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SUSTAINING COMMUNITY

A NEW SOCIAL, ECONOMIC, AND ENVIRONMENTAL PATH FOR WARE, MA

A Thesis Presented

by

AVIVA J. GALASKI

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ABSTRACT

SUSTAINING COMMUNITY: A NEW SOCIAL, ECONOMIC, AND ENVIRONMENTAL PATH FOR WARE, MA
MAY 2014
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In Western Massachusetts, as in many regions of the United States, the municipalities with significant population size are significantly eclipsed in both number and area by the surrounding towns and villages. Struggling rural locations often face similar challenges to their urban counterparts: declining or failed industry, high levels of unemployment or under-employment, and lack access of quality housing across income classes. In addition to these obstacles, they also face additional difficulties of both physical and social isolation. While a great deal of recent effort has been placed in studying the architectural and planning interventions needed in struggling urban locations, rural areas have had little help from the field as a whole, often dismissed as unsustainable due to their lack of density.

The focus on only the city fails to consider a larger picture of cities, towns, and rural communities, as an interconnected system. If those “unsustainable” rural communities were to be vacated, cities would rapidly discover significant problems in the realms of agricultural production, water supply maintenance, and a host of other benefits that exist in the symbiotic relationship between cities and the rural areas around them. Working towards a sustainable future requires changes to be made across the board of human habitation, and rural communities play a significant role in that goal.

Rather than considering both scenarios in measure, focus remains tilted to the urban context, leaving rural practitioners and planners with few models for moving forward in socially and ecologically sustainable ways. This thesis attempts to rectify that absence.

Another facet of this thesis is an attempt to address not only ideas of environmental sustainability, but the social equity, economic vitality, and supportive social systems that are required to meet those goals. Architecture is prone to disregarding the effects the built environment has on the community, but the heritage and culture of a place are always impacted by the construction of a new building, the renovation of an existing community landmark, or the development of new infrastructural systems. These cultural changes can be positive or damaging, depending on how attuned the designer is to current need, and to the involvement and agency of the community being affected.

I have chosen to focus this thesis within my home region of Hampshire County. Ware, Massachusetts, located on the south end of the Quabbin Reservoir, is the county's eastern-most town. Specific obstacles for a thriving rural community include lack of transportation and local job options, a struggling downtown with little successful social space, and a lack of quality affordable housing. The goal of this thesis is to propose an intervention that begins a dialogue with some of these challenges, looking at new options for connecting home, work and community as the beginning for a developing framework that is able to bring Ware into a more holistically sustainable future.

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CHAPTER 1

INTRODUCTION

In recent decades, the field of architecture has begun a significant, critical shift towards considering the impact of the built environment on the planet. To do this requires understanding our contribution to global climate change, beginning to change modes of standard practice to create buildings and infrastructure that mitigate this contribution, and adapting to the future impacts that the changing climate will bring. But what does it truly mean to "sustain" something? The most commonly quoted definition, developed in 1987 by the World Commission on Environment and Development (usually called the Brundtland Commission), stated that "sustainable development in development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[1]

However useful a starting point the Brundtland Commission may have provided, this definition may create more questions than it really answers. What are the needs of present communities? How do you predict the needs of future generations, which may be significantly different from our current needs? What types of development will support both of these goals? A significant body of research has developed in the time since the report was issued that attempts to address some of these questions.

Increasingly, however, the field is discovering that, while there may be some overarching ideas and strategies than translate between different localities and contexts,

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1 United Nations General Assembly. *Report of the World Commission on Environment and Development: Our Common Future*. March 20, 1987. A/42/427 Chapter 2, Paragraph 1.

the answers to some of these questions become extremely place and community specific. The adaptation needs of coastal communities differ significantly than those of arid interior zones, and strategies appropriate for urban Bangladesh will differ significantly from those that should be used in rural Massachusetts. A particular trend notable in recent research is one of a focus on the urban context.

The need for improved urban sustainability is clear. Urban settings house an increasing portion of the world's population in a fairly small percentage of the world's land[2]. Therefore impacts of improved sustainability reach a larger population, and negative effects of climate change may also be more strongly felt. However, an overly specific focus on the urban context has some inherent risks along with its benefits. If 50% of the world's population lives in urban settings, then the other 50% is not being reached by strategies focused exclusively on cities.

Still, many ideas underlying sustainable urbanism may be applicable to rural and suburban settings, if filtered and synthesized for those contexts. Decreasing reliance on cars by offering other modes of transportation can be accomplished in rural areas through public transit or car sharing. Maintaining local stores and services bolsters the economy, preserves the sense of place, and prevents frequent long drives. Clustering groups of houses together creates community support and increases infrastructure efficiency, while keeping the open space and landscape that small towns cherish. The key factor in these strategies is developing them to be appropriate for the rural character of a small town.

Another challenge that has been increasingly controversial in the United States is the social acceptance and acknowledgment of climate change. Significant portions of the

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2 UN-HABITAT. *The State of the World's Cities Report 2006/7.*

population are skeptical or in denial of the future, refusing to uproot their lives to accommodate science they do not trust. Rural populations may be more susceptible to this when they see only strategies that do not really apply to their setting. By divorcing the issue from their cultural context, activists imply that those in rural towns cannot be truly sustainable unless they are willing to abandon their location, livelihood, and cultural heritage, which can only increase the instinct towards skepticism, fear, or denial. Susanne Moser studies the impact of social factors in climate planning, and found that social factors play a significant role in willingness to act or seek action[3].

In addition to the impact on global environmental challenge, our understanding of sustainability fails to truly take into account the ways in which social factors play a much larger role in what makes a community sustainable. A significant portion of the cultural heritage of a place, the things that make it a unique location, is found in intangible aspects like community gatherings, stories, historical, and cultural importance attached to specific locations. What happens within a space plays an enormous role in place-making. The values and priorities of a community ultimately need to be met in a way that is sustainable for that place, not altered to match a universal vision of a sustainable city.

The social sustainability of a place is often forced into the background when faced with the realities of environmental and economic initiatives. However, it is this social and cultural sustainability that form the bonds between community and place, making a space effective or ineffective. When towns shift from local rural communities to bedroom commuter communities, as has been occurring in Ware for the last few decades, it creates a divestment from the cultural context. If our current understanding of the balance

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3 Susanne Moser and Lisa Dilling. “Making Climate Hot.” *Environment*, (2004):37.

between social, economic, and environmental factors holds true, a reinvestment in social spaces for a rural community will significantly increase the sustainability of the town, bolstering both economic and environmental initiatives.

This thesis explores the literature surrounding contemporary thought on environmental and social methodologies in architecture and planning, in both theory and practice, and examines their relevance in the particular social and economic context of Ware, Massachusetts. It attempts to frame broader ideas of the place of environmental aesthetics, the ability of the built environment to transform human behavior, and a reconsideration of methodology to create a more holistic and symbiotic set of opportunities for interactions between members of the community and their history, environment, economic future, and each other. While this set of goals is ambitious, it is important to recognize that any one intervention cannot effect significant change on its own. It must be part of a larger movement within both the community and the built environment that makes steps towards a more future that truly sustains the town, economically, socially, and environmentally.

CHAPTER 2

LITERATURE REVIEW

David Orr – Human Ecology as a Problem of Ecological Design

Chapter 2 of *Nature of Design: Ecology, Culture, and Human Intention* by David Orr is titled "Human Ecology as a Problem of Ecological Design" and examines the relationship between human behavior and the built ecology, including several different schools of thought in the modern environmental movement. Orr argues that the crisis environmental situations we are facing today are due to a "design failure" occurring between human understanding of the environment and the ways in which nature actually functions, and posits that a recalibration of our behavior and methodology in interacting with design will reconnect us with the environment in a way that will alter the current course of global destruction.

A lauded environmentalist and a professor at Oberlin College, Orr approaches design from the environmental sciences discipline. *Nature of Design,* published in 2004, follows previous books on ecological literacy and human interactions with the environment. It is his first book specifically focused on design, but not his first time approaching the topic, having written previous articles on the subject including "Architecture as Pedagogy" (published in the journal Conservation Biology in 1993). Orr, a pioneer in modern sustainability, follows in the legacy of ecological thinkers like Aldo Leopold, advocating for a strong association between humans and the environment as the

only way to truly create a culture of stewardship and connection that has the possibility to restructure societal consumption of resources.

Orr frames the issue of design as one intrinsic to "human ecology", the ways in which different cultures provision themselves or modify their environment. Since the beginning of the industrial revolution and the environmental effects that it precipitated, there have been many different theories on the correct way for humans to interact with the environment to best preserve it. They usually range from restricting access to the environment so humans cannot further damage it, to notions of "liberating ourselves from the environment." Much of "post-industrial" culture is framed around the advance of technology as the salvation and solution to any human problem. Orr discusses Postman's framework of this focus on technology: a progression from Simple Tools to Technocracy to Technopoly, in which technology becomes increasingly a goal on its own independent of specific causes as it eliminates alternatives to itself in humans' methods of interfacing with the world.

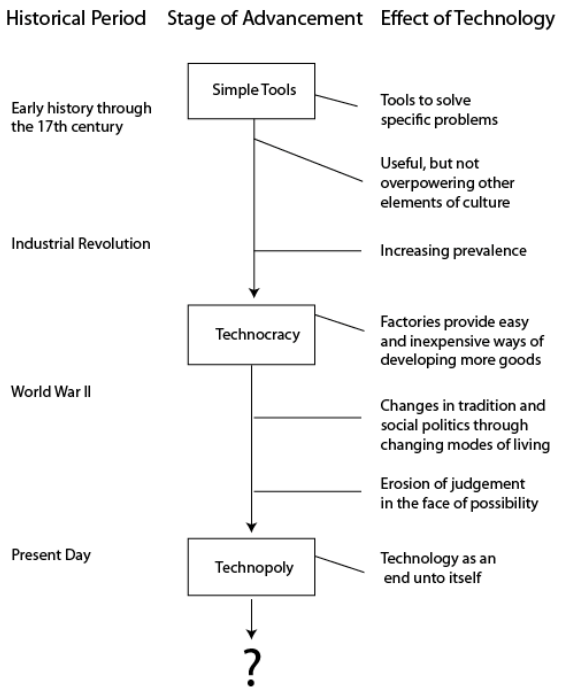

Figure 1: Orr's application of Postman's stages of technological evolution from tool to technopoly, Galaski, 2013

Orr takes a different approach to the preservation of the “natural” world, placing himself within the framework of a number of other contemporary environmental thinkers. Instead of relying on the progression of the same ideas about technology and design, he suggests a restructuring in the ways in which we think about these disciplines, proposing an interdisciplinary revolution that transforms intention, not just results. While Orr doesn’t explicitly address the question of urbanism, the proscriptive access to nature and laudation of technology that he is opposing is one that often goes hand in hand with an emphasis on the hyper-urban context. This, combined with Orr’s preference for utilization of lower-technology strategies may put him in a category with theorists like New Urbanism’ Andrés Duany, the creator of the ‘transect’ model of urban and rural zones, and others who focus on a return to passive or historic strategies of interfacing with the natural world.

While Orr comes from a background of scientific rigor, this article places him more in a naturalistic framework, looking at the importance of interdisciplinarity and the connection between different groups, and suggesting ways of thinking outside of the dominant paradigm or the “Default Setting”. His viewpoint is still somewhat one-dimensional in its attempts to break out of the system, however, and he does not quite reach the analysis of interconnected systems that create a cultural context needed for the truly emancipatory framework he appears to be aiming to achieve.

