have lost their identity. These places have empty buildings, empty lots, and their main streets, former “downtowns,” are quiet. There is little to recommend these areas as a place to be. These depressed and decaying places need revitalization. They are no longer centers of manufacturing or industry; they need a new identity, one that reflects what they are now and what they would like to become in the future. Revitalization should be grounded in a study of the unique place it addresses. There are communities and inhabitants present in even the most depressed places. These groups need to be recognized and their needs identified before revitalization can be undertaken. Revitalization should be inclusive. Residents should feel encouraged to stay in, and be proud of, their community. Revitalization should be sustainable; socially, ecologically and economically. If revitalization of a depressed area calls for attracting more residents and businesses, those targeted to inhabit the revitalized space should fit into the existing community, not displace it. This thesis proposes a revitalization of a depressed post-industrial area of Millers Falls, Massachusetts in the vicinity of East Main and Bridge Streets. This revitalization proposal will be carried out within a framework of study of place, inclusivity, and holistic sustainability.

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CHAPTER 1

INTRODUCTION

1.1 Background

Growing up in Western Massachusetts in the 1980's, I was surrounded by old mill buildings. Some mills had been repurposed to accommodate new businesses, offices, stores, or even housing. More sat empty and dilapidated. Industry had left New England before I was born. In my lifetime, Holyoke and Springfield, Massachusetts, have had poor reputations. They are troubled cities plagued with vacant buildings and crime problems. One hundred years ago those same cities were thriving, vibrant centers of manufacturing which made world famous goods. They were desirable places to live and work. The beating heart of those cities was industry. Industry was what drew people to live in Holyoke, Springfield, and manufacturing cities across the United States. When manufacturing left, the cities lost their attraction as a place to be. Many people left to find work elsewhere and without customers many businesses failed.

The cities of Western Massachusetts are not the only victims of the exodus of industry from New England. Many smaller manufacturing centers were once sprinkled across Western Massachusetts; Ware, Thorndike, Ludlow, Turners Falls, Millers Falls, and many more small villages grew up around manufacturing. The declining economy, move away from hydro power, shift away from rail transportation, change in manufacturing process, and availability of

cheaper labor elsewhere all contributed to the demise of manufacturing in Western Massachusetts. The economic base of the area has shifted from a manufacturing industry to a service industry. Residents have changed from makers to consumers. The most vibrant cities and towns in Western Massachusetts today are centers of education. Former places of manufacturing are depressed, often abandoned, and generally behind the times.

Millers Falls, Massachusetts, is such a depressed post-industrial place. It is a place which is close to my heart. It is a place of natural beauty and outdoor recreation, in particular bike riding and fishing, favorite activities during my youth. Millers Falls was once home to the Millers Falls Manufacturing Company., a manufacturer of hand and power tools. My maternal grandfather, my early role model and an all around handyman, was a big fan of MillersFalls tools. I inherited a numbers of his tools when he passed away. I restored them and used them during my apprenticeship at Charles Shackleton Furniture. They are special to me, and connect me both to my grandfather and to the industrial heritage of Western Massachusetts, my home.

This thesis explores a path towards the revitalization of depressed post-industrial places. Successful contemporary cities were analyzed to identify what is required for a community to thrive. Research of architectural literature provided a framework for reaching solutions to the problems created by the exodus of industry. That framework formed a set of requirements which led to a master plan and then the program for a Community Hub in Millers Falls, Massachusetts.



Figure 1: Millers Falls Tools advertisement for a plane like one I inherited from my grandfather.

1.2 Terms

The research section of this thesis focuses on centers of activity also identified in this document as downtown, city center, town center, village center, or more simply as a node. For the purposes of this document these terms will be used interchangeably.

For the purposes of this paper a definition of sustainability is necessary. For purposes of this paper, references to sustainability will use the definition of the word described in the 1987 Report of the World Commission on Environment and Development:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

Further, sustainable design should meet the needs of the people they serve, the planet we all inhabit, and lastly, in order to be viable they must also be economically sustainable.

CHAPTER 2

FUNDAMENTAL NEED

2.1 Sustainability

All projects designed today must be sustainable. Human actions have damaged the environment and we have a responsibility to restore it. We should all consider how our actions impact the environment we share. We can modify our actions to have a positive impact on the environment. We need to think of the planet as a shared resource which our species has a responsibility to care for. Stewardship of our planet is not a new concept. Our grandparents were raised with the idea that people are caretakers of the planet. Generations before us were taught that they must nurture the planet, so it in turn can continue to provide for the needs of people. The Iroquois held that the impact of every action on the next seven generations should be considered in all decisions. Only in recent history do we make decisions for immediate gratification with no thought of the future.

Modern transportation has created a perceived separation from the natural world and plays a strong role in this disconnection. Once, people lived much closer to the earth. They raised much of their own food, or they acquired it from a near neighbor, someone with whom they had a relationship. They were familiar with the inputs and processes that produced their food. Goods also originated closer to home. In that paradigm, adding toxic compounds or taking dangerous

short cuts would have been unthinkable. End users would have refused such products and suppliers of such goods would not have stayed in business.

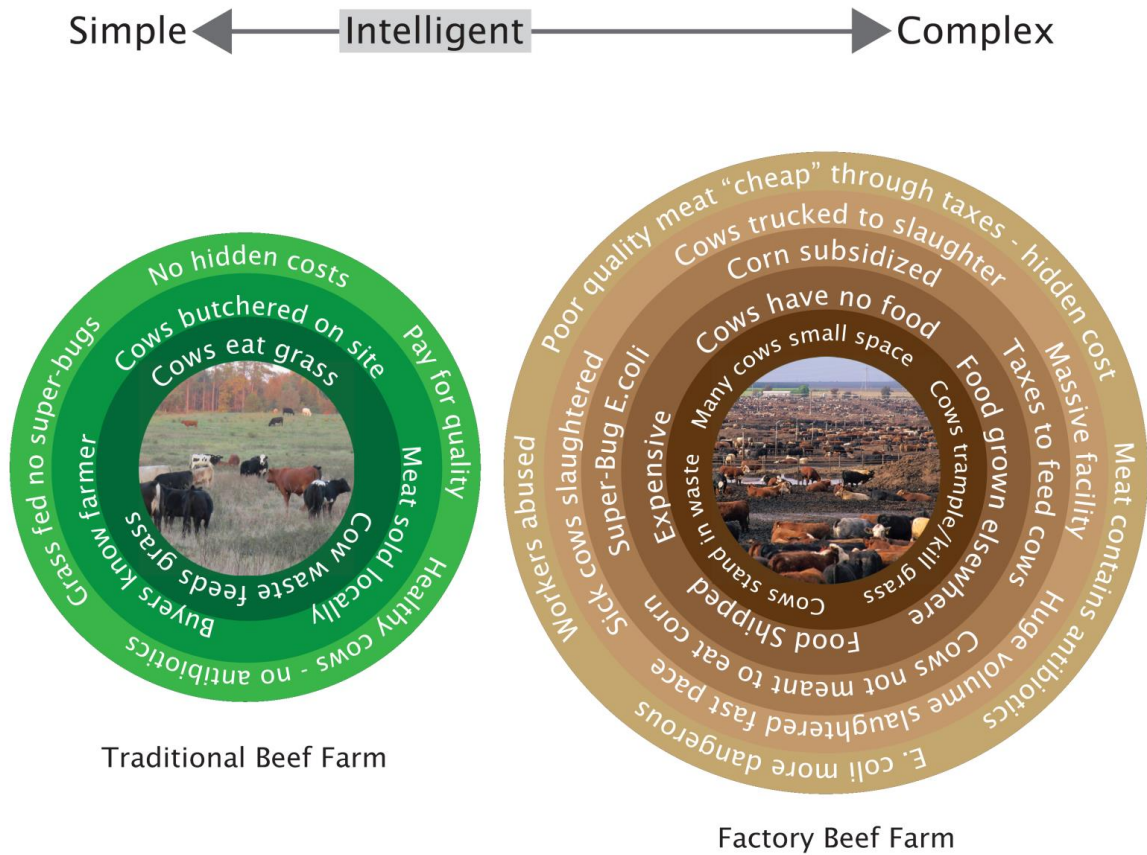


Figure 2: Processes have become unnecessarily complex, to the detriment of the products created.

Today we are far removed from the sources of our food. Many products we buy are produced on the other side of the world. Distance, anonymity, and absence of a relationship between producer and user conceal shortcuts, cheats, and questionable composition of products. The bottom line is no longer, "Are my

actions creating a better world for the seven generations to come?" The only important consideration is how much money the product makes. The expanding distance between producer and user makes the conscience grow weak.

2.2 Technology

Inappropriate use of technology is to blame for the state of the environment. Not to vilify technology as a whole, technology has given us many important advances; however, misapplied technology has resulted in some very poor decisions. For example, most of the corn, a food staple for humans and livestock, grown in the United States is a variety called dent corn.¹ This corn is grown because it produces high yields, and because of heavy subsidies is relatively inexpensive to produce. The problem, raw dent corn is not edible. Unless it is mechanically ground into flour or soaked in lye to remove the hard shell it has no nutritional value. Technology bred an overgrown grass to grow bigger and faster, then created a process by which to render it edible. It would be more sensible to start with a nutritious food and figure out how to produce more of it.

Often, layers of new problems are created by inappropriate use of technology. Growing thousands upon thousands of acres of a monoculture like dent corn harms our environment. Native plant communities contain perennial plants which hold vulnerable soil in place and retain moisture. These plants synthesize free sunlight to grow, when these plants expire they fall to the ground,

¹ "Corn." How Stuff Works: Food and Beverage

decompose, and become soil which nurtures the next generation of plants. When corn or any annual crop is grown on a massive scale, all other plants are removed by mechanical tilling or chemical means. Monocultures are highly susceptible to damage by unfavorable weather and pests in a where native, diverse plant communities are not. They require huge inputs of energy and fertilizer, while native plants grow from sunlight and fertilize themselves. Much of this man made fertilizer cannot be absorbed by the shallow roots of annual crops and runs off to contaminate watersheds, creating problems. The shallow roots of annuals are also unable to hold the soil in place like native plants when wind or water would move it. Monoculture crops have heavy inputs of chemicals, fossil fuels, and labor and they take nutrients from the soil without replenishing it.

2.3 Waste

Humans are the only creature to create waste which is not useable by any other organism.² In nature, waste from one system is food for another. Successful ecosystems are closed systems. The only outside input to the system is sunlight, all waste is reused within the community. Simplicity is key to an efficient system. Often, the simplest solution is the most efficient.

² McDonough, William

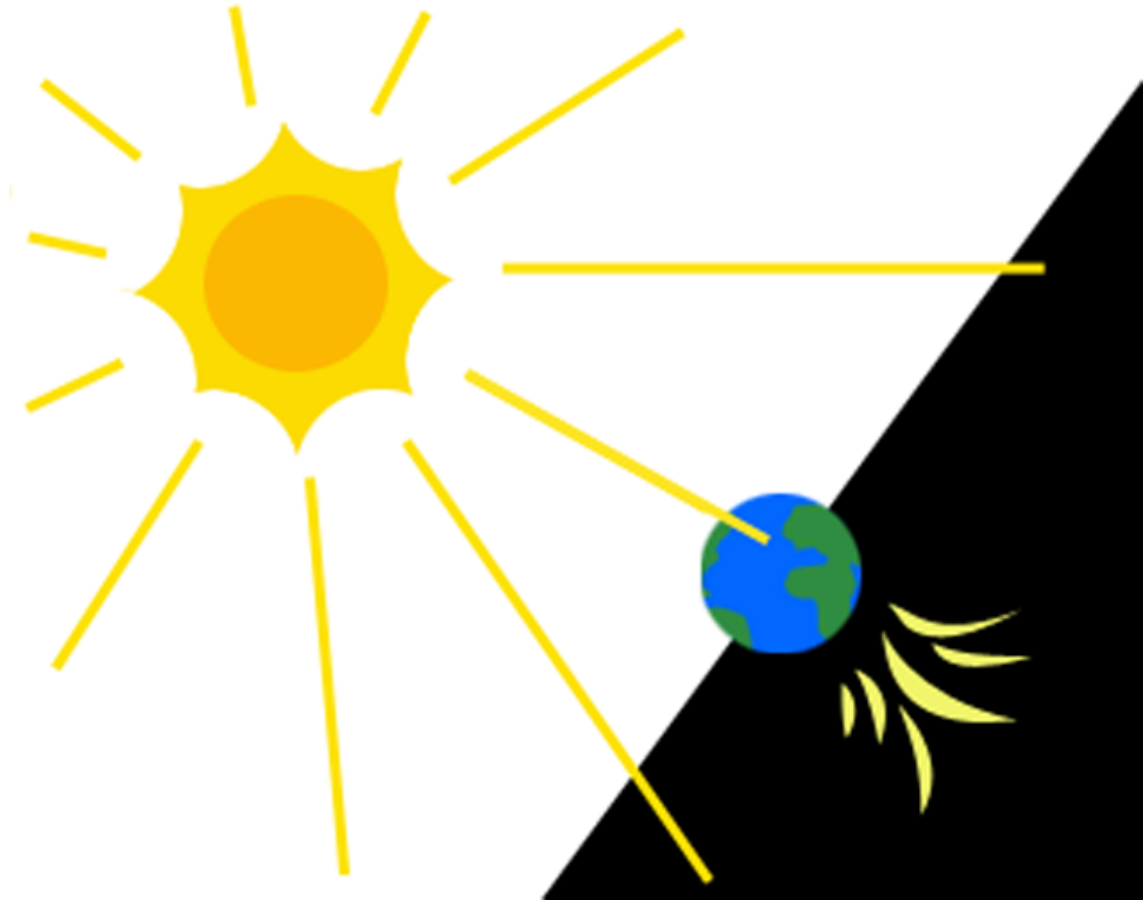


Figure 3: Solar energy is the only energy input into the closed system in which we live, Earth.

The United States has a wasteful, short-attention-spanned, extractive, consumer culture. We are consumers; we buy almost everything and produce very little. Price point, rather than quality or conscience dictates our purchases. In a culture where people considered how their actions impact the next seven generations there would be no Walmart.³ We would demand that companies provide employees health care and fair wages here, in the United States. We

³ Greenwald, Robert

would respect local family owned businesses. We would not send our money out of our communities. We would buy products that are designed to last and be of use for a long time.⁴ We would build stronger communities, and improve quality of life for our citizens.