Despite the fact that Orr's body of writing is fairly contemporary, it has quickly been adopted into certain areas of the rapidly evolving environmental movement. While some criticize Orr as being preaching or imposing his own ethics onto humanity as a whole, this is probably also the root of his success with those whose morality aligns with

his. The manner in which Orr connects ethics, lifestyle, and design as intrinsically interrelated speaks strongly to the development of architecture that teaches, and design that brings about positive change.

An in-depth reading of Orr brings up a number of questions as to the role and limits of design in the shaping of human culture. Can design actually change the trajectory of cultural progression? Does architectural theory and practice have the ability to “transform human intentions” and how? Orr discusses how little we know about the earth, and the dangers of assuming that we can account for its variables and predict the effects of changes that we make. Does that not also hold true for human social interactions, which can prove equally complex and subtle?

Orr's work, though its influence can be seen in many places, is largely theoretical. Due to the sweeping breadth of his statements, Orr's work doesn't engage with any particular depth on the subject of how to apply his theories in practice. His work poses questions that have great potential but, however compelling they may sound, need to be unpacked in a particular time and context to test their applicability.

Orr's focus on connecting to nature makes him particularly applicable to an agricultural setting. Placing a high value on technological solutions may be one of the significant places where the environmental movement struggles to connect with more conservative rural communities such as Ware. Therefore, adopting Orr's more passive and historical approach to environmental design may be a more appropriate way to address an environmentally sustainable design within the context of Ware.

Orr also touches briefly on biomimicry, an emerging field of design that seems to apply the type of restructuring of intention and process that he espouses. A philosophy with applications ranging from household cleaners to medical treatments to skyscrapers that is only now gaining recognition in the broader design world, biomimicry looks to natural structures for innovation and inspiration in human invention. Even if directly biomimetic strategies aren't utilized in the final design, looking to natural solutions for interacting with environmental forces on the sight may be a fruitful avenue of thought for creating a design aesthetic that reconnects the downtown to its natural surroundings and agricultural roots.

Susannah Hagan – Taking Shape: A New Contract Between Architecture and Nature

In *Taking Shape: A New Contract Between Architecture and Nature*, author Susannah Hagan suggests that those interested in sustainable architecture need to include both form and operation as key criteria for an ecological framework of design. She states that buildings have an impact on the climate significantly out of proportion with their individual energy usages, due to their immense power as iconography and their ability to act exemplars of a concept or movement. To this end, Hagan is arguing for the development of a new paradigm of environmental architecture that is both sustainable in its function and identifiable in its expression.

Hagan is an academic and a researcher, writing primarily in the context of British academia. She is a professor at the Royal College of Art School or Architecture, and is the founder of Research into Environment + Design or R_E_D. *Taking Shape* was published in 2001, which puts it into a contemporary context with, or just in advance of, the early stages of the current sustainability movement, including key texts such as Cradle to Cradle by William McDonough and Michael Braungart (2002) and the development of LEED (1998) and other similar rating systems.

Hagan begins by discussing the current schism in the field of sustainable design, which divides architects into two categories: one, arcadian and historicist, argues for a low-technology approach requiring a return to pre-industrial ways of life; the other, a

rationalist camp, is focused on contemporary technologies and is often utilitarian in form to the simplistic extreme, considering everything else to be unnecessary and wasteful.

Hagan discusses, however, that a significant (and increasing) number of architects and designers are subscribing to neither of these camps. They are considering both form and function as mutually compatible and mutually necessary elements in any design that is to affect significant change. These argue against the thought that sustainable architecture is required to be formally conservative, and the thought that technology must be considered fundamentally exploitative.

This middle ground brings to the theoretical table an important focus on cultural and conceptual elements of sustainable thought. Buildings act as exemplars, as Hagan points out, not by their power to change the meteorological climate, but the cultural one.[4] While architecture as phenomenology and the ways in which people perceive space have been critical considerations in a movement of architectural theory that arguably begins with philosophers such as Heidegger, the question of the cultural expression of sustainable architecture has not been thoroughly explored.

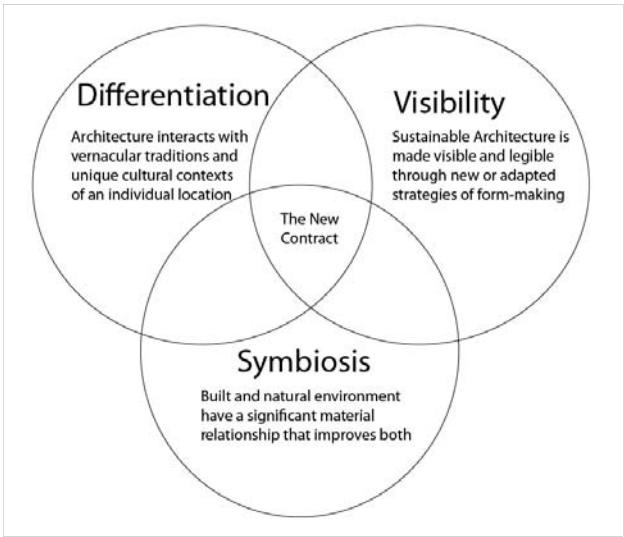

Figure 2: The three key criteria of the New Contract, Galaski, 2013

4 Susannah Hagan, *Taking Shape: A New Contract Between Architecture and Nature*, (Oxford: Architectural Press, 2001), xiii

Hagan argues for three key aspects of a successful sustainable architecture: symbiosis, differentiation, and visibility. Symbiosis is a concept original to the biological sciences where it describes the living together of two unrelated organisms, usually in a mutually beneficial arrangement. Hagan applies the idea of symbiosis to the relationship between the built and the natural environment. This is the more operational or function-oriented aspect of environmental design: buildings need to use less energy, consume fewer resources, and create fewer pollutants in their creation and maintenance. Instead of only being consumers, buildings should form a symbiotic cycle with the natural systems that they inhabit, improving them at the same time that they take resources from them.

The idea of differentiation is less of a theory being developed by Hagan, and more of an inquiry that she is posing. Do existing formal languages morph and change as they are influenced by environmental strategies? If architecture is largely affected by vernacular movements and different climate conditions throughout the world, does differentiated architecture oppose a common “style” or legibility? Hagan does not profess to answer this question, but it is clearly a critical question that the sustainable architecture movement needs to answer.

.The third criterion suggested is visibility. If the power of architecture as a driver of sustainability is in significant part due to its function as a cultural signifier and exemplification of sustainability, then it must be clearly legible as sustainable architecture. The development of a new formal language that is exclusively ‘sustainable’ or the adaptation or the assimilation of an existing formal movement into the sustainability movement are two options for developing this visibility. However, this may be contradictory with the idea of differentiation, and reforming or adapting vernacular

and culturally relevant styles into the sustainability paradigm. Although I have been unable to find direct critiques of Hagan's work, it seems that this potential conflict between two of her three core pillars needs further consideration or creates a serious flaw in her "new contract"

The development of a new formal style that is iconographic of sustainable design is a possibility that might bridge a growing gap in the architecture field. Many sustainable design practitioners (Hagan's rationalists) feel that other architects are overly concerned with formal systems and structural explorations that are wasteful of energy and materials. On the other side of this divide are architects who avoid association with or application of sustainability theory due to the impression that it prevents formal expression and stifles creativity. Hagan's visibility criterion may appeal to these practitioners and bring them into the sustainability movement, while its balance with the criterion of symbiosis – an operational requirement for the building – should satisfy the rationalists as well.

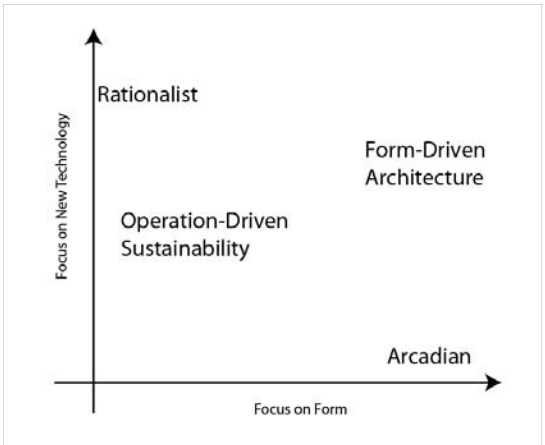

Figure 3: Hagan sets up two sets of opposing camps. Here they are considered in relation to their emphasis on modern technology and formal expression, Galaski, 2013

The question of visibility and the city also seems to link Hagan to the work of Kevin Lynch. Does a larger pattern of "visible" sustainable architecture reframe the way in which people interface with the city as a whole? If techniques from Lynch could be adapted into the three pillars of Hagan's new contract, would another way of viewing and understanding the city emerge?

The rifts that Hagan describes, between arcadian and rationalism, between form-maker and environmentalist, and the quandary left to those who do not solely adhere to either pole, are issues facing the field of architecture of which I was already aware, and grappling with. This schism is one I have faced in my own design work when I find myself questioning the importance of 'unique' or new formal expression in architecture in the face of the enormous need for operational sustainability. Hagan's contract provides significant fodder for consideration of the ways in which these different considerations may be more compatible than I previously believed. Additionally, building upon her ideas of symbiosis have been paramount to the development of my design program.

The question of aesthetics is critical to consider when working in a context such as the Ware Millyard, when many of the buildings surrounding the site are part of a similar historical time and look. A project with ambitious social goals might potentially be hampered by an approach that does not connect it to the tangible heritage of the community, creating a rift between the new and old that would disrupt the efficacy of the proposed community strategies. The Sidwell Friends Middle School is a project with similar intentions. Discussing the project, James Timberlake said, "The system itself, rather than a representation, is the ethic rendered aesthetic."[5] This method of influencing and creating design through environmental strategies is an example of merging the ethic and the aesthetic, two things that are not as divorced as they often seem. Hagan suggests a potential path that is both appropriate and innovative, creating a building that is a stepping stone between an old heritage and a new future.

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5 "Sidwell School" *KieranTimberlake Architects.* Accessed February 7, 2013 http://kierantimberlake.com/featured_projects/sidwell_school_1.html

Allyson Wendt – Building for People: Integrating Social Justice into Green Design

In "Building for People: Integrating Social Justice into Green Design," published in *Environmental Building News* in October of 2009, Allyson Wendt looks at the connections between social and environmental sustainability. Although the article is focused as an overview of the concept of social justice, it manages to make a concise and logical argument in favor of incorporating considerations about social equity into sustainable building practices, as well as offering some concrete suggestions for practitioners on how to begin doing so.

Environmental Building News is an independent publication based out of Brattleboro, Vermont that focuses on providing current and comprehensive articles on environmentally sustainable/responsible design and construction issues. Wendt, formerly the managing editor of *Environmental Building News*, is currently the marketing director at Stevens & Associates in Springfield, MA. Her focus, according to the Stevens & Associates website, is on "sustainability in building and community design."[6]

Due to the nature of the publication, the article is aimed at readers who are already familiar with the field of sustainability as it pertains to environmental and energy concerns. It assumes (and is most likely correct in its assumption) that many of its readers may not be familiar with social equity as part of sustainability, except for distantly as part

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6 "Our People," *Stevens & Associates*, Accessed February 14, 2013, http://www.stevens-assoc.com/about-us/our-people/

of the ‘triple bottom line’ formulation of sustainability, which considers economy, environment, and social equity to be the three pillars of the green movement. Wendt discusses how green building often focuses on the first two pillars while disregarding the third, social, component.