Passive solar home champion, Amory Lovins, and green business guru, William "Uncle Bill" McDonough, see business as a possible solution to our environmental issues. Traditionally viewed as part of the problem, big businesses have big power. Going up against big business will yield little result; working together with the big companies will provide better results. The power of big business could be harnessed to help solve our environmental problems. These businesses want to sell their products and will do what is necessary to sell as much product as possible. If consumers make it clear that they want and will pay for sustainable products, businesses will work to make such products available. Educated consumers can spend their money on worthy products to create positive change.

2.4 Moving Forward

The environment has been severely damaged by human actions, and our buildings are making the problem worse. The traditional practice of building is to create a generic box, one box "fits all," no matter where in the country that box is built. Mechanical systems are added to support life in the box. Energy is poured into buildings to make them safe to inhabit. This model is wrong. Buildings should

⁴ Leonard, Annie

be individually tailored to their unique requirements: users, site, climate, and program. Buildings should be designed to support their inhabitants with minimal input. A building that is built right should incorporate passive strategies wherever possible. The remaining, active inputs to the building should not come from fossil fuels. Where- and whenever possible the input to buildings should be from renewable resources.

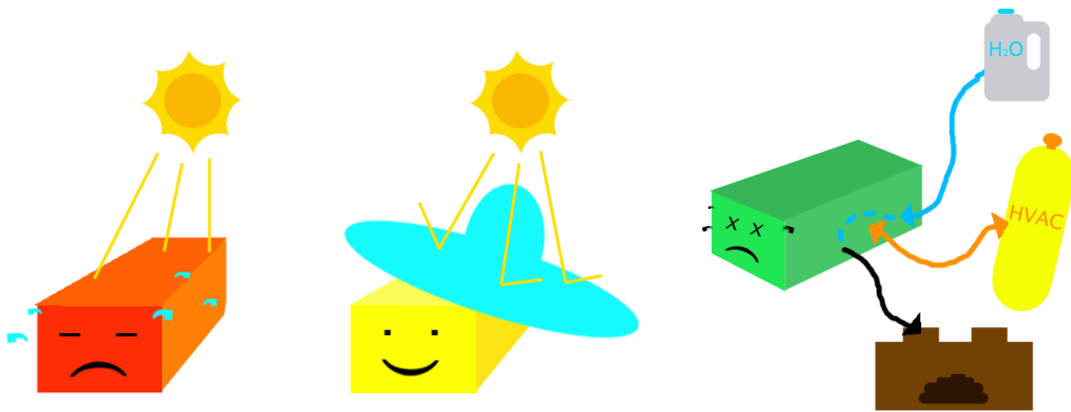


Figure 4: (left) The generic box is not dressed for its climate and overheats in the sun. A site specific building is dressed appropriately; large overhangs protect it from the sun in the summer and all solar gain in the winter. (right) Without active mechanical life support systems, inhabitants would not be able to live in the generic box.

There is a stigma that building green, healthy buildings is expensive. The cost of certification by programs like LEED plays into the misconception that sustainable building is expensive. Many are unwilling to pay for the prestige of a certification, but would like to help heal the environment. Better coordination

design can produce buildings that perform much more efficiently at the same cost as traditional construction. If people had a better understanding of life cycle costing, construction options, and the pleasure of inhabiting a building more in tune with nature, they would demand better buildings.

The path to healing the environment and creating better buildings will be paved with knowledge. The standard box is cheap and easy to build. Building owners often makes design choices based solely on cost. They do not have enough information to consider the long term costs of their choices, environmentally or financially. A wider availability of classes for homeowners and building professionals would initiate positive change in building practices.

CHAPTER 3

RESEARCH

3.1 Global versus Local

Technology has changed our world a few generations. “Local” is no longer local. Businesses and organizations can be local in the traditional sense and, through the internet, have a world impact at the same time. Groups physically located in one community may be part of a digital community which spans a much larger geographic region.⁵ Community no longer means a group which shares a physical place in common. Technology has brought both advantages and disadvantages with globalization. On the positive side, information and knowledge are now widely available to anyone with internet access. At the same time, some places have lost qualities which once made them unique. Technology has homogenized “the city” at the expense of regional traditions and culture.

3.2 Capitalism

People, planet, profit in the Triple Bottom line are arranged in order of priority. Priorities in the United States are out of line. In our capitalist economy profit is put before people and planet. Capitalism values freedom to compete and consume over social justice. The free market economy, deregulation, and privatization of public housing in Chicago lowered the quality of life for many

⁵ Sassen, Saskia

residents. Local government failed to provide support for existing communities, “displacing the most precarious members of the community,” working instead to bring in higher income tenants. Unfortunately, those who need the most help from the state often receive the least. Necessary services like health care are often for-profit enterprises where the bottom line becomes more important than those served. Affordable housing and neighborhood integrity are two of the most basic requirements for social reorganization and self determination. It is scary that we live in a world where, “global capital has reached such a point that both the physical and intellectual landscape have been completely purchased.”⁶

3.3 Successful Downtowns

Robertson describes traditional downtowns as diverse, disordered, having friction, and vibrancy.⁷ He criticizes contemporary downtowns as unoriginal, indistinct, and sterile. He suggests that divisions of class, race, and culture which still permeate our culture dictate the composition of new downtowns. Attempts to make downtowns “safe” remove substance and character. Poorly designed downtowns focus too narrowly on a certain “desired” sector of the population, and try to discourage use by those with whom the focus group is nervous to brush elbows. The result, predictable, boring downtowns which are neither site specific nor reflective of its users.

⁶ Tucker, Daniel et al

⁷ Robertson, Kent A.

Safety, or the feeling of safety, is important to a successful downtown. Users want to inhabit spaces without fear of harm. Safety is important, however, downtowns should not be too tightly controlled. Robertson makes example of several very successful Manhattan restaurants which are located in high crime areas. Patrons feel safe despite neighboring crime and the businesses draw large numbers. The presence of safe, successful businesses in blighted neighborhoods can also serve as a catalyst for change. A successful downtown should be safe but, potential users should not be excluded by demographics.

3.4 Requirements of a Successful Downtown

As retail centers have anchor stores, so downtowns need anchor attractions. Stores, government buildings, services, restaurants, or other attractions may provide a draw to visit downtown. Fitness centers and regular community dances can draw people downtown. Special events can also make a name for a place.

Successful downtowns should be human scaled and pedestrian friendly. They should have ample parking so that visitors from outside can leave their cars and walk. Historic buildings should be kept in good repair and used to good purpose. Historic Faneuil Hall in Boston has become an anchor, with a festival market and occasional political displays. Successful downtowns provide places for downtown workers to frequent on lunch hour or after work. In order to be accessible to all, successful downtowns provide public transit.

3.5 Government Buildings Bring People Downtown

Successful downtowns and city centers work for their communities. They are not just places to play or spend money. They have places of function for the community. Many successful communities have busy post offices, town halls, libraries, community centers, police and fire departments, or other government buildings in or within walking distance of downtown. Many blighted downtowns began their downward spiral when one or more of these services moved away.

Amherst Massachusetts has a thriving downtown. Philip Langdon attributes Amherst's success to its downtown public buildings.⁸ In the 1980's Amherst's busy downtown post office, built in 1925, was too small and outdated. The Postal Service wanted to abandon the building and build a new facility a short distance away. A public outcry convinced the Postal Service to keep the downtown branch open and build the new state of the art facility on University Drive. The downtown post office remains a vital downtown landmark. A similar outcry was raised to talk of moving the town hall in the 1990's when it had become dilapidated. Town hall was rehabilitated and remains a center of activity. These two buildings, new police and fire stations, Bangs Community Center, and Jones Library stimulate lots of activity in downtown Amherst. People come downtown to do an errand at those places and often also stop for coffee, food, or a purchase. They might not stop in town and spend the additional money if the errand took place elsewhere.

⁸ Langdon, Philip

Experts say public buildings are important both socially and economically. “A typical public library draws 500 to 1,500 people a day,” says Robert Gibbs of Gibbs Planning Group in Birmingham, Michigan. “That’s close to the draw of a small department store. A typical town hall draws 200 to 500 people a day.” Post offices, town halls, libraries, community centers, police and fire departments, and even courthouses are all important to the vitality of downtowns. In many communities, arts centers also play a role. A \$900,000 Antrim, New Hampshire town hall renovation was passed because loss of the town hall would have displaced a theater troupe which performed in an upstairs auditorium.

“When public facilities move out, the downtown may spiral downward as local people invest their energy elsewhere.” -Langdon⁹

3.6 Complexities of Downtown Revitalization

Once, downtown retailers provided a wide range of goods of use to a broad spectrum of patrons. Customers with a range of interests, backgrounds, and incomes visited downtowns. Then, in the 1950’s the creation of the Interstate Highway System and new car ownership caused a sharp decline in public transit ridership. The Interstate Highway System hurt downtown retailers. The highways were built for speed and many bypassed town centers because routes through town were “too slow.” Commuters no longer had a reason to drive through bypassed towns and impulse shopping ceased. The Interstate Highway System also enabled the new trend of suburban living. Those with means left urban

⁹ Langdon, Philip

centers and moved to the country. Many of these new suburbanites stopped using public transit when they bought their first cars. The American Dream of owning a house and land could be realized in the suburbs. Americans abandoned city centers and those urban spaces began to decay. Once vibrant centers of activity sat quiet, patronized only by those without means to move to the suburbs.

While the suburbs were once a place for those of means to live, recently a movement back to the city center has begun. Those with means are moving back into urban downtowns. They seek shorter commutes, round the clock activity, walkable proximity between work and play; vibrant downtowns can provide all these things. Some people left in the suburbs may be stuck. Rent is high in desirable city locations, despite long commutes and dependence on the automobile suburban housing may be the only affordable option. Today, downtown retailers market to a narrower group. Retailers target those with greater income, and the products and goods they sell may be highly specialized.

There are many complex factors involved in drawing people back to downtowns. Suburban residents may feel they are inconveniently far away. Kent Robertson theorizes that suburbanites may not “like to mingle with the diversity of people who frequent downtown.”¹⁰ Instead, suburban residents are drawn to suburban shopping centers, designed to draw people of similar economic status and background. Suburban malls are focused on suburbanites, they have a

¹⁰ Robertson, Kent A.

much narrower group of patrons than traditional downtowns. Shopping centers are located convenient to the suburbs and cater to suburbanites.

3.7 Who is Here Now? What is Working?

Schwartz reminds us that there are “wide swaths... invisible to residents of the region who rarely venture off the major arterials during their daily commutes...”¹¹ It is easy for residents and designers to miss exciting occurrences and spaces within the city. Before design interventions are begun, it is imperative that designers explore and get a sense of the place they are seeking to change. Who and what are already here? How are they interacting? What here is working? What communities are here? Who already loves and wants to revitalize this area? Who will the design serve? It is important to be inclusive of existing communities. Revitalization may include attracting new residents, but it should not displace the current citizens.

Markus Miessen councils, it makes sense to respond to the city that exists rather than design for a theoretical city. Design needs to happen on the ground, in the middle of things. Abstract concepts hatched in a sterile studio environment cannot meet all the needs of a real place. Site visits, observations, interactions and meetings with the local communities will inform the strongest designs. Miessen says we must connect with and design to support what is here, now.¹²

¹¹ Schwartz, Terry

¹² Meissen, Markus

Petrescu describes “public” and “community” as those things and spaces which are understood as “common.” Successful downtown revitalizations must include public and common areas as well as private ones. Spaces which appear empty may not actually be devoid of purpose. Petrescu urges designers working in public space to “first identify claims to it.” Once users of a space have been identified, the community should be involved in designs for their space.¹³

3.8 Ownership

Gentrification is a serious problem. Too many times redevelopment can displace residents. Sometimes this happens directly, as when a low income housing project is torn down and replaced with a higher rent use. Other times the displacement is less obvious, as when rents are raised too high for residents to afford. Sensitive design should avoid displacement of residents if at all possible. Involvement of the users or “owners” of a space can help in meeting their needs. An urban space which can provide for the specific needs of a community will entice community members to stay there. Keeping housing and living costs reasonable will allow them to stay. The authors of *Trashing the Neoliberal City* ask a number of important questions when considering urban revitalization:

“How should we interact with our neighbors? What kinds of reforms do we want from the state and what kinds of collective infrastructures should we be building ourselves instead? What kinds of spaces encourage resistance, free movement, and the well being of the

¹³ Petrescu, Doina

whole population? What would it take to denormalize capitalism in the 'global' city (of Chicago)? Is gentrification inevitable or "natural"? Is there an alternative?"¹⁴

Miessen objects to judgments of "high" and "low" culture. Cultures grow from rich traditions and every culture should be respected.¹⁵ Holyoke Mayor, Alex Morse, respects the diverse cultural backgrounds of residents in his city. He has taken advantage of an opportunity for community participation in the Knowledge Corridor passenger rail project. All residents of Holyoke were invited to participate in decisions regarding the new train stop. Morse is using governmental investment in public infrastructure as a tool to stimulate private interest, and financial and social investment in Holyoke. The city of Holyoke is attempting to include and interact with residents of the Depot Square area as they move forward with designs for their neighborhood. Marcos Marrero states Holyoke's goal for Depot Square, "As we grow, we want to grow together."¹⁶

3.9 Politics

Access to public space can be the topic of heated political debate. As in the political arena, there are many different groups which make up a community. These groups hold diverse views and beliefs. Getting them to agree on anything, or even just coexist peacefully in the same space can be a challenge.