While the concept of social justice is a complex one which can be addressed in a variety of manners from the esoteric and philosophical to the mundane, Wendt chooses to stay grounded in the practical and applicable ends of the spectrum in her consideration. The big questions that she poses are “How do you incorporate these ideas into your work? And what does social justice really mean for a green building?” This is a key gap in much of the conversation about social justice, which focuses on policy, theory and social programming far more often than it does on the abilities of a built environment to affect its occupants in a radical and progressive way. While economic and environmental concerns can be analyzed in a fairly straightforward way in design, social influences are more complex and not always obvious at the scale of an individual building.

Despite the challenges, Wendt discusses several ways in which social justice thinking can be incorporated into a building, from programming and site selection all the way through the process to post-occupancy evaluation. One thing she suggests is that designers need to reframe the paradigm of how we think about the architecture process itself. Architects have tremendous skills as problem solvers, and the profession leads us to cultivate unique talents in bringing together multiple viewpoints and sets of concerns.

While this has been traditionally organized around mediation between other professionals and our client, that same skill set has potential application for a much broader context. One place these skills can be applied early in the design process is

through a charrette – an intensive collaborative session containing multiple professionals and stakeholders all discussing the solution to a specific design problem – which is a strategies that can be applied to issues of social consciousness as well as environmental design. In addition to this familiar tool, Wendt also discusses a new tool being developed by Colorado State University's Institute for the Built Environment called LENSES (Living Environments in Natural, Social, and Economic Systems). This tool will look at the overlay and intersection between the three different pillars of sustainability, and is intended to function as a way to initiate dialogue about a project.

The introduction of social justice as a component of architecture broadens the task of the architect on both ends of the design process. While the participatory process is critical to planning and programming, community feedback is required to establish whether projects are actually fulfilling the social needs they are intended to address both as they are being designed and after they are occupied. This vital feedback will shape the development of the design and aid in refining a designer's process for their next project.

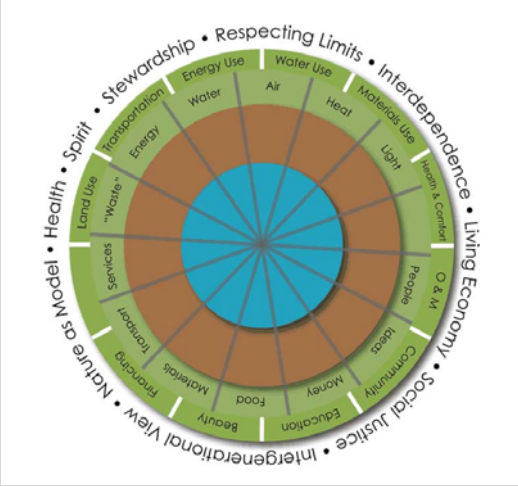

Figure 4: LENSES Graphic: Institute for the Built Environment, Colorado State University

The importance of community involvement in the design process for social justice-oriented designs makes them difficult to conceptualize in the realm of theoretical endeavors. While there are frameworks and processes that can translate across different projects, the needs of the community and the feedback received during the design process

will shape the individual project in ways that a designer cannot anticipate on their own. The question of how to design for these communities without access to them is possibly the most significant challenge of incorporating social justice-oriented into a studio setting, or any other speculative design process. How do you establish the needs of the community for a theoretical project? Given the challenge that many planners and designers face when trying to engage the community with projects that will actually be built in their cities and neighborhoods, is it possible for a student to gain community interest in their project? What aspects of social justice thinking can be accessed independently of the ability to speak to the community?

Wendt offers some strategies that seem applicable from a distance. The Noisette Community, a mixed-use redevelopment of a defunct North Charleston Navy base, started from the basic principle that everyone who worked in the neighborhood should be able to live there. This approach, which also considers economic factors of affordable housing and environmental factors of increased density and decreased travel to work and shopping locations, works with the idea that the very premise of a project can create social mixing and therefore a more equitable living situation.

Another accessible aspect of social justice that Wendt discusses is beauty. Beauty has often been considered the provenance of the wealthy, whereas poor or disadvantaged populations can only afford the bare, functional minimum. As the environmental movement steadily gains ground, the place of aesthetics within it are being debated, and there is a push by some to develop a cohesive visible typology of green architecture[7].

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7 See *Taking Shape* by Susannah Hagan and "Evolving and Environmental Aesthetic" by Stephen Kieran from *Biophilic Design*, among others

Whether social justice has a separate aesthetic or whether the question of beauty as an equalizing factor in mixed social dynamics will be part of the development of an environmental aesthetic remains to be seen.

Wendt closes her article with a checklist towards accomplishing social justice goals. While there may be some problems in Wendt's specific suggestions, they further illustrate the fact that every project needs unique consideration to best serve the community. The rules themselves can be considered, used, or discarded as necessary, but the concept behind them, that of rethinking architectural design from the framework of social needs, provides a strong, coherent foundation from which to frame a project or a practice.

The question of how to equitably design from outside of a community has been a challenge for me, and Wendt's discussion of it – while not delving into the depths of architectural theory – is helpful. While she emphasizes the importance of community feedback, she also offers a number of strategies and questions for consideration that do not require direct participant input. Her argument for the social justice aspects of making a project beautiful are particularly compelling, and have influenced my thinking on light and spatial interactions for different programmatic elements. The idea of mixing economic and social spheres and functions has been instrumental in tying together different elements of my design program.

Spatial Agency – Introduction

In the introduction to *Spatial Agency: Other Ways of Doing Architecture*, authors Nishat Awan, Tatjana Schneider, and Jeremy Till address the core concepts within their idea of spatial agency through a somewhat unusual method: analyzing their choice to change the project's title from *Alternative Architectural Practice*. In the process of explaining the change, they address the importance of reframing the current paradigm of architecture into a radically broader idea about manipulation of space, and the intricate and inextricable role that spatial judgment, mutual knowledge, and critical awareness will have in the transition into a field that explicitly addresses the social components of built space.

Opening with an anecdote from Bruno Latour, who once said of his seminal *Actor-Network-Theory* that there were "four things that do not work with Actor-Network-Theory: the word actor, the word network, the word theory, and the hyphen[8]," the authors begin to address their work and their intent within the book through unpacking the original working title of their project: Alternative Architectural Practice. They begin with the term "Alternative," and the inherent problems of a binary and oppositional positionality embodied within the concept. Framing oneself as "Alternative" or "Other" requires a statement of what "Same" one is disassociating from to define said "Otherness." This concept of Same/Other – which first appears in Hegel and was brought

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8 Latour, Bruno. "On recalling ANT" in *Actor Network Theory and after."* (Oxford, Blackwell: 1999) Quoted in *Spatial Agency: Other Ways of Doing Architecture* by Nishat Awan, Tatjana Schneider, and Jeremy Till, (London: Routledge, 2011), 26.

into contemporary philosophy by Lévinas and further popularized by Edward Said[9] – is a key principle in the way that most people and societies understand their identity. By aligning with the Other/Alternative, the Same/Dominant is immediately required for classification, as they are mutually interdependent. Once that dominant is established, "the alternative is always caught in the shadow of the thing that it posits itself against[10]." Instead of becoming trapped in this paradigm, they chose to establish a position that doesn't define itself by reference to the "center," the existing way of doing things.

They deal next with the term "Architectural," discussing the problems they see in limiting their discourse to the current paradigm of architecture. Within it, they argue, architecture is equated to the building and the building is equated to the commodity of its physical object. If this is the case, as it is in most mainstream architectural practice, the dominant culture becomes one of aesthetics and style instead of one of substance or one that deals with the world as it really is.

In this aspect of their discussion, the authors seem to pick up on the work of John Turner in his article "Housing as a Verb[11]." Within the piece, he argues that when architectural practice is focused on the noun *housing*, meaning the physical house, then modes of standardization and a top-down approach become the main ways of achieving the goal of housing. Standards and codes require everyone to ascribe to a certain model of housing, and the system of banking and loans make the financing for this almost

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9 Said, Edward. *Orientalism*. 25th Anniversary Ed. (NY: Penguin, NY, 2003).
10 Nishat Awan, Tatjana Schneider, Jeremy Till, introduction to *Spatial Agency: Other Ways of Doing Architecture*, (London, Routledge: 2011), 26.
11 John Turner, "Housing as a Verb" in *Freedom to Build: Dweller Control of the Housing Process*, (New York, Macmillan Company: 1972), 148-175.

impossible for most lower-income groups. However, if the verb *housing* is considered instead, meaning the way in which a person or groups of people shelter themselves, the focus is instead on the process and the agency of those being housed. Instead of having to choose from very predefined options, people in this model are in control of developing their own housing, either through building it or directing its construction. Turner argues that this process is inherently more equitable, bringing the agency and control in habitation that has always been the domain of the very rich to people at every scale.

By moving away from the "Architectural," Spatial Agency also steps away from a focus only on aesthetics and style. If space is instead reconsidered based on the new ways of working that prioritize social values and the vents that happen within a space, we move into elements that a designer cannot really control; the scope of the designer's ability to address them is limited. One step towards addressing these challenging issues is changing priorities from just the static space within the economic market to a more holistic consideration of social and temporal events. To move into this methodology requires knowledge outside of the specialist architect, another reason the authors chose to abandon the term "Architectural."

The problems evident in final term from their working title, "Practice," deal again with the traditional architectural paradigm. The "practiced" behavior is one that is premeditated and habit-based, stuck within the dogma of its own existence. This causes an architect's work and the field as a whole to stagnant and to apply the same set of solutions repeatedly irrespective of the individualize condition of the specific project. However, if a more open-ended evaluation can occur (a methodology the authors

associate with the term "praxis" instead of "practice"), then action and solution come from the needs of the situation, rather than a premeditated outcome.

Following their analysis of their previous working title and its unsuitability for their final product, the authors' analysis turns to the terminology they chose to replace it: spatial agency. As with their previous title, they take the term word by word, before analyzing it as an entire concept. They begin with the term "Spatial." By using "spatial", the authors are attempting to step out of the limiting, specialized nature of the architecture field. When the desired result is based on changes in social behavior and social interaction, then the development of the intervention must be a "(social) product.[12]" - a shared enterprise between the specialist (architect) and the community. This creates a space that is dynamic and changeable, engaged with wide forces, providing a richer palette of options for the architect's activities.

The final term they discuss is that of "Agency," one that has long existed in social and political realms, but has only recently been connected to the architectural world. Here, the authors define agency as "the ability of the individual to act independently of the constraining structures of society." In architectural practice, they argue, the architect often gets caught within the binary trap of Agency vs. Structure. If the architect is purely an Agent, then they act as an individual, disengaged from social needs and retreating into aesthetics along. One the other side, if the architect acts only within the Structure of social interactions, then individual acts seem so predetermined by the dominant paradigm as to be entirely ineffectual. However, as with the issue of Other/Same, if we move

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12 Henri Lefebvre. *The Production of Space*, (Oxford: Blackwell, 1991) quoted in *Spatial Agency: Other Ways of Doing Architecture*, (London, Routledge: 2011), 29.

beyond the idea of Agency/Structure as a binary then we can begin to look at the links between the two situations. This opens up the idea of the building *in* society, neither free from it or entrapped in it, but intimately connected to it.

In this, the authors make one of their strongest points. The dilemma of the interaction between architecture and society seems to be one that confounds and divides the professional field. Some movements take the position that their one aesthetic is suitable in every situation, and the architect becomes the dominant Agent. Other architects, as seen in the strong move away from Public-Interest work following its brief emergence during Turner′s heyday, declare that dealing with social problems is too challenging, not part of their training, or beyond their ability to actually effect changes. To really affect change in the social environment of a built space, architects need to understand both impulses, the opportunities and challenges implied by the social structures, and the ways in which the action of the building can shape or reform them

The authors suggest three modes for navigating this challenging duality: spatial judgment, mutual knowledge, and critical awareness. Spatial judgment, the ability to exercise spatial decisions, focuses on the ways in which spatial choices affect and give power to social relationships. Mutual knowledge, discussed at greater length throughout the introduction, refers to a mode of practice that moves beyond the current focus on interdisciplinarity into true transdisciplinary. Here, knowledge is openly shared by all parties involved with a disregard for typical hierarchical structures that valorize contributions from the trained expert over the average citizen. Critical awareness, the third aspect of Spatial Agency involves taking a standpoint that evaluates the context on a deep level, as well as evaluating the agents within the process, including the architect, for

their own approach and potential bias. By bringing these three criteria together, projects emerge that truly consider "Other Ways of Doing Architecture."

One interesting point to note is that the subtitle "Other Ways of Doing Architecture" is a direct paraphrase of *Alternative Architectural Practice*, the discarded working title. It seems likely that this choice was intended to allow for ease of finding the book for those who are interested in the new framework the authors are advocated, but do not yet have the more advanced analysis of the paradigmatic issues or more appropriate vocabulary to find the work easily under its more suitable title. By utilizing this subtitle and by devoting the introduction to a philological analysis of their word choice, the authors do not seem to fully let go of the original thought behind their working title, or the audience that it would have attracted, but simultaneous endeavor to bring that audience forward into the new way of thinking espouses within the term "Spatial Agency."

This work is the first I have encountered within architectural theory that appears to truly attempt, and for the most part achieve, an emancipatory framework of analysis. It approaches architecture from a strongly socially motivated point of view, and delves into analysis of cultural context and interconnected systems on a radically deeper level than those theorists who speak lightly about the generic importance of considering the social context when designing a project.

Immediately, this type of analysis starts to build questions. How does one design the process of interaction with the public needed to develop mutual knowledge? If so many seem to get caught within these seemingly fundamental binaries of Center/Other

and Agency/Structure, what methods can a designer use to extract themselves from that trap? Ultimately, it seems as though such work is a constant process, needing to be re-evaluated at every step and with every new design project. Community participatory processes such as surveys and charrettes seem to get at the beginning of an answer, and analyzing projects that have successfully navigated the seemingly murky waters of this emancipation get one closer still. But the final test seems to be in the actual application, when a designer approaches a project. Even if this framework may be potentially unreachable for my theoretical design, the study of it provides for a fuller understanding and awareness of the social implications of my architectural choices.

Neil Adger – Are there social limits to adaptation to climate change?

In his 2007 paper for the journal *Climate Change*, renowned climate scientist Neil Adger and his co-authors pose the question "Are there social limits to adaptation to climate change?" A focus on this idea immediately gets at a number critical issues that are often overlooked in traditional climate policy. Adger argues that limits to adaptation are endogenous to society[13], which is to say that they are produced from within the societal context. If Adger's argument is accepted as valid, the most critical tools for climate mitigation and adaptation may lie within a social framework of ethical and attitudinal adjustments within different social contexts, rather than significant scientific breakthroughs.

Adger begins by examining the assumptions that underlie contemporary ideas about the limits to climate change response. The primary frameworks for considering these limits have been from ecological, physical, economic, or technical perspectives. These dimensions have played a major role in how we analyze various scenarios and approach policy and planning-based strategies for counteracting the negative impact to human civilization caused by predicted changes. These frameworks are popular partially due to the easy of incorporating them into existing climate analysis tools, and they have been adopted by many of the most prominent organizations working on these issues such

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13 Neil Adger, et. al. "Are there social limits to adaptation to climate change?" *Climate Change* 93 (2009): 335

as the United Nations Framework Convention on Climate Change (UNFCCC)[14]. Adger criticizes these analytical frameworks as being "absolute and objective'," thereby not accurately accounting for the critical dimensions of social involvement and cultural need[15].

Adger broadens this to include ethics, knowledge, risk, and culture as "meta-domains" to explore when considering the social limitations for climate adaptation. He states that the ultimate goals of climate change response must be limited by ethical principles that create limits beyond which the impacts on society are not tolerable. These themselves depend upon diverse cultural values, and different knowledge bases that can impose significant barriers to action.

One place in which Adger's analysis is particularly important is his analysis of the impact of scale, something he analyzes more fully in his 2005 essay with Nigel Arnell and Emma Tompkins entitled "Successful adaptation to climate change across scales"[16]. Any adaptation effort must be placed within its cultural scale to understand the values that drive it. Particularly, private or public decisions, and micro- or macro-scale decisions can significantly alter what values are utilized to establish goals[17].

In considering potential implications of climate change on the community impacted by my project, Adger's analysis develops an important framework for providing the context of developing an interface between climate mitigation or adaptation and

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14 See UNFCCC Article 2 for one key example that epitomizes this kind of assumption, unfccc.int/essential_background/convention/background/items/1353.php

15 Adger, Neil, et. al. 2009. p. 337

16 Emma Tompkins. "Successful adaptation to climate change across scales" in *Global Environmental Change* 15 (2005): 77-86.

17 Adger, Neil, et. al. 2009. p. 340

cultural values and risk-awareness. He states, "When thinking about the inter-generational aspects of adaptation decisions, the diversity of goals of adaptation complicates attempts to define limits.[18]" When considering an aging community, this diversity within the cultural context can have significant impacts on the engagement of different users with varying aspects of the project.

Additionally, marginalized segments of the community, often the most in need of the benefits offered by adaptation due to their limited individual capacities, often are the least likely to support these efforts due to other immediate priorities. Ultimately, building resilience and reducing vulnerability on a micro-scale can be critical to the community, but individual and social characteristics may act as significant limits on those efforts[19]. Individuals tend to respond to immediately and personally relevant issues, leading to small-scale groups such as a town to operate somewhat myopically, particularly in situations that involve significant investment; a trend Ware Town Planner Karen Cullen calls "penny-wise, pound-foolish"[20].

However, there are other elements of climate change adaptation that Adger touches on which are frequently undervalued at the macro-scale, but have significant micro-scale valorization, such as loss of valuable cultural resources and places. When developing a project focused on a small scale, these factors have an even stronger impact than they might otherwise be ascribed. An accurate analysis of their impact, and work to frame a project within the context of the immediate need of the community, is required to

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18 Adger, Neil, et. al. 2008. p. 341
19 Adger, Neil, et. al. 2008. p. 344.
20 Karen Cullen, Personal interview, July 18, 2013.

move a project forward in a way that will successfully address both the need for environmentally sensitive designs and the need for relevant, appropriate projects.

CHAPTER 3

ARCHITECTURAL PRECEDENTS

Farmworker Housing – Mithun and Design Corps

In a 2008 report, the USDA classified farmworkers "among the most economically disadvantaged working groups in the U.S."[21] Their study found the average individual income to be less than $12,500 for an individual, and less than $17,500 for a family of four, placing most farmworkers at or below the poverty line. In addition to significant wage issues, farmworkers face long days, underemployment, and, in extreme cases, conditions amounting to slavery[22]. Many live and work in locations where access to affordable housing is extremely limited, leading them to inhabit overcrowded or decaying residences. The need for inexpensive and quality housing tailored to the needs of farmworkers may be one of the most pressing social needs of rural America.

Two design groups are working on addressing this need in different locations across the country. Mithun is a multidisciplinary Seattle-based sustainable design firm, focusing on integration between planning, architecture, interior design, and landscape architecture. Their project is for the Skagit Valley region of Washington State, a sparsely populated rural region (59 people per square mile according to the 2000 US Census) with

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21 W. Kandel, "Profile of Hired Farmworkers, A 2008 Update" *USDA, ERS Economic Research Report* No. 60, July, 2008.

22 Coalition of Immokalee Workers, "Facts and Figures on Florida Farmworkers" Last accessed March 29, 2013, http://www.ciw-online.org/Resources/tools/general/12Facts& Figures_2.pdf

11% of the population living below the poverty line[23]. The migrant worker population finds jobs in a variety of crop harvests, particularly the berry crops. Current housing options for farmworkers are mainly migrant labor camps, and a survey by the Skagit Valley Farmworker Housing Trust found that almost half of the farmworkers lived in substandard housing, while a third spent more than 50% of their income on housing[24]. The Housing Trust estimates a need for more than 800 more units of housing based on present conditions. Partnering with the Seattle Archidiocesan Housing Authority, Mithun's project for Skagit Valley involves inexpensive prefabricated homes of 580 square feet[25]

The units are designed based on three different levels of sustainability, termed "light green, green, and bright green," with different features and amenities. The "bright green" option is more expensive, but also designed to be net-zero energy, significantly decreasing the burden of household expenses to those who could afford the upfront cost, or were able to gain

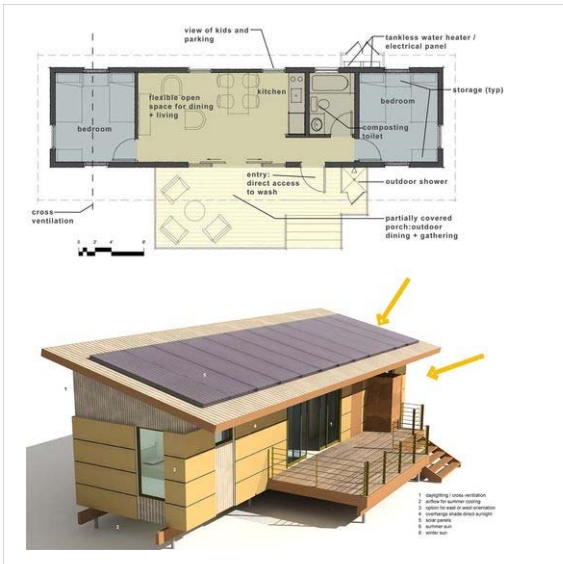

Figure 5: Mithun's farmworking pilot project includes a simple floorplan and varying levels of sustainable amenities. Mithun, 2010

23 "American FactFinder" United States Census Bureau. http://factfinder2.census.gov/

24 Washington Farmworker Housing Trust. "2010-2015 Skagit County Farmworker Housing Action Plan" March, 2011, Last accessed March 29, 2013, http://www.orfh.org/downloads/SkagitActionPlan.pdf

25 "Affordable Green Farmworker Housing." *Jetson Green* May 19, 2009, Last accessed March 29, 2013, http://www.jetsongreen.com/2009/05/affordable-green-farmworker-housing.html

them through grant money or other subsidies. They provide typical housing amenities, but also meet needs unique to the farmworker community, such as outdoor showers and a place to stow items potentially contaminated with pesticides, such as boots, before entering the house.

A significant focus of the project is comfort. Principal Richard Franko states that Mithun chiefly wants to “project a positive image” for the farm buildings and their inhabitants. All three designs include shaded outdoor seating and windows oriented for cross-ventilation. The roofs feature solar panels, or are solar ready. Mithun worked extensively with the Housing Trust and other groups to establish the needs of farmworker residences.