¹⁴ Tucker, Daniel et al

¹⁵ Meissen, Markus

¹⁶ Marrero, Marcos

Aeschbacher would submit that public spaces should be places where various groups can meet and debate.¹⁷

Till reminds us that architecture is inherently political. Architects, clients, and users bring their views into every project and appropriate designs reflect those political intentions. Till expresses a desire to “move away from the tendencies of the dominant social and economic structures,” he sees architecture as a vehicle to subvert dominant cultural norms. He says that, “community is manifested in the production of its space,” Spaces should reflect the views of those who will use it. Spaces in alignment with users’ goals will be beneficial, while spaces at odds with the users’ goals may be repressive. Langdon states that, “public buildings that generate community activity and social life are (more) critical to a downtown,” that is, those that promote interaction and conversation.¹⁸ Architects must listen to and work with clients and end users, research and understand the site, and design with client, users, and site in mind.¹⁹

3.10 Character

Sustainable and walk-able places are talked about a lot these days. Resource saving, pedestrian friendly villages are human scale, comfortable, and convenient as well as good for the ecological health of the planet. Downtowns and other nodes of activity are central to the walk-able village. The close proximity to services, goods and entertainment makes downtown an attractive

¹⁷ Aeschbacher, Peter

¹⁸ Langdon, Philip

¹⁹ Till, Jeremy

place to be. Successful downtowns have a sense of identity, a special character, history, and provide important functions to a city or town. They have human scale places to pause, to rest, to interact, and to play. The architecture, the landscape, and the visible utilities all have an impact on how a downtown feels. It should be integrated, not Stepford matching, but all pieces should complement one another.²⁰

3.11 Change by Design

Miessen says, “Kill your idols: don’t work in their office.” This provocative statement succinctly expresses, the old paradigm of design needs to be left behind. Abstract formal designs or sculptural objects designed with only aesthetics in mind will not meet the needs of revitalizing urban communities. Only real time, in person, community engagement will allow designers to identify and meet all the requirements of urban revitalization. Saskia Sassen describes design as, “a blending of artistic and money-making work,” and as an, “...intervention that bridges the virtual and material world.”²¹ Today designers need to keep the art of design and balance the challenges of economic recession. Digital technology expands design possibilities and brings in new challenges. The internet facilitates faster communication and removes personality from interactions. Successful design today can only happen through interaction, community participation, and sensitive negotiation. These interactions must happen through face-to-face dialog. Pop-up projects are a perfect vehicle

²⁰ Segedy, Jim and Tom Daniels

²¹ Sassen, Saskia

for the necessary discussion between community members and designers.²² Temporal designs can be used as a political tool to encourage positive change, with the architect acting as a “provocateur of conscience.”²³

3.12 A Beginning

Tactical Urbanism, in its many forms of delivery – pop-ups, Parking Day, Team Better Block, and guerilla gardening to name a few - can raise community awareness, and stimulate interest and participation. Projects like these bring attention to lack of connection, missing parts of the puzzle, or draw attention to positive but previously overlooked parts of the community. Temporary installations can remind communities of their history and are a great first step in revitalizing downtowns’ strengths and they can (re)unite groups. Pop-ups can be part of a deliberate approach to initiating change. It is important to return a sense of place to disenfranchised spaces. Ideas for planning should be local in the physical sense, and tied to their communities.²⁴

Temporary projects can begin the process of change necessary to revitalize our decaying cities. They can immediately improve the look of vacant buildings and lots. Temporary uses can promote positive change, growth opportunities and revitalization. They can be a test for more permanent uses and are often easier to get approved and to get people involved in. Often people who would not have agreed to participate in a permanent installation will agree to

²² Malloy, Jennifer

²³ Meissen, Markus

²⁴ Street Plans Collaborative

participate in temporary one. Temporary installations test designs at low risk, with possible high returns. Deliberately temporary, short term projects can be used as “economic development infill tools” and as “interim economic stimulus,” and can be especially useful in areas where the “market has not arrived.”²⁵ The most effective pop-ups are low cost and limited in duration. Successful pop-up projects “surprise, provoke, and entertain.”²⁶ Tactical Urbanism interventions are designed for capacity building through temporary processes. They provide context for social interaction and inclusion, and in the best cases endear a city to its residents. Pop-ups can be used to break down barriers, stereotypes, promote interaction between groups, create new relationships and begin the process of change. In *How to make a community as well as space for it* Doina Petrescu says that successful interventions, “increase intensity of living.” A range of scales of intervention, from “microscopic attempts” to “governmental interventions” are needed to create change on the scale required for downtown revitalization.²⁷

²⁵ Malloy, Jennifer

²⁶ Schwartz, Terry

²⁷ Petrescu, Doina

3.13 Growth

Shrinking cities are widespread phenomena in the United States.²⁸ As more and more jobs and industries move out of our cities and out of the country, our urban areas decay. Until recent decades, industry was a huge driver of the economy of the Northeastern United States. Industrial centers, like Holyoke or Millers Falls, Massachusetts, were places where people were proud to live and work. Now, post-industrial, shrinking cities “tend to suffer poor self-image.”²⁹ Existing economic models are driven by growth. Growth within the US is not occurring and cannot happen when we send so much work outside the country. We need a new model and we need to stop exporting jobs. We are providing stimulus for growth to the countries we outsource to. We are not in a time of growth, and it is not realistic to always be in a time of growth. Growth cannot continue forever, we need a sustainable model, one in balance which can handle the ebb and flow of the economy. We need to stop hemorrhaging work and resources away and we need a new policy which deals in a different type of capital, social capital.

We need to redevelop and revitalize our urban areas. Many of our shrinking cities are littered with vacant lots and buildings. Vacancy is equated with blight. Deserted, dirty and rundown properties are an eyesore. They lower morale and property values. These spaces should be repurposed. Empty buildings should be given new purpose, new life. Empty lots could become

²⁸ Malloy, Jennifer

²⁹ Schwartz, Terry

community spaces. Open spaces within the city where people can gather are necessary for a strong urban fabric. These blighted, undesirable places can be transformed into assets.

3.14 Privatization of Public Space

Public space is not truly public. “Public” defined by Merriam Webster: “of, relating to, or affecting all the people or the whole area of a nation or state.” Even spaces intended as totally inclusive will not feel so to everyone. Public space, as the name implies, is not private either. Rather than being simply one or the other, public space is better defined as landing somewhere on a spectrum between public and private.

In this country nearly all space is owned; by the government, by a private owner, or by a mix of the two. All kinds of spaces make up the public realm; outdoor spaces, shopping spaces, business spaces, entertainment spaces, and more are all public spaces. Many public spaces are privately owned, for example corporate plazas. These can be public spaces built to earn the developer extra stories or square footage, public in name but not in practice. In all public spaces there are competing claims for the use of public space. Designers must consider the needs of all users of a public space as well as the needs of the owners. It can be difficult, but is necessary, to find a design solution which meets the needs of all users.

Access to a public space is a requirement for anyone who would be a user. Sometimes the owner or a group of users of a public space have a vision of

who they would like to include in the space. Peter Aeschbacher believes that public space can be programmed in one of two ways; for the ideal of democratic participation or for a vision of material space, not for both. According to Aeschbacher, democratic participation can occur only if everyone is allowed into a space. When everyone is allowed into a public space, multiple groups with multiple standards of conduct will meet and so must interact. The presence of some groups might discourage the presence of others, affecting the participation levels of all groups and possibly prompting some to avoid the space. In Aeschbacher's second model, a vision of material space, the physical public space symbolizes the city, or as Aeschbacher says "the larger civic entity." In this model, as in society, appropriate citizenship is expected; no begging, no loitering, and no aggressive behavior. This type of model requires a high degree of control to succeed and can intentionally be exclusive.

Where there is very little control over a public space there is a strong chance that the space may be taken over by one group of users. Control is necessary to guarantee that public spaces will remain accessible to all.

3.15 Control and Function

Everyone wants safe, healthy and fun public spaces, but not everyone defines these qualities in the same way. Control and function are two means to address safety. A strong sense of function in a space will attract a certain set of users who may hold certain standards of behavior. Control allows for the modification of undesirable behaviors in a wide range of users.

Small local parks, especially community gardens, may succeed in having a strong function and strong control. They may have a small and focused group of users. This group may share a common code of conduct and a sense of responsibility to one another as well as their common purpose. In a large public space with limited control and a wide range of users, groups may have no interest in the others, people come for different reasons, making large spaces with ill defined function hard to control.³⁰

Other public spaces might have strong control and poorly defined function, Users of the corporate plaza, public only because it benefitted the owner during construction, may not feel comfortable entering the space. It is not programmed for them and they feel unwelcome. If they had a purpose in coming to the space they might have a sense of belonging. Though the corporate plaza is tightly controlled, with security cameras and a guard, there may be no users present to watch. Similarly, problems can arise in a public space with strongly defined function and weak control.

It is hard to design a public space on a grand scale, or for a wide range of users. There is not one group which makes up “the public,” rather there are many individuals and many sets with individual needs. Aeschbacher suggests three strategies for designing public spaces. First he proposes *accommodation*, creating a clearly defined space for multiple publics. Second he suggests *participatory process*, engaging all users of a space by formally inviting all to

³⁰ Aeschbacher, Peter

participate. Lastly Aeschbacher suggests *engaging spaces of last resort* and utilizing space to empower marginalized groups who will use the space if it is designed for them. My solution would roll all three of Aeschbacher’s strategies into one; begin by identifying the potential users of a public space, interact with them to understand what they want to do in that space, and then design for the client and the actual users of the space. Trying to design for a generic “public” will result in a space with poorly defined function and few users using the space as intended.³¹

Much of Teddy Cruz’s work is about control and function. He works to empower groups who have traditionally been marginalized to take control. In his Casa Familiar project he takes the unusual step of making a neighborhood a developer. The neighborhood invests incrementally in small scale projects which are affordable to those in the community. The affordable infrastructure gives community members a boost towards independence or entrepreneurship.³²

³¹ Aeschbacher, Peter

³² Cruz, Teddy

CHAPTER 4

DESIGN

4.1 Context: Millers Falls, Massachusetts

Millers Falls is one of the five villages which make up the town of Montague in Franklin County, Massachusetts. Millers Falls was once vibrant, a place of movement, a place of making, a place to be. The retreat of industry and the subsequent population decrease in the village have relegated the center to a sleepy, partially vacant backwater. Community interest, engagement, and investment are necessary to revitalize the post-industrial village.



Figure 5: The village of Millers Falls includes land in two towns, Montague and Erving, MA.

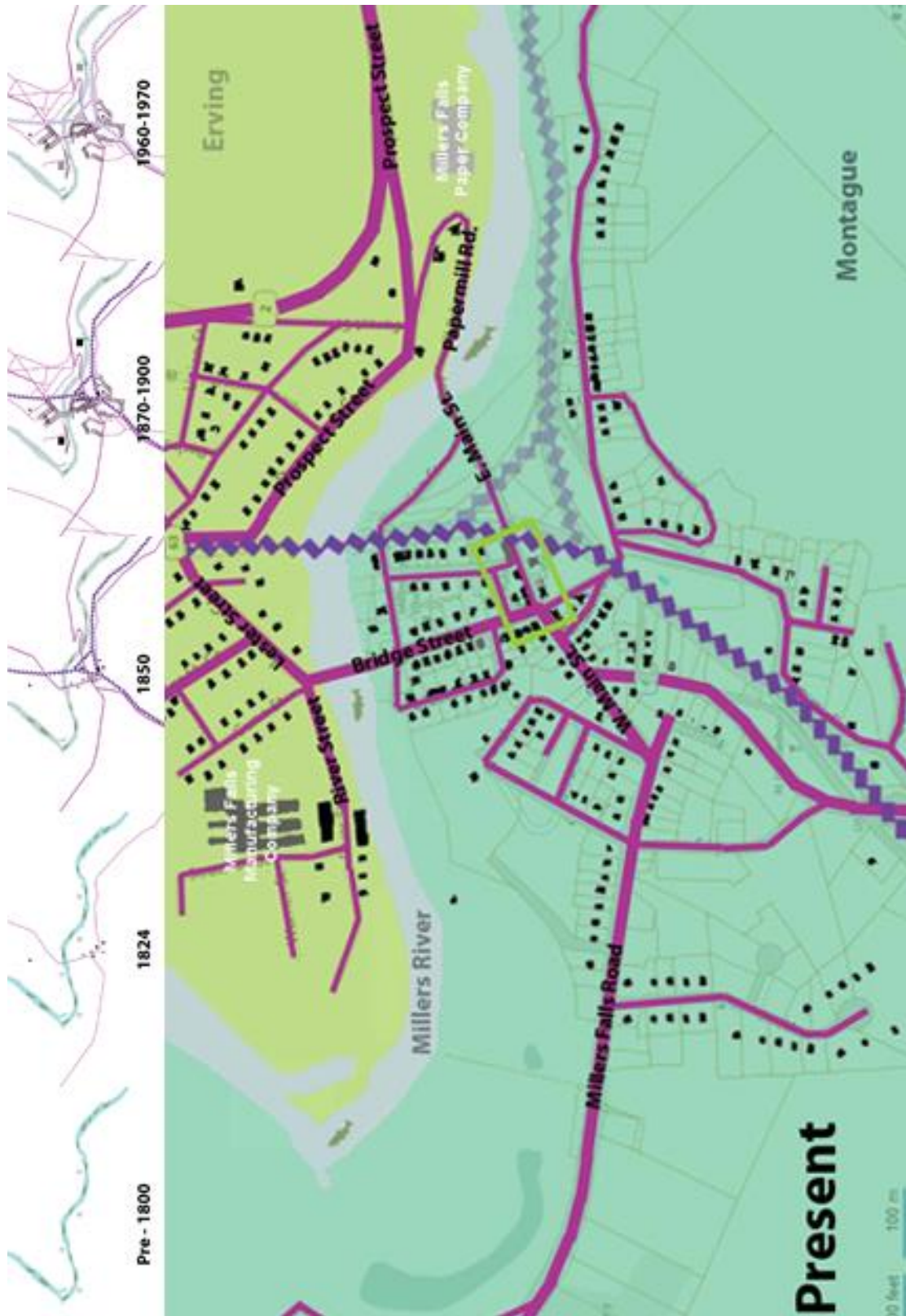


Figure 6: Millers Falls grew from agricultural village to industrial power before falling into decline.