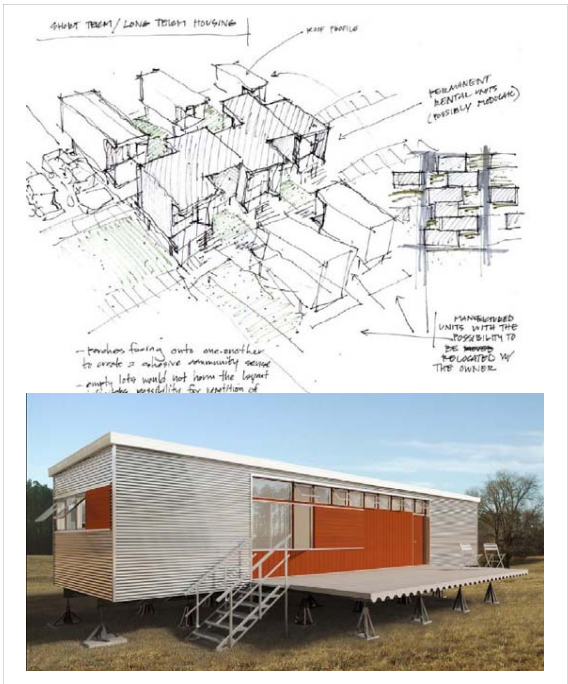

Figure 6: Design Corps’ work in Florida is adaptable and hurricane-resistant, providing longevity to the housing stock for migrant workers. Design Corps, 2004

The second organization addressing the farmworker plight is Design Corps, founded by Bryan Bell. Bell began his career working with Samuel Mockbee, the mind behind Rural Studio, and after a stint working for Stephen Holl, began his career working with the needs of the rural poor. A non-profit justice and community-services-based architecture group, Design Corps’ website states, “Our vision is realized when people are involved in the decisions that shape their lives, including the built

environment." The foundation of the program is to bring architectural and planning skills to rural, low-income communities, allowing the inhabitants to be the drivers behind the changes they want to see.[26]

Design Corps' system brings together a partnership between the farmers and the workers, making the project attractive and affordable to both groups by securing grant money to fund the much-needed housing improvements. Bell has found that often farmers simply cannot afford to provide better housing options. By accepting aid from Design Corps, they are also committing to compliance with a number of Design Corps standards, enforced by a 20-year property lien, which can include whichever requirements the team feels are most necessary to that location, such as "joint housing for married couples" or "no bunk beds" (which can be difficult for aging farmworkers to get into after a long day in the fields)[27].

The process involves bringing a number of parties to the table, including those that often do not have a direct voice in the design process. The farmers and owners are the ones who initially contact Bell, but the team also consults with local nonprofits and community groups, and places most of their focus upon the input of the laborers' themselves. Questionnaires allow them to understand the current living situation, what

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26 "Mission and Programs" *Design Corps*. Last accessed March 29, 2013 https://designcorps.org/about/

27 Julien Devereux, "Design Corps's Humane Housing for Migrant Workers" *Metropolis Magazine*. March 1, 2004, Last accessed March 29, 2013. http://www.metropolismag.com/story/20040301/design-corpss-humane-housing-for-migrant-workers

the needs are in that location, and what cultural backgrounds the farmers, often immigrants, have that impact the way they interact with housing[28].

One of Design Corps' projects in recent years was focused on Central and Southern Florida, an area with a huge agricultural industry, and approximately 300,000 migrant workers who serve as day laborers harvesting the crops, particularly in the tomato fields. The area has been significantly affected by damage from the increasingly active hurricane seasons, which have further decreased already limited housing options. This devastation has created a gap that Design Corps stepped in to fill. Their main goals in this project were to accommodate the diverse cultures of the labor population, while creating a flexible and hurricane-resistant design that would allow for long-term use of the unit.

Both Mithun and Design Corps are addressing the needs of farmworkers with small, affordable, and sustainable housing units designed to meet the requirements of a migrant lifestyle. Working with farmers and non-profit organizations give both groups access to funding and sites where housing is desperately needed. Both groups have involved the population directly within multiple phases of design and implementation. However, there does seem to be some differentiation between the processes and the outcomes.

Mithun came into the project with an architecturally-based goal of creating housing using standard "green" methods and changing the "image" of farmworker housing. The architectural and aesthetic expression of Mithun's project is more

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28 Ibid.

developed than Design Corps' work, evoking modern net-zero projects and traditional farmhouses alike and creating a sleek yet simple visual impact that seems common to certain types of prefabricated architecture. In contrast, Design Corps' work seems to push against the age-old boundary between architecture and building. While the projects may be well designed, they have the straightforward visual impact more common to the 90% of projects that are built without an architect's involvement at all. However, Bell's team comes in without preconceived goals for the design. The needs and the process of the intervention are driven by the situation "on the ground", or more aptly "in the fields," the lived and expressed experience and need of the community. While this separates Design Corps from a traditional architectural firm in many ways, it also provides a model that has potential to reframe socially-oriented practice throughout the field, if it can be adapted and adopted into a broader repertoire within the profession.

Akron Boys & Girls Club(s) – Rural Studios

"Everyone, rich or poor, deserves a shelter for the soul." – Samuel Mockbee

Akron is a small, poor town located near Greensboro in Hale County, Alabama, firmly ensconced in the state's "Black Belt" region, a term coined for its fertile soil, but also connected to its large African American population. 41% of its 356 residents live below the poverty line, and the median income for a family is only $21,250, the county is one of the poorest in the state. When Samuel Mockbee co-founded Rural Studio with D.K. Ruth in 1992, Akron was exactly the type of small country setting he wanted the design students to serve and learn from, and several projects have been undertaken there, including two different iterations of a Boys & Girls Club. These 2 projects show both the enormous potential and the potential challenges of the type of projects taken on by Rural Studio.

Most of the adults in Akron commute to Greensboro or Tuscaloola for work, leaving its youth free, and largely unsupervised, from the time school ends at 3:30 to the time their parents return home around 6:30. Therefore, the youth in this town are particularly in need of gathering spaces and community services. The Boys and Girls Club of America, a non-profit organization dedicated to developing youth programs in sports, recreation, life skills, and career skills, was a good candidate for developing these services, but lacked the space needed to do so successfully, and the funds to build or transform an existing space.

The first project that Rural Studio took on for the Akron Boys and Girls Club repurposed a century-old brick market building, located in the center of Akron, across the street from the City Hall[29]. The building, which had been stripped and weathered down to only a masonry shell when Rural Studio began the project, was renovated and redeveloped as part of a 2nd Year project in 2001. The students developed a design that left the remaining brick largely intact, adding a sharply slanted room, a series of angled interior walls, and an add-on classroom and utility space. By working with an Auburn alum, who donated the materials for the roof, and a local vocational college, which provide the steel-working labor, they were able to keep the cost minimized.

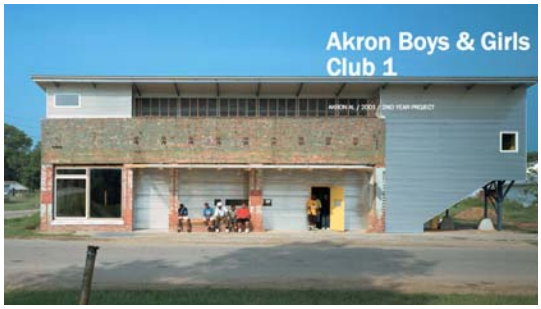

Figure 7: The first Boys and Girls Club project occupied an abandoned building shell (top), intending to give new life to the main street of Akron. It never opened, Oppenheimer, 2002

The project is an ambitious attempt to bring urban life back into the dilapidated heart of Akron. It is located on the town's busiest intersection, near the fire station, laundrette, and gas station, and only blocks away from the school. Members of the town

29 *Rural Studio: Samuel Mockbee and an Architecture of Decency*. Ed. Andrea Oppenheimer. (Princeton: Architectural Press, 2002).

became involved helping to pour concrete and level walls, bringing the community together in the process of creation as well as with the program of the final building. Freear, one of the Rural Studio professors and the director since Mockbee's death in 2001, called the project "the closest you can get to community architecture."

Unfortunately, the Boys and Girls Club never occupied the building. The lot and the building were not public land, but owned by a private citizen. Initially, he had promised to hand over the property rights to the town, but ultimately he refused to do so, making funding from the national organization impossible. The building is currently unused, and has fallen again into disrepair. The reasons for this change of heart are somewhat unclear, though it has been implied that the problem may be due to racial tensions between the white establishment and the poor African American community. (Another project by Rural Studio for a baseball park has been claimed by the white community and black players have not been allowed onto the teams[30].)

In 2007, Rural Studio returned to Akron for a second attempt at creating this vital community resource. The second project includes a 1,500 square-foot recreation space, and a covered basketball court under a large lamella structure that is open to both ends. A form of vaulted roof construction in which short members interlock in a diamond, lamella was chosen for this project due to the ease of construction. Using smaller lengths of material also makes the technique simpler and more affordable than a typical barrel vault. The process creates a structure with a sweeping, high-technology look, left exposed to the

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30 Eric Heiman, "Dispatch from Alabama #2: Building It and (Maybe) They Will Come." *San Francisco Museum of Modern Art*, June 25, 2009, Accessed April 5, 2013 http://blog.sfmoma.org/2009/06/dispatch-from-alabama-2-build-it-and-maybe-they-will-come/.

interior. The new project is positioned with the outside of the barrel vault visually barricading the Boys and Girls Club from a former railroad outpost that has become a popular drug trafficking spot, a striking commentary on the social intentions of the new club, providing a different trajectory for Akron's disadvantaged youth[31]. The project was finished in 2009, after two years of work by the Rural Studio student thesis team.

The Boys and Girls Club of Hale – Akron opened as an outreach branch of the Boys and Girls Club of Western Alabama in February 2010. However, the club faces funding issues and the space is under-utilized[32]. Little information is available about its efficacy as a community space and social resource for Akron's youth.

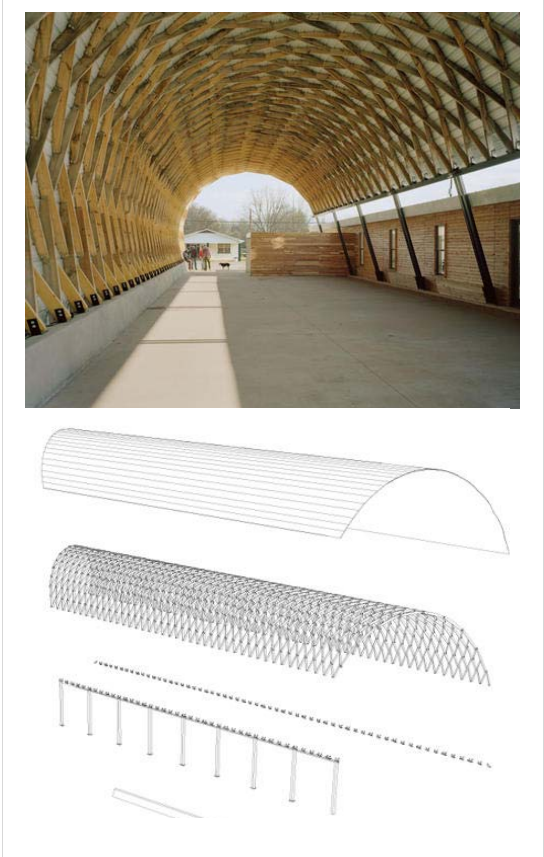

Figure 8: The lamella structure is easy and inexpensive to assemble, providing both shelter and beauty to the basketball court of the second Boys and Girls Club project. Rural Studio, 2009

The story of the Boys and Girls club project spans two buildings and almost ten years. While it shows inspiring architecture with an important social mission, it also illustrates some of the challenges that exist in public-interest architecture. The first Boys and Girls Club had community support during construction, but afterward faced a logistical and legal conflict that prevented it

31 Suzanne LaBarre, "Life After Sambo." *Metropolis Magazine*, July 22, 2009, Accessed April 5, 2013 http://www.metropolismag.com/story/20090722/life-after-sambo.
32 Eric Heiman, 2009.

from ever opening, while the second faces a lack of funding that leads to an often empty location. While architecture has the ability to effect enormous community changes, these project show that there are limits to this reach, and that other efforts within the community to improve economic and social conditions need to accompany an architectural intervention for it to be truly successful.

Figure 9: (Clockwise from top left) A section through the Boys and Girls Club; the challenging site context; community members inside the classroom; the completed building. Rural Studio, 2009

Cobb Hill Cohousing

"We need people willing to work seriously at human community and at loving this land, caring for it, and making it productive[33]*" - Donella Meadows*

Hartland, Vermont is a town of 3,223 people nestled on the New Hampshire border in rural southern Vermont[34]. While most think of this type of rural setting as involving single homes on huge lots, even for those not actively working the land, Hartland boasts a notable exception. Cobb Hill Cohousing is a 22-unit, 60-person cohousing community, located on 260 acres of land. Rather than dividing this acreage into 5-10 acre plots, the houses are clustered into a small village, leaving the remaining land protected under the Upper Valley Land Trust. This rural community combines principles of cohousing with sustainable land management – focusing on ecological farming and forestry. Their unified vision allows for the development of their land to tie directly into the development of

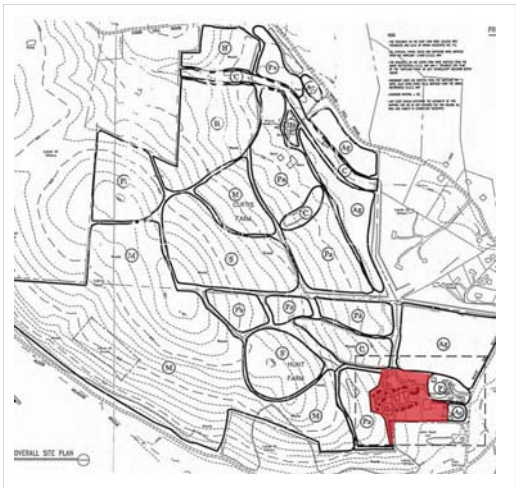

Figure 10: Cobb Hill Site Plan – Developed housing area marked in red. Cobb Hill Cohousing

33 *Melissa P*asanen, "Cobb Hill: the transformative power of community," *Burlington Free Press*, October 30, 2011, Accessed November 3, 2013, http://www.burlingtonfreepress.com/article/20111030/GREEN01/110300309/Cobb-Hill-transformative-power-community-.

34 "Welcome," Hartland, VT, Accessed November 3, 2013, http://www.hartland.govoffice.com/

their community, focusing on skill-building, consensus-based communication, and synergy between the individuals, the community, and the land[35].

Founded by renowned environmental scientist and scholar Donella "Dana" Meadows, Cobb Hill has its roots in the practice of sustainable living as participation in a system. The community connects with the rural landscape in a number of ways. Most of the land has been cultivated and protected as agricultural (85 acres) or forestry (165 acres) lands, including significant amounts of wetland conservation[36].

Figure 11: Top: Cobb Hill residents come together for community events in the evening. Peter Allison

Bottom: Workers on the Cedar Mountain farm, owned by two Cobb Hill residents. Cobb Hill

Despite its remote location, Cobb Hill is still convenient to jobs. Many residents work on site in one of the seven community-owned commercial enterprises – they sell community supported agriculture (CSA) farmshares, dairy, cheese,

35 "Cobb Hill Principles," *Cobb Hill Cohousing*, 2011, Accessed November 3, 2013, http://cobbhill.org/about/principles.
36 Melissa Pasanen, 2011.

frozen yogurt, honey, maple syrup, eggs, sheep, and mushrooms – or in the office building located in a converted farmhouse. Other members carpool to work, thereby reducing emissions. Meadows' Sustainability Institute, a non-profit "think-do" tank designed to test and apply her systems thinking principles to real-world economic, environmental, and social challenges where some community members work, was originally located adjacent to the village, but has since been relocated to nearby Norwich, VT.

The houses are built with ecological sustainability in mind. A wood-fired gasification boiler heats all of the units and the Common House, and also provides back-up to the solar hot-water system. The homes have composting toilets and solar panels[37]. However, the true goal of Cobb Hill is the development of an authentic community that utilizes a unique blend of individual enterprises and communal projects to create a thriving and fairly self-sufficient miniature village.

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37 Kathryn Flagg, "It Takes a Village," *Seven Days – Vermont's Independent Voice*, September 19, 2012, Accessed November 3, 2013, http://www.7dvt.com/2012vermont-intentional-communities.

Estudio Teddy Cruz – Living Rooms at the Border

One of the most controversial and complex evolving landscapes in the United States lies along the Mexico-California border. San Ysidro is the south-most district of San Diego, lying immediately north of Tijuana. Initially developed along fairly uniform suburban lines, the area has found itself with a significant Latino population, including both immigrant and naturalized citizens. Truly addressing the needs of this community requires reconsidering the boundaries of home, work, socialization, and migration[38].

Estudio Teddy Cruz has garnered international recognition for its work in San Ysidro, focusing on a collaboration with community-based nonprofit organizations such as Casa Familiar, a group that helps the local community in areas of immigration, educations, and job placement. Cruz driving philosophy is one of effecting existing environments through shifts in policy and infrastructure, what he calls a "collaborative, sociopolitical approach to design." One outstanding project to develop out of this joint effort is the Living Rooms at the Border.

Figure 12: Context: Collaborative, interactive approach to infrastructure and design Estudio Teddy Cruz, 2010

38 "San Ysidro – Busiest Land Border on the Planet," *San Ysidro Chamber of Commerce*, Accessed November 3, 2013, http://sanysidrochamber.org/viewPage.php?ID=Community_Info

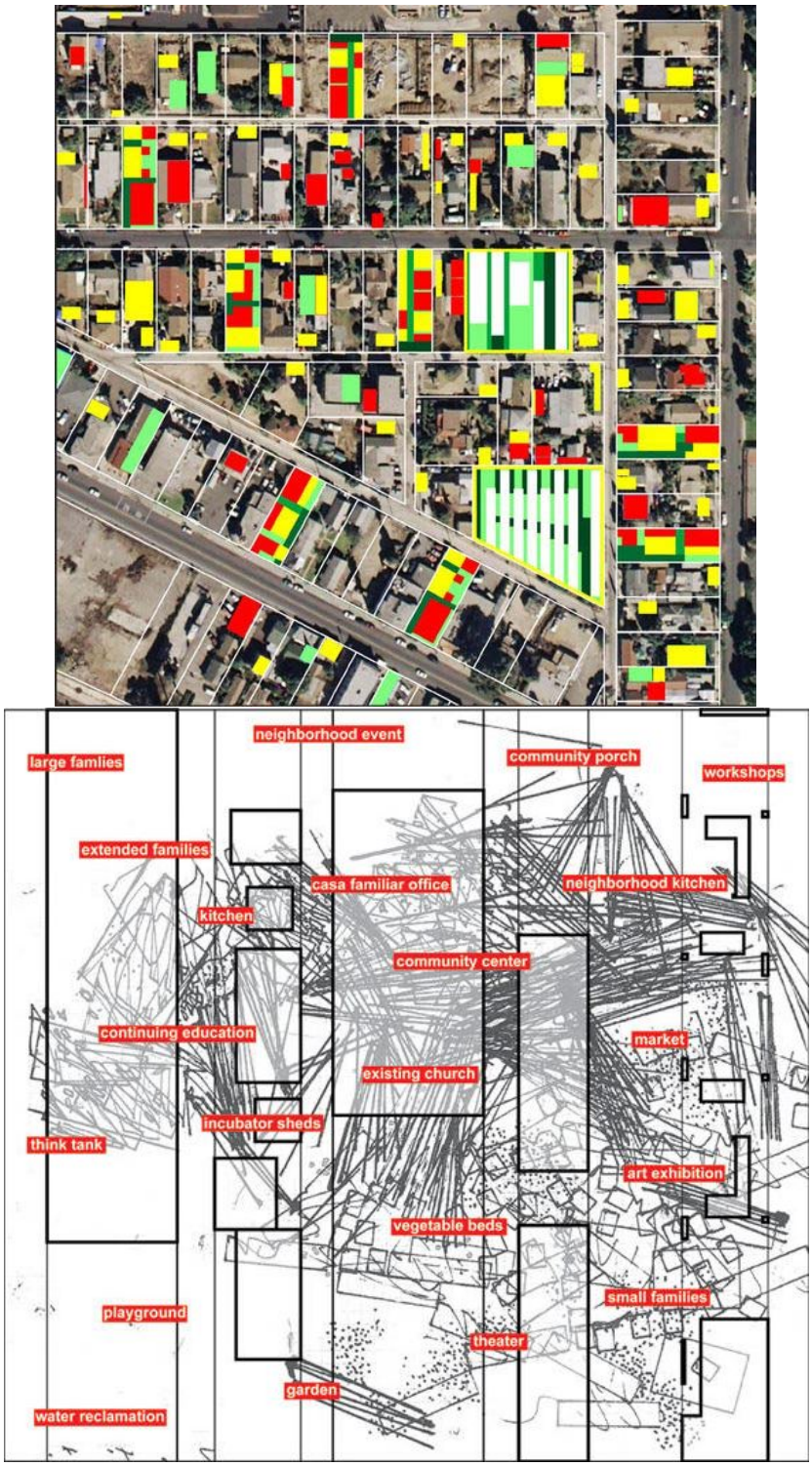

Figure 13: Above: Actual programmatic land use in San Ysidro, much of it "non-conforming." Estudio Teddy Cruz, 2010

Below: Programmatic diagram for "Living Rooms at the Border" shows the connections and movement that occur between different parts of community life. Estudio Teddy Cruz, 2010

In his investigation of the surrounding area, Teddy Cruz quickly discovered that the traditional suburban sub-division was not serving San Ysidro's population well. Instead of dividing, individualistic single-family dwelling situations, the area was full of "non-conforming" land uses that converted excess suburban spaces like attics, sheds, and garages into additional living space, bedrooms for grandparents or cousins, or business spaces such as workrooms and home offices[39].

This language of "adhoc" spaces and dense, multi-use systems were the driving inspiration for Living Rooms at the Border. Cruz worked with the district to reframe zoning restrictions to better reflect existing practices. The project is centered around an abandoned church, which Cruz retrofitted to house the new offices of Casa Familiar and a community center. In new construction located very close to the church, a series of residential, business, and community spaces are developed. Apartments for small and large families, with additional flexible spaces for extended family members hold two corners of the site. Between, outdoor spaces for vegetable beds, playing children, and community gatherings array themselves around public kitchens, art exhibitions, business incubation sheds, and other flexible cultural and commercial functions.

Living Rooms at the Border takes the fabric and rhythm of the existing neighborhood and institutionalizes it. The linear organization mimics the suburban block development, but the gardens, circulation, and shared property create methods of interaction that transcend suburban isolation. Gradations of production from individual to collective create a microcosm of the urban experience, and the urban-scale community.

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39 "Casa Familiar: Living Rooms and the Border and Senior Housing with Childcare," in *Small Scale Big Change,* Museum of Modern Art, (NY: 2010.)