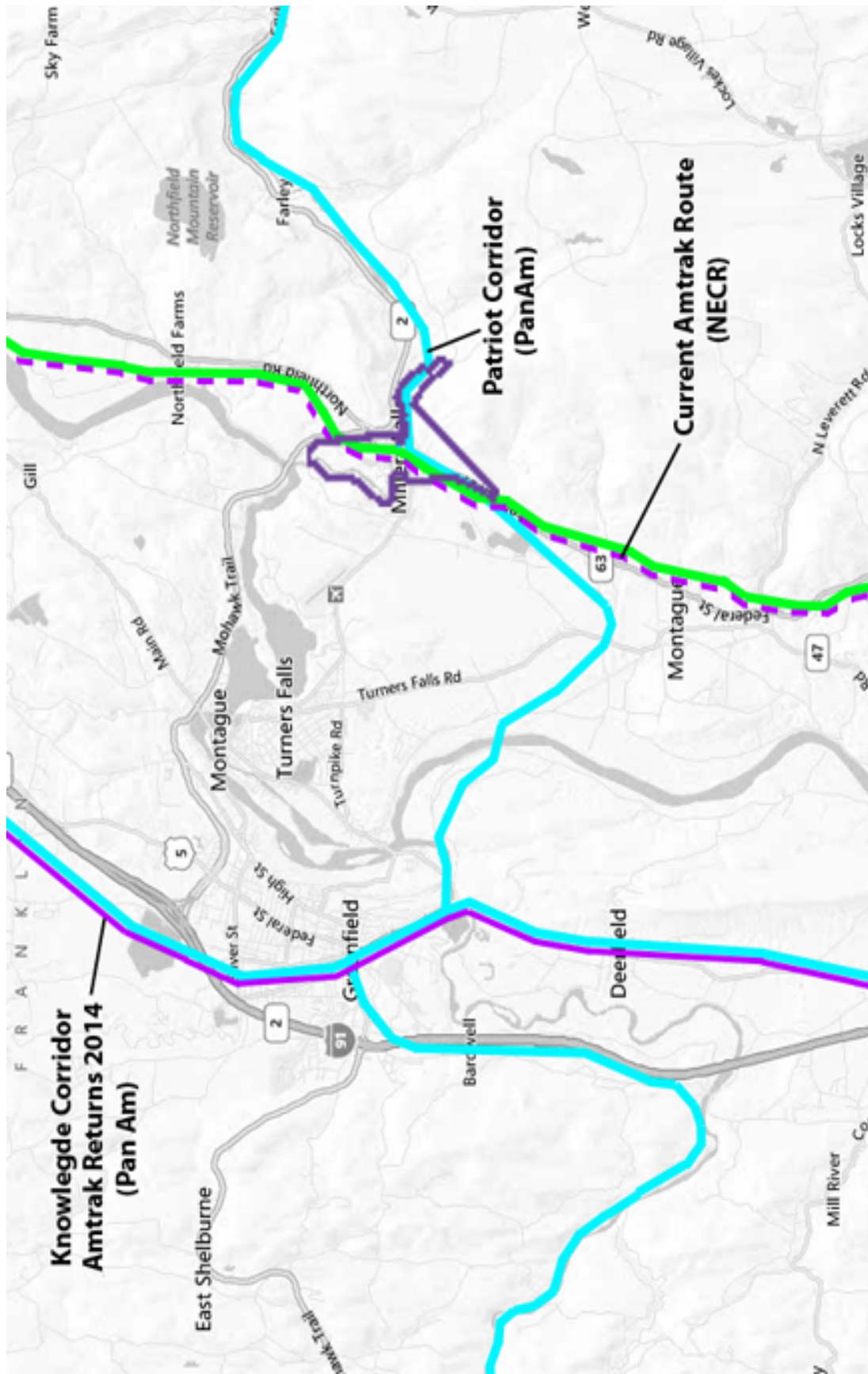


Figure 7: North-south and east-west train lines run through Millers Falls, none stop here.

4.2 History

Before Colonial settlement the area was seasonally occupied by the Pocumtuck, Western Abenaki, and Squakeag tribes. The Native Americans harvested fish from the Millers River each spring when salmon and shad ran in great number, hunted along its banks, and grew maize in the fertile soils of its banks. European settlers established an agricultural village known as Grouts Corner in 1824.

Two important occurrences changed Grouts Corner in the second half of the nineteenth century. In 1866 the New London Northern and Vermont and Massachusetts Railroad met in Grouts Corner. Three years later the Transcontinental Railroad was completed, connecting East Coast with West. At this time, railroads were changing the way goods and people moved across the country, both moved much faster on the rails than they had by river or road. Located at the junction of major north-south and east-west railroads, Grouts Corner became an important hub of transportation.

Access to the railroads for product distribution and a natural seventy foot drop in the Millers River, potential to supply hydropower for manufacturing, spurred Levi Gunn, partner Charles Amidon, and investor Henry Pratt to move their washing machine and tool manufacturing company from Greenfield to Grouts Corner. Gunn and Amidon's previous manufacturing facilities in had suffered water shortages, fire, and floods. With financing from Pratt, a dam capable of producing 800 horsepower, a brick mill for manufacturing washing

machines and hand tools, and a sawmill were built on a bend in the Millers River. The Millers Falls Manufacturing Company, named for the river that powered it, opened on the northwest corner of the village in the winter of 1869-1870. Only half the output of the dam was required to operate the Millers Falls Manufacturing Company, and the owners were able to sell the excess power to other fledgling companies. The Millers Falls Manufacturing Company was highly successful, particularly with its rapidly expanding line of hand tools. The original fifty employees relocated to Grouts Corner from Greenfield and nearby towns, and many new employees relocated to the village to work at the tool company. Housing could not be built fast enough to lodge the workers and the company rented rooms in the few hotels in town and converted empty buildings into tenements. Businesses and support services exploded in the village.

Millers Falls Manufacturing Company had such a beneficial impact on the Grouts Corner that in 1912 residents voted to rename the village Millers Falls after the company. By 1891 the Millers Falls Manufacturing Company had expanded enough to employ 200 workers and the village had grown to nearly 900 residents. Despite a "Great Fire" in 1895, which destroyed all but one building on Main Street, Millers Falls was booming. Main Street was rebuilt immediately following the fire.

In 1902 a group of Holyoke business men opened the Millers Falls Paper Company on the northwest side of the village. The paper company was also highly successful and the industry of the two businesses transformed the former agricultural village into "the biggest small town in the state." The Millers Falls

Manufacturing Company continued to innovate, bring in new talent, and grow. By 1912 the plant had been expanded tenfold, and the tool company employed 500 workers.



Figure 8: Millers Falls prospered at the height of U.S. industry.

The early twentieth century was a high point for the village of Millers Falls. Manufacturing jobs paid well and were highly sought. The village center was full of prosperous businesses. Tourists came to Millers Falls to enjoy the natural beauty of the area. Then, in 1932 the French King Bridge was built and the Mohawk Trail, Scenic Route 2, was re-routed around Millers Falls. The section of former Route 2 which passed through the village was re-designated Route 63. Like many small towns bypassed by highway restructuring, Millers Falls lost a number of visitors and possible patrons when it fell off the beaten track. In the 1950's the Interstate Highway System brought trucks to transport goods, these

took business away from the railroads. Millers Falls lost its status as a hub of transportation, the first of a series of setbacks which would hit the village.³³

Though the Millers Falls Manufacturing Company and the village survived the Great Depression, it hit both hard. Restructuring was necessary on more than one occasion at the tool company, however, it continued to prosper into the middle of the century. Employee-employer relations were historically strong at the Millers Falls Manufacturing Company, still the labor movement reached Millers Falls and in 1960 the shop unionized. The stagnating economy, rising cost of US employees, and availability of cheap labor overseas took a toll on both the tool and the paper companies. Despite aggressive restructuring, the Millers Falls Manufacturing Company was sold to Ingersoll-Rand and all production was relocated to New Jersey. The Millers Falls mill closed in 1970, the satellite Millers Falls Manufacturing Company mills in neighboring towns having closed in preceding years.³⁴ The Millers Falls Paper Company also failed. When the two biggest employers in the village closed their doors more than employees of the mills were affected. Many former mill employees were forced to move out of the village in search of work, those who stayed had to get by on a reduced income, and many businesses in the village which had provided goods and services to mill workers had to downsize or close.

Today, residents and the Town of Montague are working to revitalize the village of Millers Falls. In 2006-2007 a streetscape revitalization campaign was

³³ Savage, Adrian

³⁴ Roeder, Randy

realized. Village center sidewalks were updated and improved, vintage inspired streetlights were installed, traffic controlling elements were implemented to protect pedestrians, and street trees were planted. The Ward Block, home of Elements Brewery, has received a facelift thanks to funding for historic façade restoration. Funding has been allocated for renovations to other historic facades in the center and to carry out a study on the feasibility of establishing the village as a waypoint in the Connecticut River Scenic Farm Byway.³⁵ The community of Millers Falls cares about their center and support positive change. Further Improvements are still badly needed, but the ball is now rolling.

³⁵ Vallette, David A.



Kelly and Alycia are newly married, they moved to Millers Falls because they were able to get more house for their money here.



Jen and Steve met at Greenfield Community College where they took classes in Outdoor Leadership. Now they are restoring the Millers Falls Inn which will house their new business and clients.



Margie's husband worked at the Millers Falls Tool Company until it closed. He passed away eight years ago and she lives alone. Margie wishes that she could take the train to visit her children in Boston.



Harry retired when the paper mill closed. His wife, Pete, worries about his cholesterol and wants him to eat better. She drives to Turners Falls grocery shop.



Jaime and Katie are hiking part of the Metacomet & Monadnock Trail, which runs through the Wendell State Forest. They have stopped in the village to eat breakfast and purchase supplies.



Pat has a great job in Amherst. She wishes she could find a job closer to her daughter's school and their home in Millers Falls.



Bill loves nature. He hunts and fishes with friends and family. He also loves photography, his camera is with him on every trek into the woods or on the river.



Josh and Jess have a young family. They want to raise their children in a small, close knit community like where they grew up.



Brian and Clark are training for a road race, they love the rural scenery and challenging terrain in Montague.

Figure 9: The community of Millers Falls is diverse. Residents and visitors would like to see more services and activities happening in the center.

4.3 Community

Like many American communities, the community of Millers Falls is made up of “Haves” and “Have Nots.” There are comfortable and even wealthy residents, and there are residents who are financially vulnerable. The real estate market of Millers Falls is depressed. Few businesses or services are located in the village center. Most services, once downtown anchors in the five villages of Montague, have been consolidated and are relocated to the Airport Business Park, an unconnected conglomeration located half way between the villages of Turners Falls and Millers Falls. Only a handful of businesses have held on in the center of Millers Falls. Many of the buildings in the village center were constructed immediately after the Great Fire of 1895. A number of the buildings on East Main Street sit vacant, and most are in poor repair. In consequence, property values in Millers Falls are lower than those in neighboring communities.

The relatively low property price tags and abundance of housing in the village has positive and negative effects on its community. On the positive side, new residents, young couples and families in particular, are attracted to Millers Falls where they can get more house for their dollar. On the negative side, there are few businesses and good paying jobs available in town, so many residents travel to work outside of Montague. A twenty minute or longer commute is the trade off for living in the inexpensive, beautiful rural community.

Those who can afford a car for a daily commute outside of town are comfortable in Millers Falls. Those of limited finances or those unable to drive are

at a disadvantage in the village. The nine mile trip to Greenfield and a full service grocery store, banks, shopping, and other services takes under twenty minutes each way by car. The same trip takes forty five minutes each way by bus and only a handful of buses are scheduled to stop in Millers Falls each day. Franklin County Regional Transit Authority shuttle service is available to supplement the buses, for a fee. Though Amtrak trains currently run through Millers Falls, there is no passenger rail service in the village at the writing of this thesis. The north-south Amtrak route will relocate to a rail line running through Greenfield in 2014. There are no plans at time of writing to restore passenger rail service on the north-south track through Millers Falls. There is some hope that the east-west rail line through Millers Falls, known as the Patriot Corridor, will be reactivated in the future with passenger service to Boston.

A significant population of senior citizens and young adults in Millers Falls are financially vulnerable. Many seniors need to get by on limited social security income. Some are financially or physically unable to drive and so are restricted in their access to health care, nutritious food, and social activities. Many of these seniors would like to move to a walkable community or a senior care facility, but due to the low value of their home are not financially able to do so. Young adults with limited finances who own or rent in Millers Falls are similarly stuck. Along with access to basic services, their access to higher education and career training is severely restricted. Without education these people will find improving their financial situation extremely challenging.

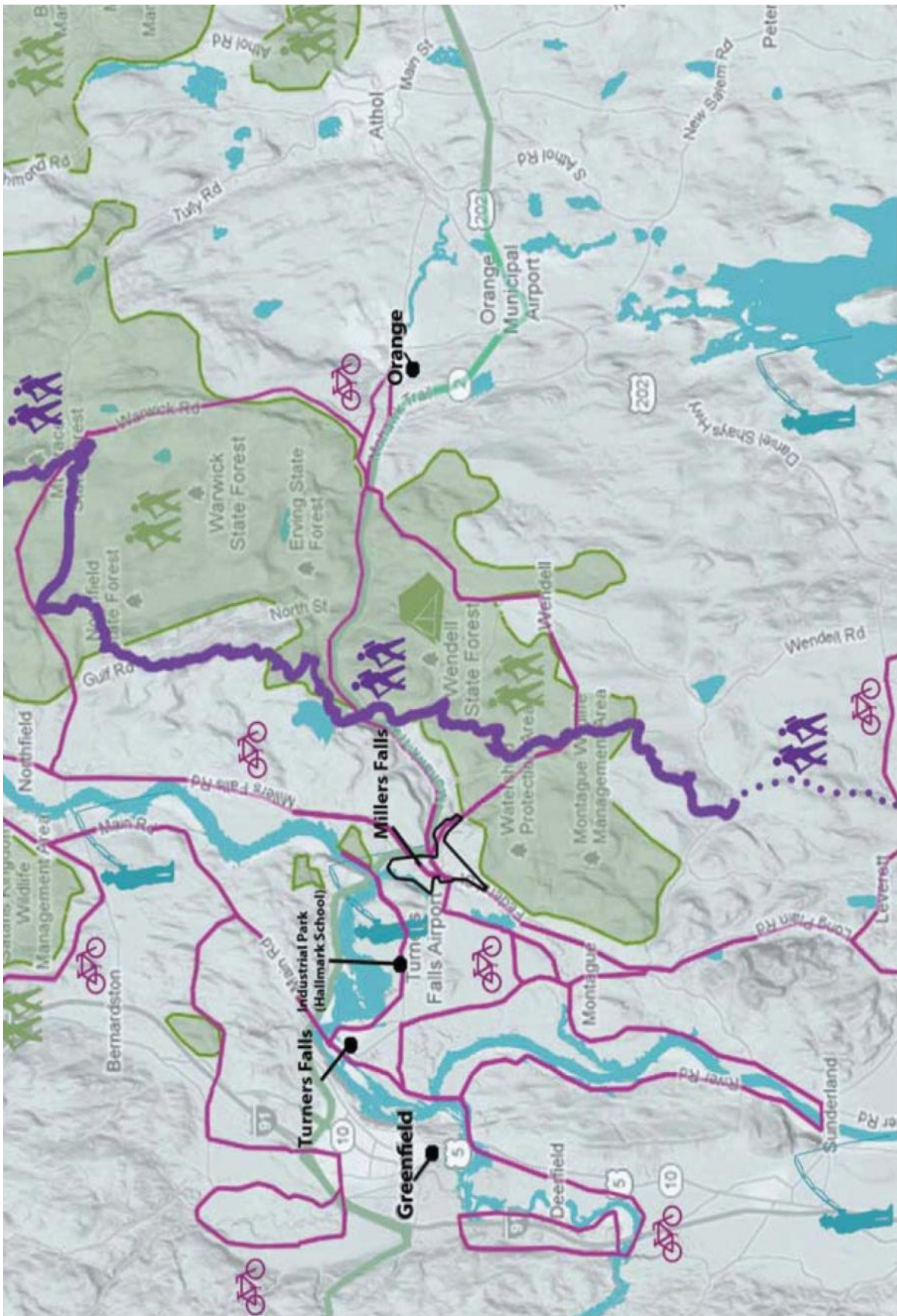


Figure 10: The area around Millers Falls is full of outdoor recreation opportunities.