Estudio Teddy Cruz – Hudson 2 + 4

"If you doubt that the derelict shantytowns of Tijuana could work as a template for redevelopment in a quaint, upscale town in the Hudson River Valley, you're probably underestimating Teddy Cruz," states the New York Times[40]. Through his collaboration with a non-profit art foundation in Hudson, NY, Cruz illustrated that his collaborative methodology and sociopolitical approach to design have applications in a multitude of different contexts.

Figure 14: Top: Context of Hudson and NYC. Google 2013

Bottom: Hudson's historic Warren Street. Hudson Valley Journeys

Hudson is indeed a somewhat quaint, somewhat sleepy town located in upstate New York. A 2-hour train ride from New York City, the town followed the rise and decline pattern that is unfortunately typical of much of the Hudson River Valley, Western Massachusetts, and other small New England mill-based settlements.

However, in the 1980s, the town capitalized on the presence of older homes and furnishings, developing a new antique-based

40 Nicolai Ouroussoff, "Learning From Tijuana: Hudson, NY Considers Different Housing Model," *New York Times*, February 19, 2008, Accessed November 3, 2013, http://www.nytimes.com/2008/02/19/arts/design/19hous.html.

tourist economy in place of its previous, failed, industrial drivers. This lead to an influx of people and money, creating the market for significant restoration and redevelopment.

Unfortunately, this new prosperity only lasted to the boundaries of Warren Street, the main downtown stretch. Outside of this “shabby-chic” economy, almost 22% of the population lived under the poverty level[41]. As one visitor put it, “"the remainder of the town... Didn't seem to be quite enjoying the fruits of the restored main street... Two worlds, one block away, and for the most part, not co-mingling." The gentrification and prosperity dropped off almost immediately upon stepping out of the borders of the “public” downtown tourism area.

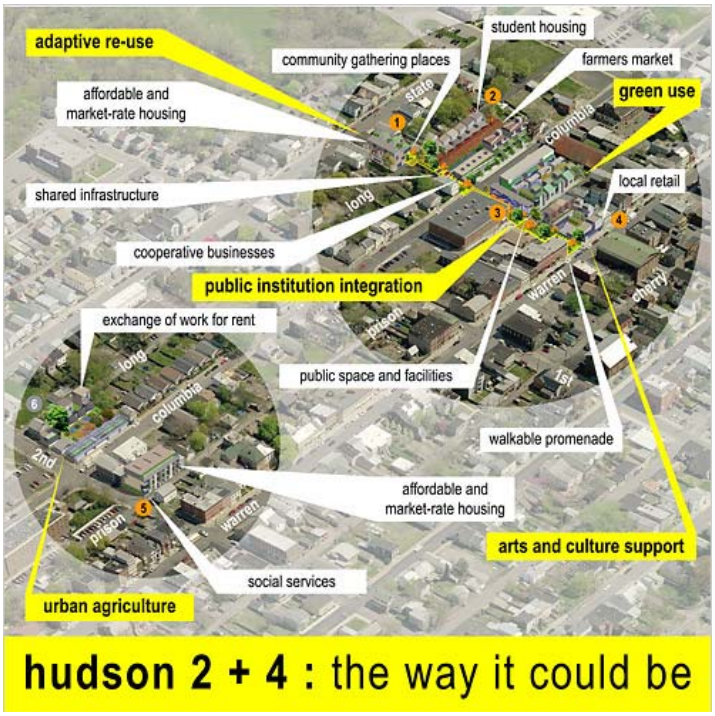

Figure 15: Overall plan for redevelopment project. Estudio Teddy Cruz

41 “When Worlds Collide – The Gentrification if Hudson, NY,” February 11, 2013, Accessed November 3, 2013 http://urbanambles.wordpress.com/2013/02/11/when-worlds-collide-the-gentrification-of-hudsonny/.

Teddy Cruz became involved with the town when he was contacted by a local artist, David Deutsch. Teaming up with Deutsch's non-profit art foundation, and working in close contact with the most disadvantaged groups including Hispanic and Bangladeshi immigrants and the African American community, Cruz created a redevelopment plan for one of the poorest parts of Hudson. The program includes affordable housing, business incubators, playgrounds and community gardens, all linked together with a stretch of narrow park. The arts and cultural wealth of the antique industry are brought off of the main drag into the spaces occupied by the lower income communities through spaces for arts and an outdoor amphitheatre.

As in San Ysidro, Cruz's work addresses the creation of spaces that promote and support existing community interactions, and foster new opportunities for further cultural involvement. Instead of creating a separated area for only the lower income community, he uses the park to bridge the divide between the working class and the antiquers, connecting a series of “leftover urban fragments” into a gradation of public and private spaces with “subtle but unexpected interactions.[42]”

Figure 16: Models for the Hudson 4+2 project illustrate the innovative combination of programmatic spaces and the new interactions they provide. Estudio Teddy Cruz

42 Nicolai Ouroussoff, 2008.

Rick Lowe – Project Row Houses

The northern Third Ward of Houston, Texas is one of the city's oldest African-American communities. One of six historic Houston neighborhoods, the Third Ward includes a number of historic shotgun-style houses, a style popular in much of the South due to its inexpensive construction and a design that optimizes air flow for passive cooling. However, by the 1990s, the neighborhood had developed a number of challenges with drugs and violence, and most of the historic homes were in poor condition.

”Rick Lowe moved to Houston in the 1980s, and was working in large-format art pieces that spoke to the social issues around him. In 1990 he was approached by a group of high school students who posed him an important question: “If I was an artist, he said, why didn't I come up with some kind of creative solution to issues, instead of just telling people like him what the already knew.[43]

Figure 17: Rick Lowe stands in front of duplexes designed as part of the project. NY Times, 2006

43 Michael Kimmelman, “In Houston, Art is Where the Home Is.” *New York Times*, December 17, 2006, Accessed November 3, 2013 http://www.nytimes.com/2006/12/17/arts/design/17kimm.html?pagewanted=all .

"By addressing the houses as "found objects", Lowe began to recreate the community itself around the idea of the artistic act of revitalization.The boundaries between art, architecture, and social activism that this question poses are brought into deeper discourse by Lowe's ensuing revitalization of 22 homes across two blocks of the Ward. By cleaning and fixing the homes, mainly through a team of volunteers and a grant from the National Endowment for the Arts, Lowe sought to bring to life the philosophy of Joseph Beuys who created the concept of "Social Sculpture," art as a conceptual framework which "fashions everything into art and proposes that everything should be approached creatively[44]

Figure 18: "Echo" by Whitfield Lovell at Project Row Houses. NY Times, 2006

The homes developed into a number of different spaces. Some are used for visiting artists, from the local to the international, who live in the houses for a period of time. The houses become both work space and gallery, engaging the neighborhood with their work[45]. Other houses are part of the Young Mothers Residential Program, which provides housing and support for women attempting to finish school after having a child.

The intention of the project is to be a "catalyst for transforming community through the celebration of art, African American history and culture.[46]" Lowe's work is

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44 Laurie Rojas, "Beuys' Concept of Social Sculpture and Relational Art Practices Today." *Chicago Art Magazine*, November 29, 2010, Accessed November 3, 2013 http://chicagoartmagazine.com/2010/11/beuys%E2%80%99-concept-of-social-sculpture-and-relational-art-practices-today/.

45 Michael Kimmelman, 2006.

long-term and far reaching, Project Row Houses has expanded from 22 houses to more than 40, spanning across six blocks of the ward, and including office and commercial spaces, and a park. The maintenance of the shotgun houses preserves the community's history and character, while also developing social responsibility through improvements that are mostly executed by community members.

One challenge of any revitalization project, particularly those focused on the arts, is the question of gentrification. One the edges of the projects area are "new double-garage brick homes." Artists and other highly intellectual "cultural creatives" are known to be a driving force in leading gentrification, rejecting traditional suburban tastes in favor of revalorizing "authentic" spaces. In the two decades that Project Row Houses has been in effect, housing conditions for many residents of the Ward have gotten worse, not better. The project also raises a number of questions as to the nature of art and its role in a broader social dialogue for communities that are struggling. These questions may not be

Figure 19: Shotgun houses of PRH historically (left) and with one restored (right). Project Row Houses

ones that Project Row Houses or social practices in art can answer themselves, but it

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46 "Our Mission" *Project Row Houses, Accessed November 3, 2013* http://projectrowhouses.org/about/mission/.

seems that their presence in the conversation serves to broaden and deepen the debate about how to deal honestly and inclusively with communities like the Third Ward.

Majora Carter – Sustainable South Bronx

Majora Carter has been called "The Green Power Broker" for her work in developing ecologically sustainable projects that support the social and economic well-being of the neighborhoods they inhabit. Carter's work with the Point Community Development Corporation and Sustainable South Bronx provide critical examples of transforming the need for more sustainable development practices into positive community resources and economic revitalization.

Figure 20: Hunt's Point Riverside Park, before (above) and after (below) the redevelopment. Majora Carter Group

Carter's first significant project in her hometown was the development of Hunts Point Riverside Park, the first new park of its kind in the area in 60 years[47]. The project transformed what was previously a point of damage and negativity for the community, both physically and socially – a vacant lot that was frequently used as an illegal dumping ground[48]. The new park reconnects

47 "Biography," *Majora Carter Group, Accessed November 3, 2013* http://www.majoracartergroup.com/bioawards/.

48 "Mayor Michael Blumberg Breaks Ground on $3.2 Million Construction of Hunt's Point Riverside Park," *News From The Blue Room,* July 19, 2004, Accessed November 3, 2013 http://www.nyc.gov/html/om/html/2004b/pr200-04.html.

residents to the Bronx River through a fishing and recreation pier, and amphitheatre, and community organized river-oriented activities. Riverside parks such as this one provide a number of environmental benefits: they absorb rainwater runoff that would otherwise pollute the river through the reintroduction of permeable surfaces; remove pollution from the air, help to mitigate urban heat island effects, and sequester carbon dioxide through the planing of trees; and support walking and biking efforts through the introduction of spaces that are not primarily vehicle-oriented.

It is through these environmental benefits that much of the funding for the park's $3.2 million development was available. Hunts Point Riverside Park also functions as the forerunner to a larger Bronx River Greenway, creating continuous public access to the river and connecting the South Bronx to the Westchester Border through a 15-mile bike and pedestrian path[49]. These project play into important environmental goals for the city, but they are often not as significant a priority in struggling communities, despite the immense local benefits. Through Carter's leadership these efforts also developed as projects in which the community was engaged and felt ownership for.

Using the connections she made through her time with PCDC, Carter set out on her own, developing the Sustainable South Bronx (SSBx) non-profit corporation. The goal was to offer job training and placement for the under-served and underemployed South Bronx population in the burgeoning "green-collar" sector[50]. Many members of poor communities find that they face significant barriers to employment, such as lack of skills and experience, and weak connection to employment networks. The program

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49 “Mayor Michael Blumberg Breaks Ground on $3.2 Million Construction of Hunt's Point Riverside Park.” 2004.
50 “Biography” *Majora Carter Group*.

focuses on providing job training for services like green roof installation and matching graduates with existing companies. It also trains students for "soft skills" that are critical to employment, such as interviewing and resume building.[51]

While the SSBx job training initiative is not a strictly architectural endeavor, it is a critical case study for anyone interested in interventions (architectural or otherwise) that support the formation of sustainable services and communities in currently under-performing areas. The development of a healthy economic condition is often the first step to revitalizing a town and its community, and creating spaces for that type of economic revitalization offers a much more lasting impact than the architecture itself.