4.4 Outdoor Recreation

Historically, outdoor recreation has brought visitors to Millers Falls. The Millers Falls Inn was one of several famous lodgings on the Mohawk Trail which housed people who came to enjoy the natural beauty of the area. Hiking, biking, hunting, fishing, water sports, and more outdoor recreation opportunities are available in and around Millers Falls. People are already enjoying outdoor recreation in Millers Falls, but there are few places for these visitors to pause, eat, sleep, interact with residents, or inject capital into the local economy.



Figure 11: As early as the beginning of April, rafters are out on the Millers River.

1866

North-south and east-west railroads meet in the village, it becomes hub of transportation.

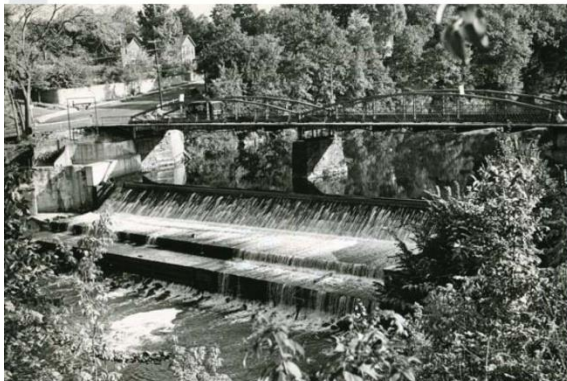


Trucks dominate transportation of goods, trains no longer stop in Millers Falls.

Today

1869

This dam on the Millers River supplied power to a number of businesses.



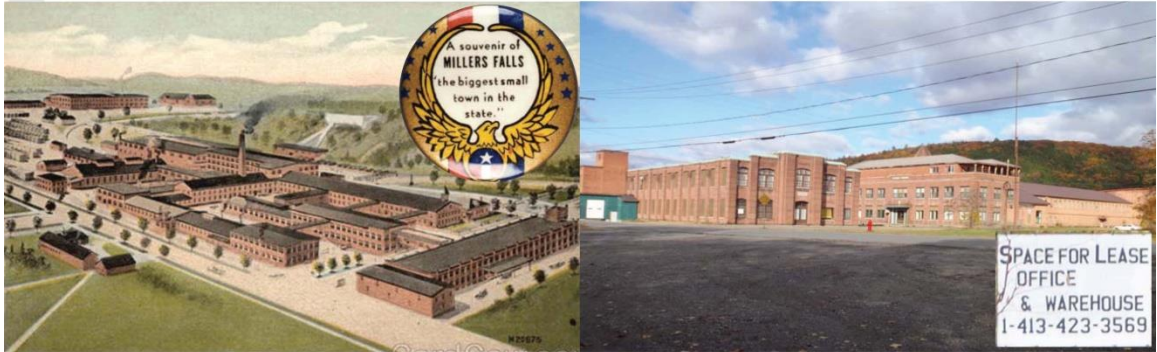
The dam has washed away. The river runs free through the village again.

Today

Figure 12: Millers Falls then and now (continued onto next few pages).

1912

Grout's Corner residents vote to rename their village after the hugely successful company.

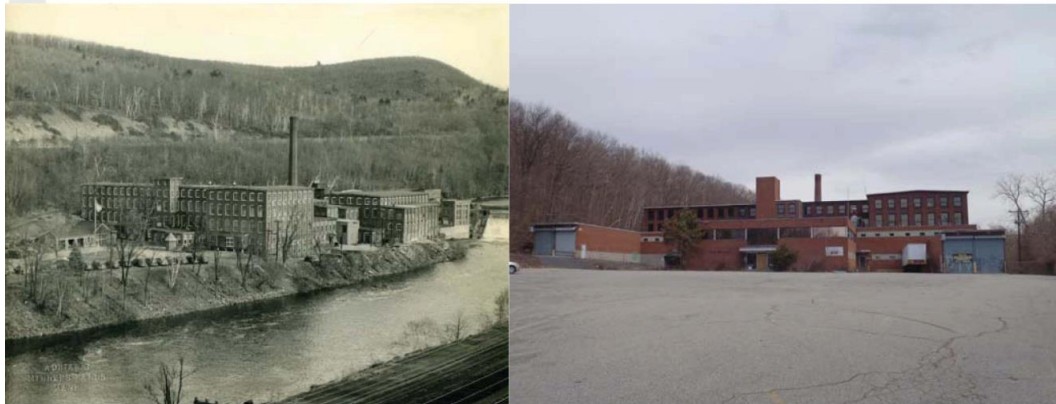


Though the huge mill complex houses a potpourri of businesses, much of the property is vacant.

Today

c1900

The Millers Falls Paper Company opens, propels growth of the village until pulp paper replaces rag.



The mill is vacant and for sale.

Today

1900s

Millers Falls Manufacturing Company spurs massive population growth in the village.

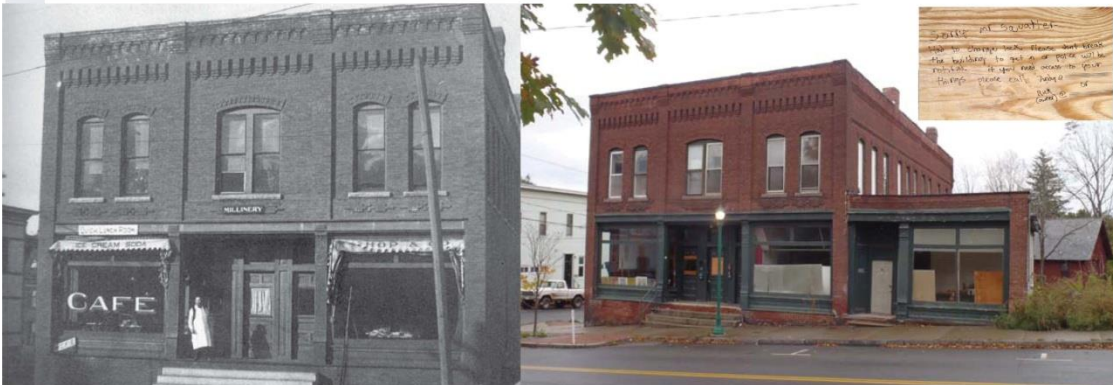


Many buildings in the center are dilapidated. Improvements indicate a desire for renewal.

Today

1900s

The Ross Block housed shops and a cafe in addition to the library.



Ross Block is under renovation. A boarded door contains a message to an unwanted visitor.

Today

1984

As recently as the 1980s this small stick frame structure housed a butcher shop.



It sits vacant.

Today

1953

The Mayhew and Powers Blocks house prosperous businesses.



The businesses are gone, and Mayhew Block is abandoned.

Today

1950s

The Spanish Garden block anchors the corner of Bridge and Main Streets. The facade was closed at some point.



The building is very little changed and contains several viable businesses.

Today

1900s

The Ward Block anchors the corner of Main and Bridge Streets opposite Spanish Garden Block.



Elements Brewery in Ward Block.

Today

4.5 Early Design Process

I began the thesis process with a series of diagrams exploring issues of sustainability. Sustainability is important to me and I believe that all projects moving forward should be as green as possible. I believe that all architects have a responsibility to create green buildings as we move forward toward a more ecologically balanced future. This belief has remained an important part of my thesis. The Aha! moment where my interest in sustainability led me to my thesis topic, revitalizing post-industrial New England, occurred when I chanced, in conversation, to revisit the concept of the Triple Bottom Line. People, Planet, Profit, is a strong parti for me. I want to help people and the planet, and I know that in order to successfully do that I cannot forget profit, though people and planet come first.

Once I had this realization I was ready to move from abstract research into a real site. I did not yet have a concrete thesis topic, I had never had one type of building in mind which I was dying to design. Rather, selection of a site and analysis of the needs of the community in that specific place informed the program of my thesis. I was drawn to a number of places: South Hadley Falls, Ludlow, Holyoke, Millers Falls. All of these places, like so many in New England, were once centers of manufacturing which have been depressed since industry moved overseas. The focus of my thesis narrowed down to revitalization of post-industrial centers.

I conducted a number of site visits; to successful downtowns, to dysfunctional downtowns, and a range of places which fall between. My reading focused in on downtown renewal. I diagrammed, analyzed, and strategized. I finally picked my site, the small village of Millers Falls, a place I connect with. It has a small town feel, is human scale, and the people I met on my site visits were excited that someone was interested in working on their village.

Topic and site now selected, I was able to hit the ground running. While Millers Falls has a number of things working for it – passionate community members, the little library, Elements Brewery, Millers Pub, and a newly reworked streetscape to name a few – it also has a number of challenges. Millers Falls is rural, remote, the building stock is in poor repair, downtown is riddled with vacant spaces, important services are located miles away, and public transportation is very limited. It quickly became clear that a master plan for Millers Falls was necessary, not just one architectural intervention.

The explorations for and making of the master plan led me to a parti of Making, Education, Social, Fitness. Uses introduced to the village should address as many of the parti categories as possible. I did not let my imagination run wild, nor did I proceed as though I had a billion dollar budget. Perhaps the biggest problem facing real world revitalization of Millers Falls is the limited funds available to put into the center. I want to improve the quality of life for residents of Millers Falls, but as the Triple Bottom Line reminds us, capital is an integral part of the equation, People, Planet, Profit. Uses introduced to the village by the master plan needed to be ones which would generate at least enough revenue to

be self supporting. At least some of the businesses needed to do more, they needed to bring in new people and inject money into the local economy. Outdoor recreation has historically been a draw to the area. My master plan draws in capital through outdoor recreation activities. That capital is then invested in the architectural intervention of this thesis, the Millers Falls Community Hub.

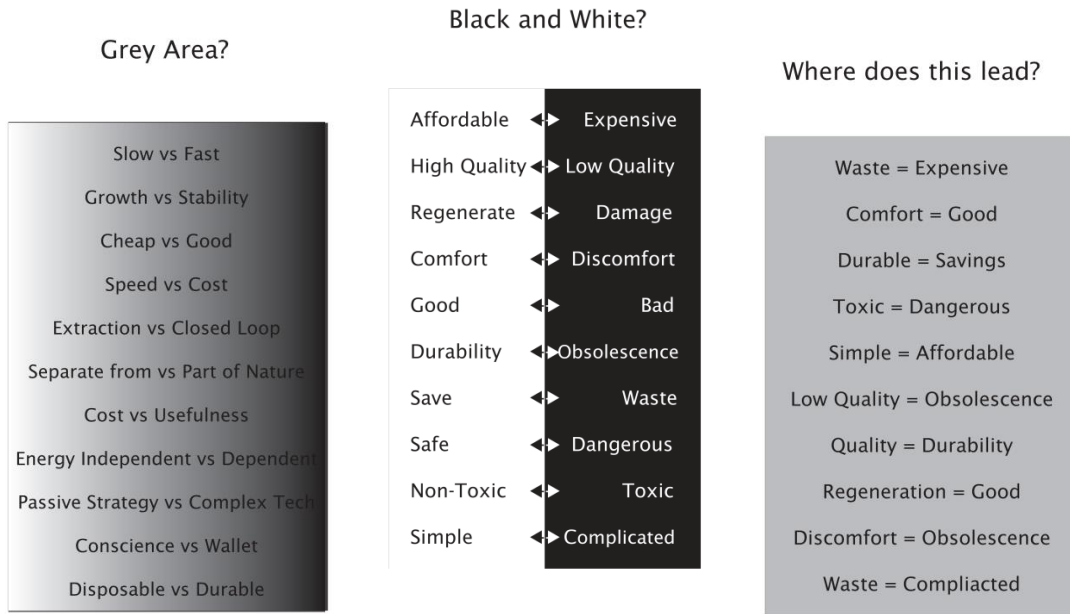


Figure 13: Diagrams explore interaction between ecological design and occupant needs.

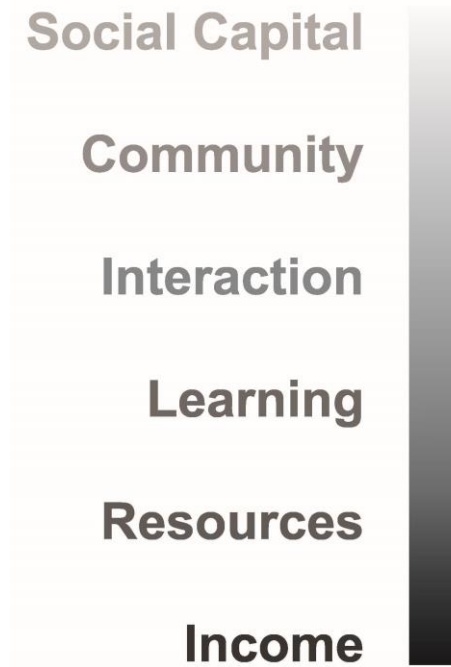


Figure 14: The diagrams above are distilled into one. Tension between social capital and income plays a strong role in shaping the project.

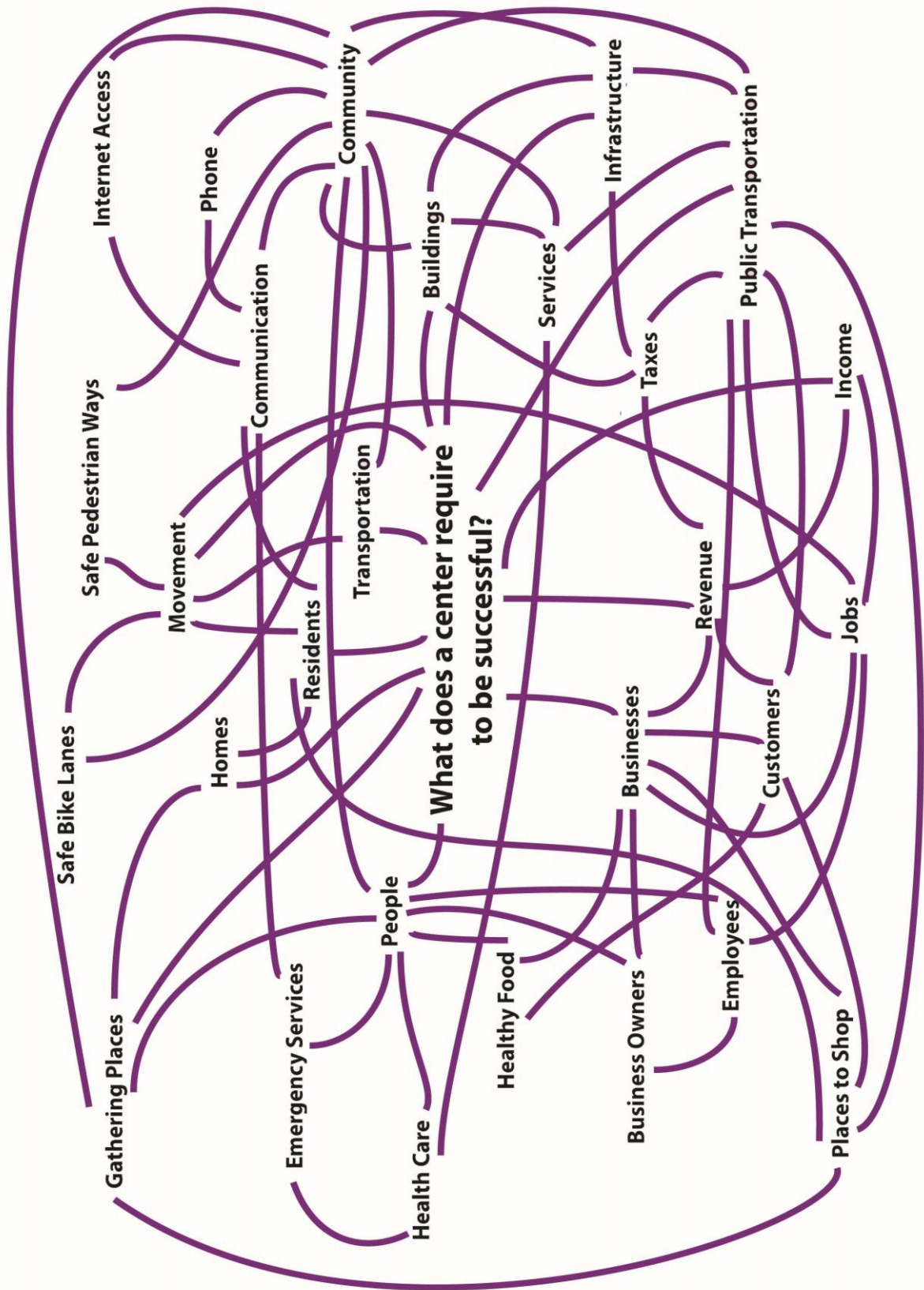


Figure 16: Site observations allowed identification of what is required in a successful downtown.



Figure 17: Research, site visits, and analysis lead to a parti for revitalizing Millers Falls.

4.6 Master Plan

My research and LEED for Neighborhood Development recommend that a successful center have: a food store with produce section, community-serving retail, convenience store, farmers market, hardware store, pharmacy, other retail, services, bank, family entertainment, gym or health club, hair care, laundry, restaurant, café, community facilities, adult or senior care, child care, community center, cultural arts facility, education facility, government office that serves the public on-site, medical clinic, place of worship, police or fire station, post office, public library, public park.³⁶

Millers Falls once had many of these services. Today there are: a church, a public library with limited hours and space, a popular brewery, a convenience/food store with very limited produce selection, a clock shop, two bars which serve limited food at night, a newly opened restaurant just outside downtown, and a senior center on the other side of the river. There are also five empty storefronts and two abandoned buildings in the center.

In my master plan for Millers Falls, I have returned a number of important services to the village. There is a glut of housing in the village; the housing on East Main Street has been scaled back. The old Millers Falls Inn, currently in use as an apartment building, returns to use as an inn. It is also the headquarters of an outdoor adventure touring company. An existing business, D & D Motors, is expanded to include rentals of equipment for outdoor recreation. The first floor of

³⁶ USGBC

the Amidon Block is returned to service use, a small post office is inserted on the first floor. The Powers Block, presently empty, is re-activated. A pharmacy and café on the ground floor of this important anchor take advantage of a large volume of traffic constantly streaming by the highly visible location. The upper floors house a bank, offices, and meeting space. The upper floors of the Equis (also known as the Spanish Garden) and Powers Blocks are also renovated for business use. The library returns to its original home in the village, the newly renovated Ross Block. The abandoned stick frame buildings, the former butcher shop and Mayhew Block, are taken down and recycled and a Community Hub fills the prime village center real estate.

Carroll's Grocery expands their selection of fresh healthy foods and sponsors weekly farmer's markets in the Community Hub landscape all summer long. The north-south rail line, abandoned by Amtrak, becomes a rail trail. The Millers Falls Rail Trail is an important community resource for fun, health and fitness, and a draw which will bring visitors from nearby towns. The east-west rail line, the Patriot Corridor, is reactivated for passenger services. People can once again catch a train in Millers Falls and ride to Upstate New York or Boston. They can also take a short ride to Greenfield and from there catch a train to Vermont or New York City. Diverse uses populate the village once more.

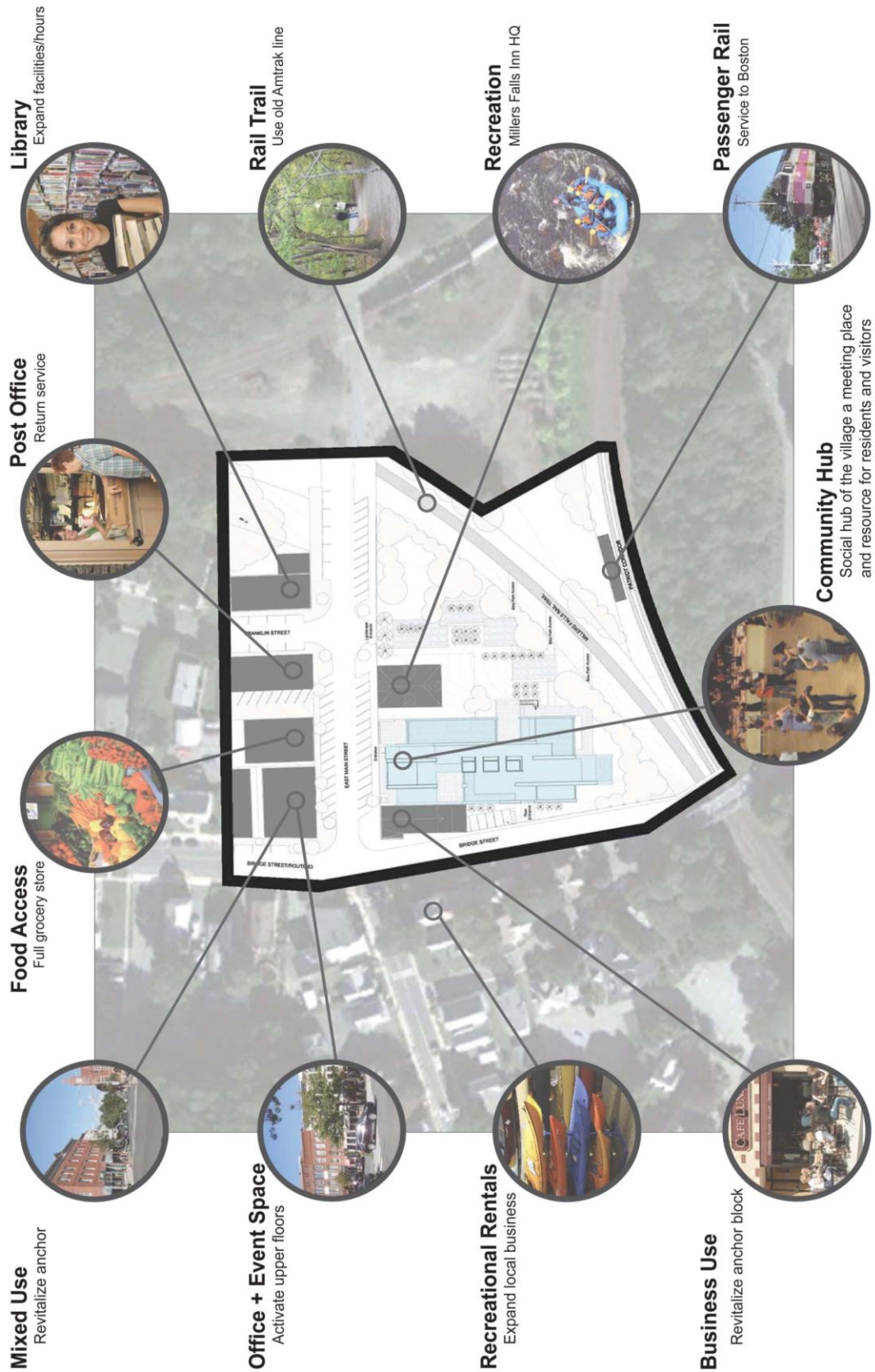
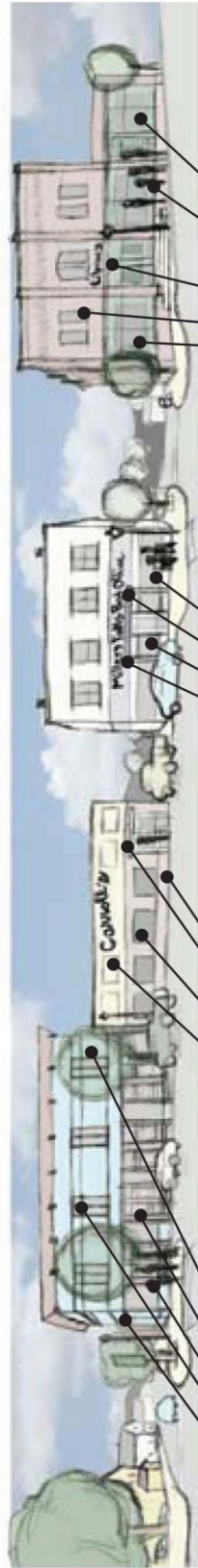


Figure 18: This master plan vision returns important services to the center of Millers Falls.



Equis Block

- Renovate upper stories for office and event space.
- Recessed entries create shelter for patrons.
- Open Millers Pub facade, return to original glazing.
- Retain historic character. Doors and windows should match original.
- Activate Bridge Street face, create views to inside.

Carroll's Grocery

- Enhance selection of fresh produce.
- Awning provides shelter from elements and adds interest to facade.
- Open facade, allow views to interior from street.
- Remove/reduce quantity of advertisements which obscure architecture.

Amidon Block

- Renovate ground floor and basement for business use, maintaining apartments above ground floor.
- Post Office provides service, place for social encounters.
- Open facade, to facilitate interaction between inside and outside.
- Awning with character and detailing coordinates with neighbors, creates outdoor room and provides shelter from elements.

Ross Block

- Complete urgent repairs to addition, restore to business use.
- Public resource and place for gathering.
- Renovate ground floor to return to original use as Library.
- Restore historic details.
- Repair damaged glazing, retain historic character.

Figure 19: Restoration of the historic facades of downtown buildings and drawing people together for social interaction are important components of revitalizing

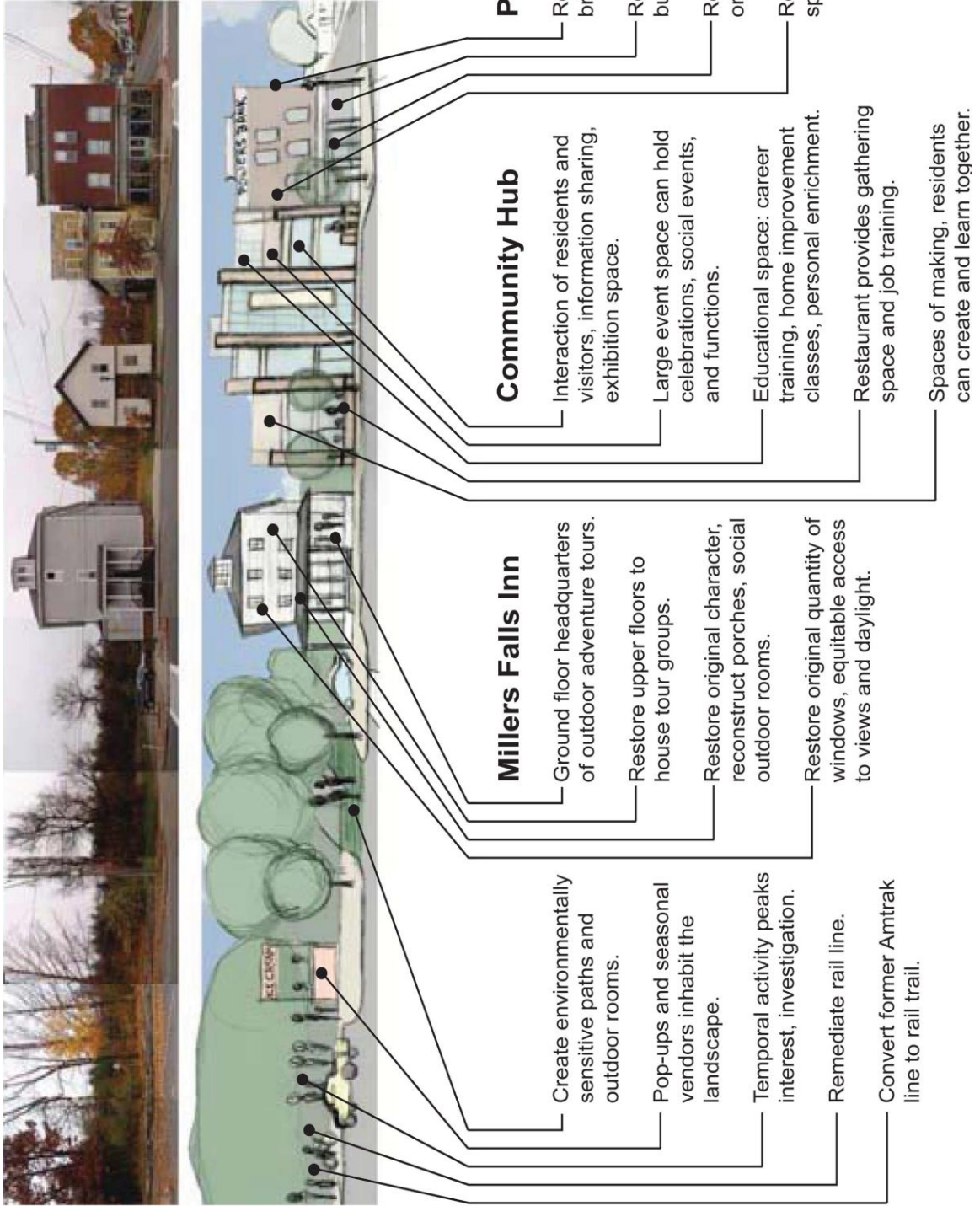


Figure 20: The Community Hub is an interface where residents and visitors can mingle. The hub includes indoor and outdoor spaces. An outdoor dining room welcomes people in for a bite.

4.7 Community Hub

The Community Hub is the heart of my thesis and the heart of Millers Falls. It is a place where residents and visitors can interact. It is a place of Making, Education, Socializing, and Fitness. It is a place where one can go to make crafts, or to learn how to make crafts, or buy hand-made items. Classes for personal enrichment and enjoyment, for career training, and for home improvement are offered at the hub. Social gatherings large or small can be accommodated at the hub; from a one on one lunch, tutoring session, or wii game to a contra dance, town meeting, or a performance. The hub is a place to build social capital and it is also financially self sustaining.

The human scale of the village, particularly that of the two buildings which were removed to make room for the Community Hub, was a driver in generating the form of the building. The available on street real estate was generous, but not enough to accommodate the whole program in a shallow footprint. The building needed to take the available street front space, sharing a party wall with the Powers block on one side and respectfully giving breathing room to the Millers Falls Inn on the other, and then expand back into the landscape.

Datum lines, not specifically aligned with the Mayhew Block and butcher shop but echoing their scale, were drawn across the property. Two precedents, both Marmol Radzner projects, the Altimira Residence and Treepeople Center were very important in the generation of the architecture. Both projects are

organized with massive parallel walls which shape interior spaces and create the exterior character of the buildings. Louis Kahn's Kimbell Art Museum was another important precedent. Though Kahn's design does not have parallel walls running beneath every parallel vault, it does have a grid of parallel rectangles which is thoughtfully used and occasionally broken. Study of these precedents led to generation of thick walls aligning with the human scale datum lines.

LARGE

Gathering
Dance
Performance

Media/Wii

Eating

Walking Track
Retail

Social Computer

Exhibition

Lounge

Information

Crafts

Lecture

Shop Classroom

Fitness Classroom

Education

Fitness

Food Prep

Post Office

Intern Lodging

Office

Small Group

Quiet Reading/Study

Individual

small

GROUP

Gathering
Dance
Performance

Media/Wii

Eating

Walking Track

Retail

Social Computer

Exhibition

Lounge

Information

Crafts

Lecture

Shop Class

Fitness Classroom

Education

Fitness

Food Prep

Post Office

Intern Lodging

Office

Small Group

Quiet Reading/Study

Individual

individual

LOUD

Gathering
Dance
Performance

Media/Wii

Eating

Walking Track

Retail

Social Computer

Exhibition

Lounge

Information

Crafts

Lecture

Shop Class

Fitness Classroom

Education

Fitness

Food Prep

Post Office

Intern Lodging

Office

Small Groups

Quiet reading/Study

Individual

quiet

Figure 21: Potential Community Hub spaces were analyzed and then organized by size, social character, and potential volume level.

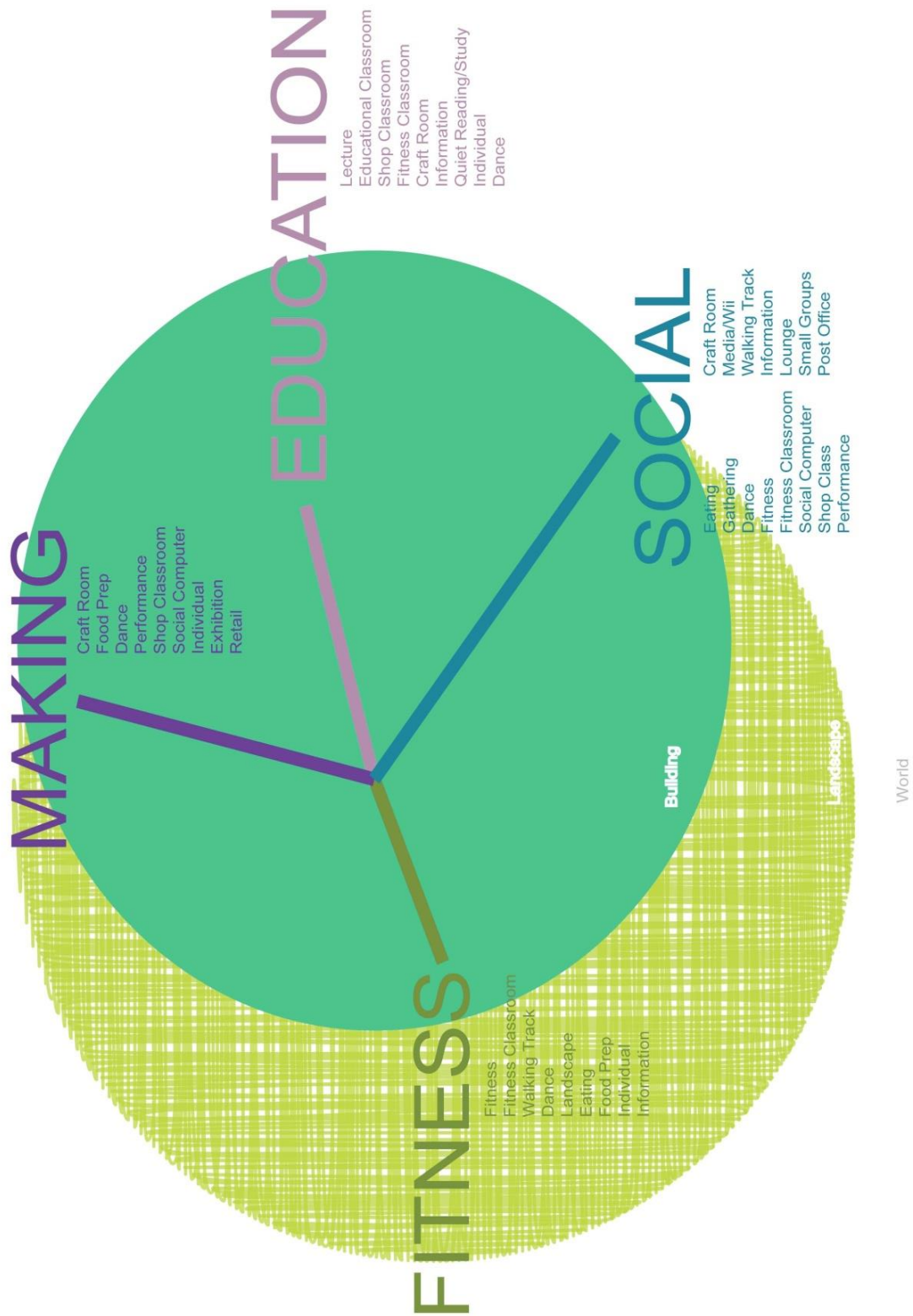


Figure 22: Spaces were also identified by how they fit into the parti of Making, Education, Social, Fitness. Many spaces supported more than one parti category.

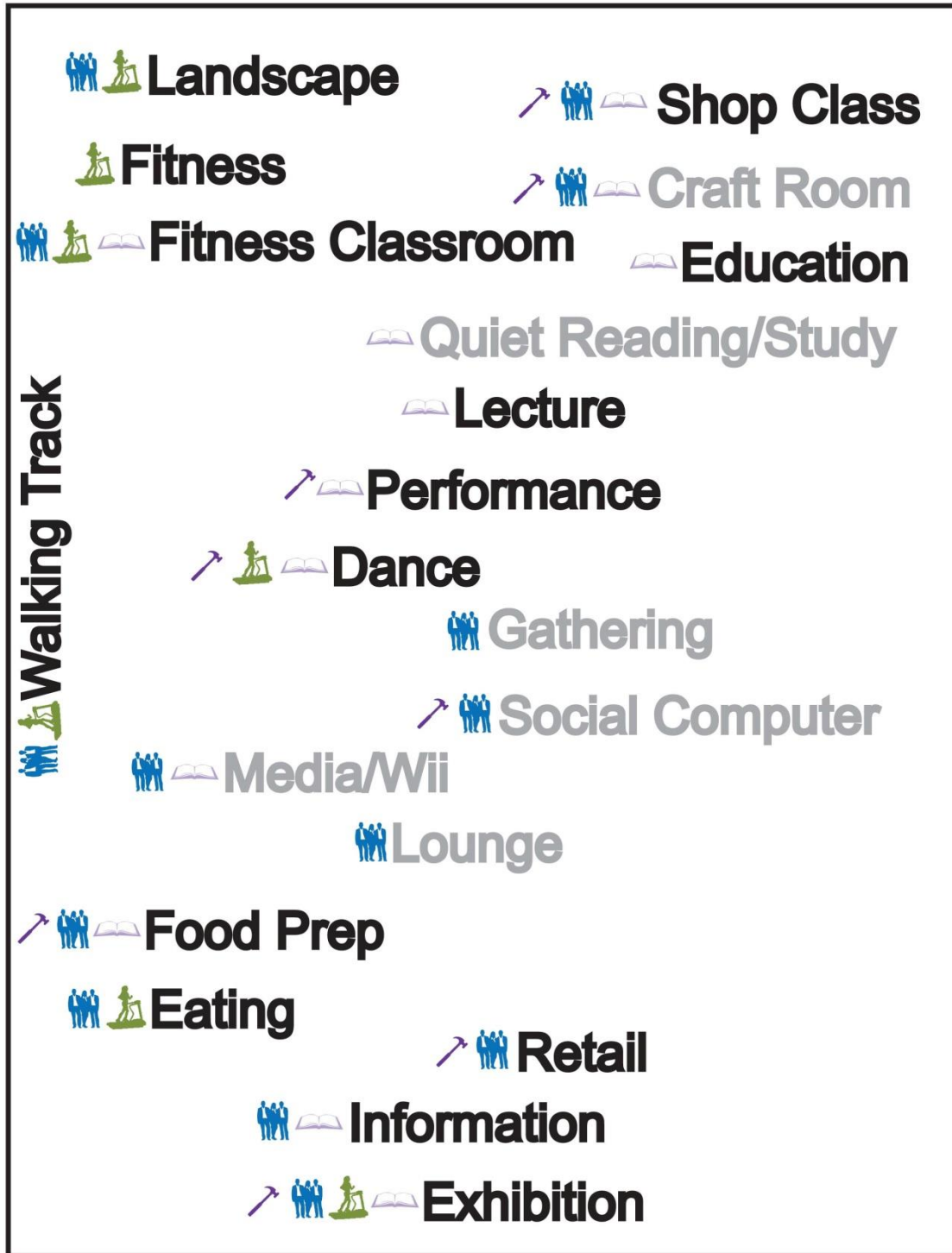
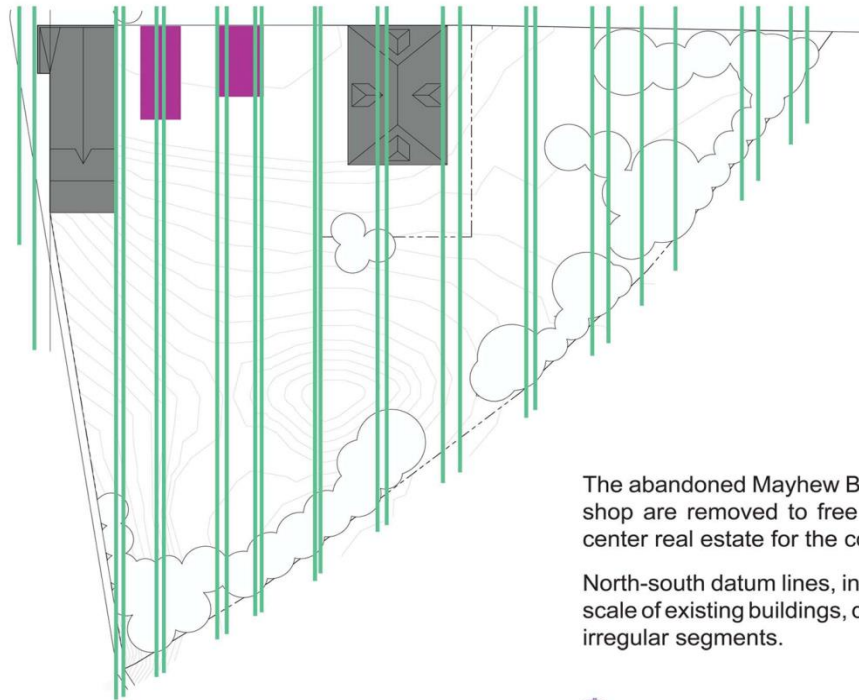


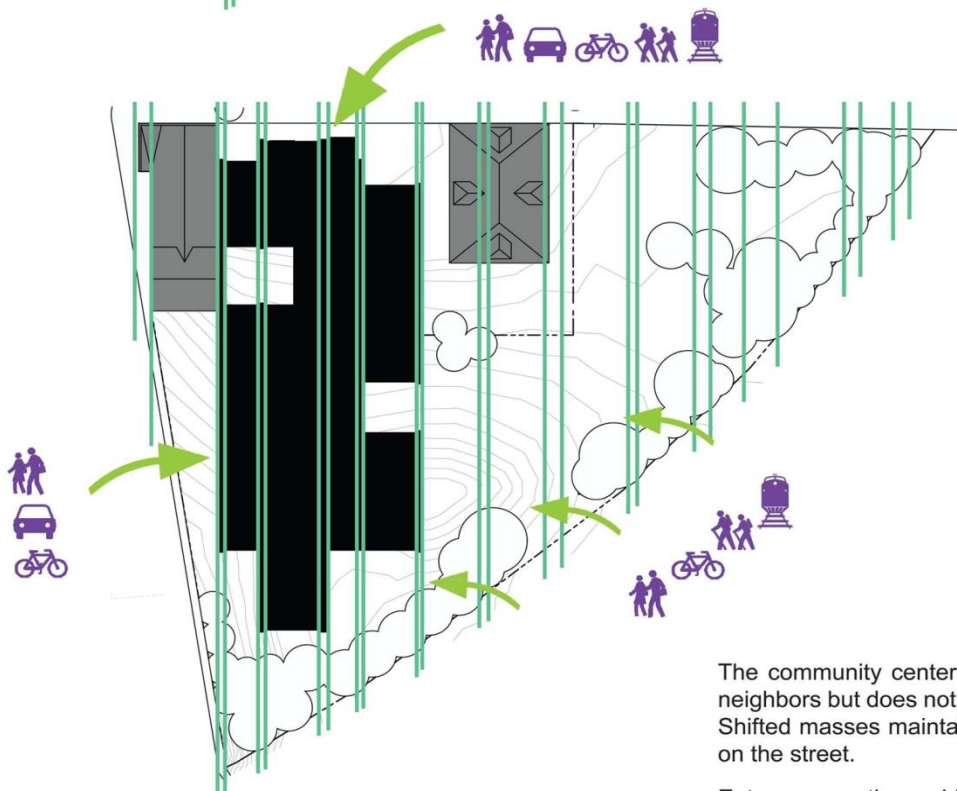
Figure 23: This diagram refined the parti and proximity diagrams into the basis of the floor plan. Black text indicates first floor spaces, spaces above are shown in grey text.

Site Engagement



The abandoned Mayhew Block and butcher shop are removed to free valuable village center real estate for the community hub.

North-south datum lines, inspired by human scale of existing buildings, divide the site into irregular segments.



The community center is larger than its neighbors but does not overwhelm them. Shifted masses maintain a human scale on the street.

Entrances on three sides welcome both Millers Falls residents and visitors.

Figure 24: The human scale of the two timber frame structures removed for the Community Hub was a spring point for the design.

Five long parallel walls of equal length and height would have created four long, uncomfortable hallways. Instead, the five parallel walls which form the Community Hub were carefully manipulated, pushed, pulled, and broken to shape space. One grand hallway does run nearly the length of the building on the long axis, but it is not dark, compressed, nor confining. Operable glass walls break much of the first floor hall walls down, a rhythm of columns frame views into spaces adjoining the hallway and natural light comes in from two courtyards which touch the hall. Neither is the hallway one height for its length. There is a moment of compression upon entry from the street then the ceiling soars, the plates of the second and third floors pull back towards the south end of the building.

Careful manipulation of the thick walls allows for spaces, Interaction and Event, that are two bays wide and multiple stories tall. Three service cores pierce the center of the hub, one side of each core is visible from the grand hall and the other from the event space. The cores form the “thickest walls” and are inhabitable, an elevator and bathrooms are housed in these walls. Similarly, many of the thick walls of the building are useful space. The gym reception desk is built right through a four foot thick wall, staff interact with guests from inside the wall. Display cases in the interaction space and galleries are in the thick walls. Booths in the restaurant are in the thick wall. Cabinetry throughout the building is inset in the walls. The walls are more than an organizational system and more than structure, they are interactive and inhabitable.

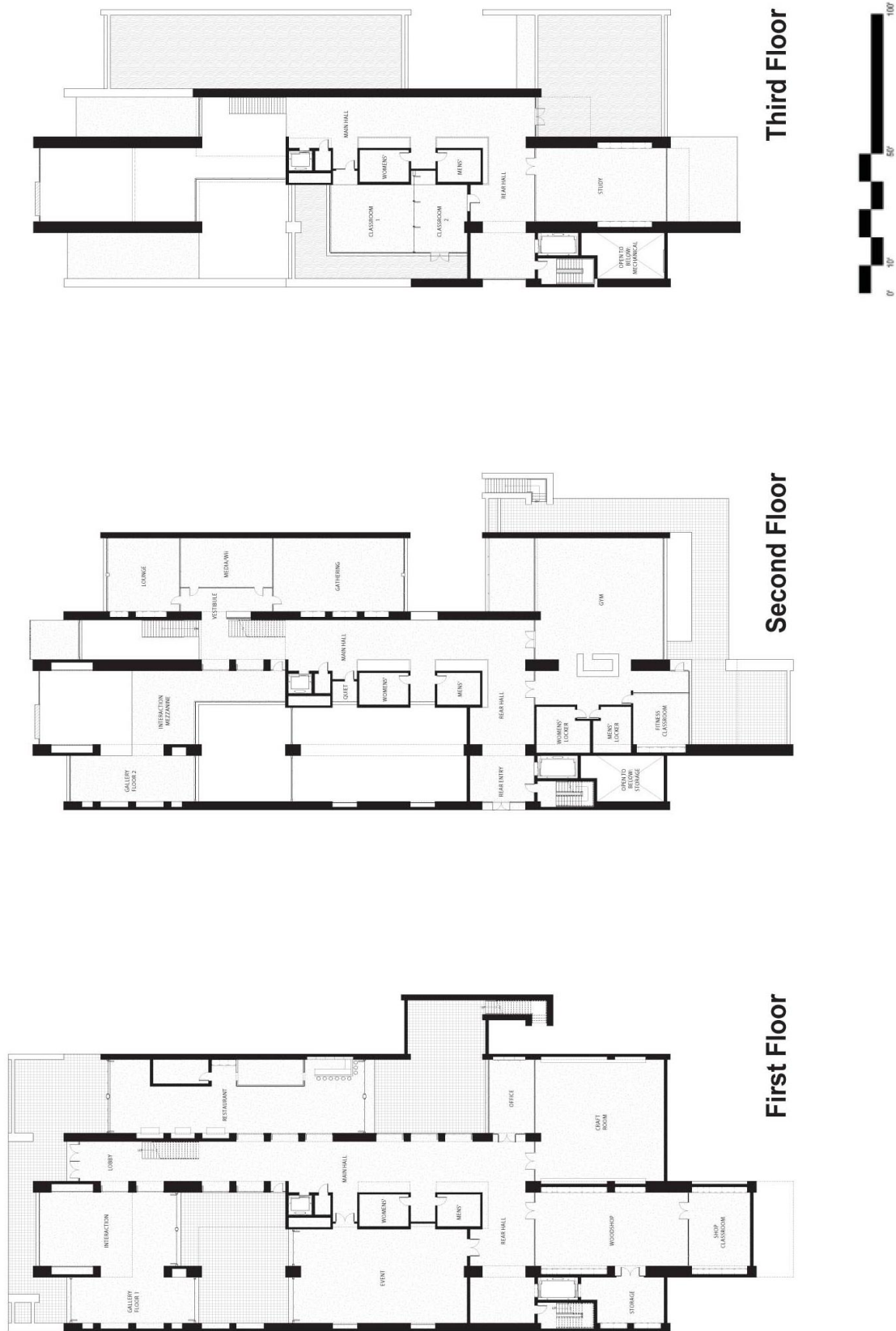
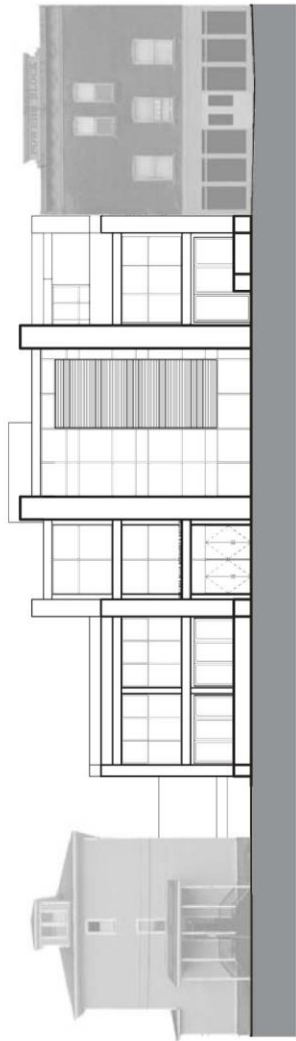
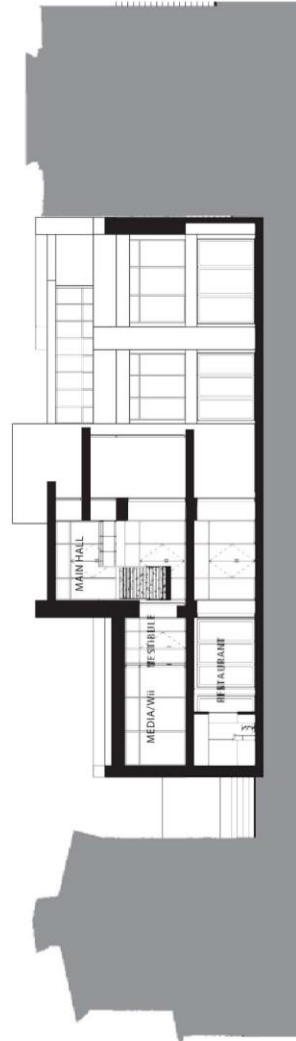


Figure 25: Thick walls organize the Community Hub and break the massive structure down to human scale.



North Elevation



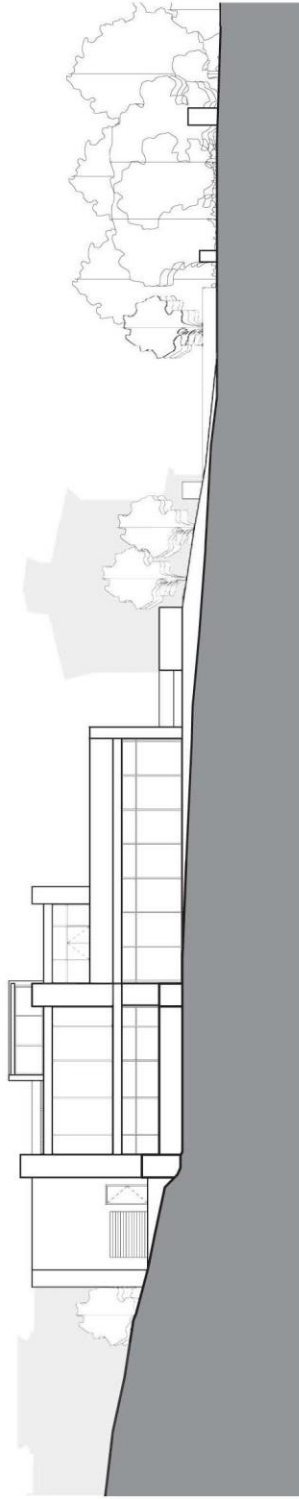
North Section



Figure 26: The Community Hub has four public faces and three "front doors" (continued onto next few pages)

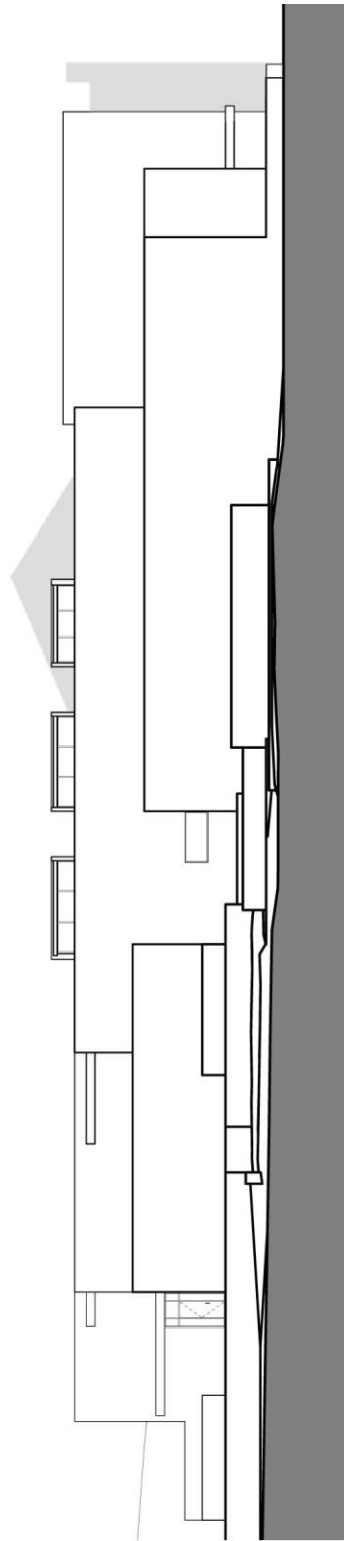


North Section



South Elevation

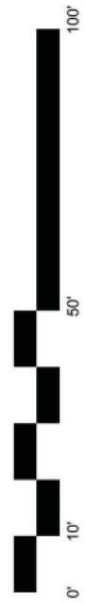


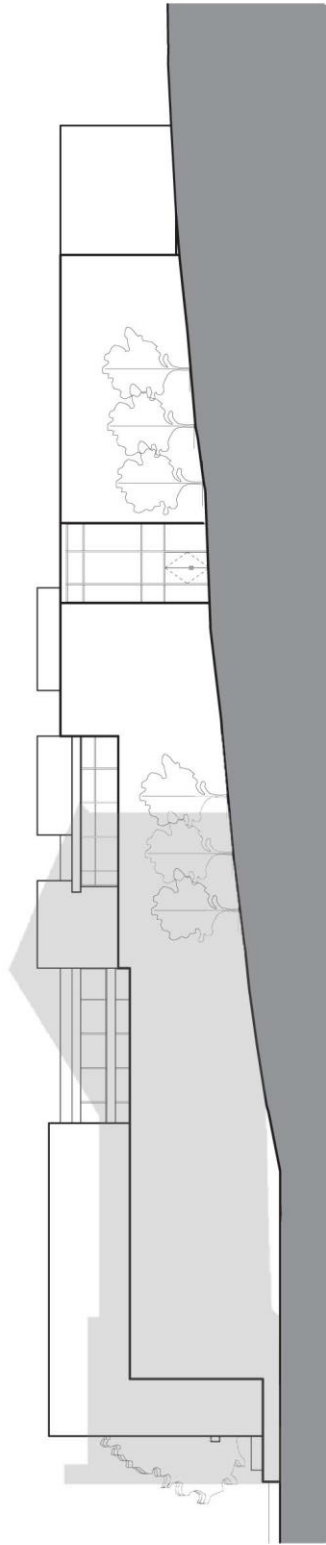


East Elevation



East Section

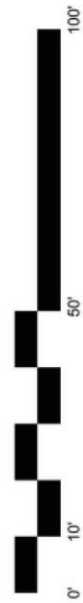




West Elevation



West Section



The Community Hub holds spaces of Making, Education, Socializing, and Fitness. Visitors can go to the hub to visit with friends, make new ones, learn something, have fun, learn job skills, learn how to repair their home or business, make money, spend money, learn about outdoor recreation opportunities in the area, eat, dance, play, or they can go because they want to find something to do. The Community Hub builds social capital, it is a space that facilitates personal empowerment, and builds community. The Millers Falls Community Hub is the heart of the master plan to revitalize the village.



Figure 27: The Community Hub is a good neighbor. The scale and materials reference its neighbors, and though the building is modern it takes many design cues from village center buildings.



Figure 28: A live projection on the lobby wall can be seen from the street and entices visitors to see what is happening in the Community Hub.

4.8 Conclusion

Decaying urban spaces are common in post-industrial New England. They are places that need attention. Careful analysis, investigation, identification of inhabitants and their needs are necessary to understand the unique place. An informed understanding of each individual place is a necessary component of renewal. Industry is no longer an economic driver. New sources of capital, appropriate to the specific place, must be found. Capital is a necessary part of supporting People and Planet. People need jobs and People need a healthy and fulfilling place to live. This thesis has shown the process of finding a path to revitalization for one post-industrial New England town. Finding a path towards the revitalization of Millers Falls has been a challenging and rewarding experience.

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