Figure 21: BEST Green Job Training participants install a green roof. Majora Carter Group

51 "BEST Green Job Training Program," *Majora Carter Group,* Accessed November 3, 2013, http://www.majoracartergroup.com/services/case-histories/best-green-job-training-program/.

CHAPTER 4

SITE AND CONTEXT

Ware, MA

The town of Ware, Massachusetts lies in the intermediate space between several different contexts[52]. Located at the southernmost tip of the Quabbin Reservoir, Ware has historically been a regional center for the rural areas between the nearby cities of Springfield and Worcester. As part of Hampshire County, Ware lies within the Pioneer Valley and therefore within the purview of the Pioneer Valley Planning Commission.[53] However, it lies east of Springfield, Holyoke, Amherst, and Northampton, and is not connected to the network of public transportation that links those towns, isolating it from the resources available within Hampshire and Hampden counties. Immediately to

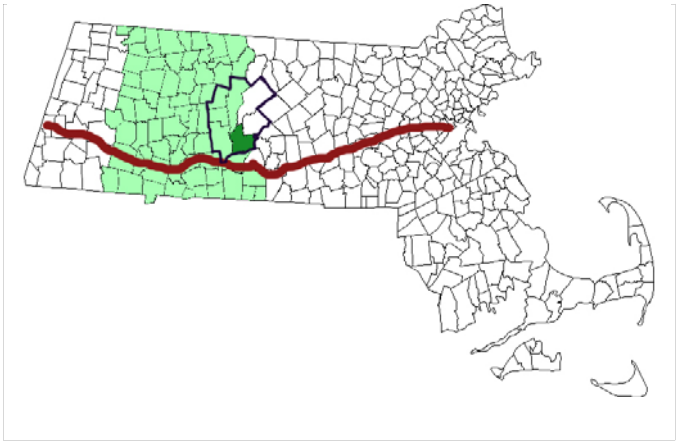

Figure 22: 3 contexts for Ware: The Pioneer Valley (green), the Quabbin Reservoir towns (purple) and the I-90 corridor. Galaski, 2014

52 Belen Alfaro, et al., "Prelude to a Master Plan: Ware, Massachusetts," University of Massachusetts Amherst — Department of Landscape Architecture and Regional Planning, 2013.

53 "What is the Pioneer Valley Planning Commission?" *Pioneer Valley Planning Commission*, Accessed January 18, 2014, http://www.pvpc.org/about/whatispvpc.shtml

the south of Ware lies Palmer and a major exit for I-90, connecting Ware to the East-West corridor that runs from Boston through the middle of the state. In recent decades, this context has begun to dominate Ware, shifting it towards new status as a bedroom community, rather than a self-sufficient town. Many residents commute to work in Springfield, Amherst, Worcester, even Boston. This creates an increasing gap in Ware between those who are wealthy enough to own a car, and therefore can access jobs, and those who are not, and find themselves with very few avenues to attempt to bring themselves out of poverty.

The town of Ware began its life as the "Manor of Peace," a name given by John Read who, in 1716, acquired ten thousand acres between the existing towns of Hadley and Brookfield as part of the "equivalent lands" deal between the emerging colonies of Massachusetts and Connecticut[54]. The land remained in Read's possession until his death, when he deeded some of it for the formation of a local parish. His vision of the "Manor of Peace" remained, however, as the small agricultural town developed around the congregational church. Agriculture and fishing (using the weirs that gave the town its name to catch the once abundant salmon) were the primary means of economic support, but mills started dotting the area within twenty years of its establishment, and by the time Ware reached its centennial, cotton textile production has become the main driver of the town economy.[55]

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54 Alfred Baylies Page, *The Manor of Peace: Ware Massachusetts* (Boston: Author, 1907), Pp. 1-2.

55 "Town of Ware History" *Town of Ware,* Accessed January 18, 2014, http://www.townofware.com/pages/warema_webdocs/townhist

Most of this activity centered on the "Ware factory village," now known as the Historic Millyard, where the Otis Company reigned as the town's chief employer. This remained true until after World War I, when mills all over New England – Otis included – began closing due to the abundance of cheaper labor and modern machinery setups in the South. Citizen engagement and outcry lead to a town buyout of many of the mills, gaining Ware brief national attention and earning in the nickname "The Town that Can't Be Licked."[56] However, the town buyout could not prevent the inevitable decline of American-made goods as overseas competitors took over the manufacturing industry. Today, the only three significant employers are two factories and the local hospital, which all together accounted for fewer than 500 jobs in 2010[57]. Many of the building developed during the factory boom continue to be part of the downtown fabric, including several mills that now house a diversity of business, including a veterinary clinic and a gymnasium as well as storage and light manufacturing.

Figure 23: The Historic Millyard, to the eastern end of the center of town. Google

Another change to the region that occurred around the same time as the closing of the Otis factories would have dramatic effect on Ware and its identity. Over the course of the 1930s the state developed the Quabbin Reservoir from Ware's northern neighbors:

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56 Ibid.

57 David Boeri, “Ghosts of a Booming Milltown Whisper Ware's Past,” *WBUR* September 9, 2010, Accessed January 18, 2014, http://www.wbur.org/2010/09/22/ware-profile

Enfield, Greenwich, Prescott, and Dana. The towns were disincorporated and the residents relocated elsewhere so that the Swift River could be dammed to provide abundant drinking water to the state's capital and flagship city, Boston[58]. Ware obtained much of the land that had previously belonged to the Enfield and Greenwich municipalities, expanding its borders north to encompass much of the lower half of the Quabbin including the dam and Goodnough Dike. This added an abundant and beautiful forested reservoir landscape protected in perpetuity to Ware's already significant natural heritage of sweeping agricultural landscapes and long-term forest cultivation, and Ware residents are fiercely attached to the Quabbin's scenic vistas and hiking trails.[59]

When observing Ware in person, one of the most striking differences between it and more successful Western Massachusetts towns such as Amherst and Northampton, or compared to Eastern Massachusetts towns of similar populations but more vibrant economies such as Hudson, is the lack of an active downtown community. Both Karen Cullen and the UMass Regional Planning studio noted this as one of the significant challenges facing the town.

Figure 24: Goodnough Dike at the Quabbin Reservoir. Galaski, 2013

During a visit of several hours spent mostly in the main downtown area, I saw only a handful of pedestrians, and sat in an otherwise empty Main Street diner. For the

58 "Quabbin Chronology," Friends of the Quabbin, Accessed January 18, 2014, http://www.foquabbin.org/chronology.html

59 Belen Alfaro, et. al.

most part, people drive to downtown, park their cars, walk to a specific location for a specific purpose, and then return to their cars and drive away. The spontaneous community building that happens when people abide in common spaces seems to be almost absent in the downtown, except for during specific, scheduled events such as the recently started Fall Festival.

Current town planner, Karen Cullen, cites the lack of attractions for spending time downtown as the main cause for the lack of pedestrians.

> If you talk to someone [in the Northside neighborhood] and ask them if they ever walk to downtown, they're going to say "No." … There's not enough on Main Street to attract people to walk down there. If you talk to people on the street and ask if they ever walk to Grenville Park [a similar distance], 9 out of 10 times, they're probably going to say "Yes."[60]

Figure 25: A forested area of Grenville Park. Galaski, 2013

Most of the preservation discussions in the town revolve around the town's natural heritage – particularly its agricultural and forestry land, much of which lies in Chapter 60 temporary conservation and could be at risk for future development – and its historic buildings, many of which are in disrepair. However, it seems to be the case that its intangible heritage has suffered the most from recent divestment in Ware common life.

The concept of intangible heritage has become part of the cultural preservation dialogue only fairly recently. The 1982

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60 Karen Cullen, 2013.

Mondiacult Declaration by the United Nations Educational, Scientific and Cultural Organization (UNESCO) was the first to redefine culture to include the "whole complex of distinctive spiritual, materials, intellectual and emotional features that characterize a society or social group. It includes not only the arts and letters, but also modes of life, the fundamental rights of the human being, value systems, traditions and beliefs[61]."

More recent developments in the heritage preservation field by UNESCO and other organizations have expanded upon this definition, expanding the concept of heritage to include not only physical objects, but also rituals, activities, and other cultural events that happen within them. These cultural moments have shifted away from Ware center in the nearly 300 years since John Read settled there. Ware residents go elsewhere, or simply become disinterested in local community entirely. To bring back the thriving small town community that Ware once had, a reinvestment in the town center will be necessary.

This is the argument made by Jay Walljasper in his book All That We Share[62]. Historically, commons such as town centers have been the shared responsibility and shared wealth of a community. Despite the legacy of wildlife biologist Garret Hardin's 1968 essay "The Tragedy of the Commons," communities around the world have managed common resources in an equitable and sustainable way throughout most of human history[63]. Robert Reich argues that reinvestment in the commons is critical to

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61 UN Educational, Scientific and Cultural Organization (UNESCO). *Mexico City Declaration on Cultural Policies.* 26 July—6 August 1982.

62 Jay, Walljasper, All That We Share: A Field Guide to the Commons, (New York: The New Press, 2010).

63 Ibid., p. 21.

long-term economic prosperity. The idea of the commons isn't limited to government-owned public greens such as you find in many Western Massachusetts towns. The Ware River is a powerful common resource in Ware, and the community itself is something that is a shared common that residents can reinvest in to regain a thriving social space.

2 East Main Street

Figure 26: Top: 2 East Main Street, viewed from the bridge across the Ware River. Galaski, 2013

Bottom: American Disposables property. Galaski, 2013

The lot at 2 East Main Street is the first location to become visible when entering the Millyard from the eastern part of town. Presently, when someone crosses the bridge over the Ware River, they are immediately confronted with an overgrown and empty lot that occasionally houses equipment, and a view of the American Disposables property beyond. While the main building is in good shape, several of the adjoining structures are in disrepair with caved in roofs or obvious structural damage. It is, perhaps, indicative of the broader context of the town — a location with strong roots and some thriving elements hampered by a past of neglect and disinvestment, damaged over time.

Once, during Ware's mill boom of the early 20th century, 2 East Main Street housed a mill building, the footprint of which is still present, buried under the gravel and

dirt. The parcel slopes from the street down towards the river, a low wall currently containing the drop to flatten the lower portion for machinery storage. The site is only about 225 feet wide from the river embankment to the access road running between it and American Disposables, placing almost all of it within the most expansive 200-foot option for river setbacks. However, the water level typically sits many feet below even the lowest part of the site, only reaching the land at levels predicted during the 100-year flood[64]. This information combined with the previous development of the site provides a strong argument for rebuilding on it. Developing this site would also be consistent with the town's goal of revitalizing the Downtown and Millyard areas.

Like Ware itself, the site has the potential to interact with a number of different contexts. In addition to being the gateway to downtown it interacts with the American Disposables building, a hydro-power infrastructure located to the south, the historic Fire Station (currently in planning for reuse) diagonally across the street and, perhaps most importantly, the Ware River itself. To the north side of East Main, a series of houses sit between the river and the canal, and the southern tip of Grenville Park—a community treasure — can just be seen beyond. Proximity to the river and visual connection to the park connect the site to the natural heritage that is such a critical part of Ware. In any redevelopment of this site, connection to and interaction with the river's power and importance in the history and current context of the town must be a primary goal.

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[64] "Millyard Site Assessment and Economic Development and Planning Project," Town of Ware, Conducted by Henson Fuller and Daylor, June, 2001.

CHAPTER 5

PROGRAM

The program is comprised of four main categories: residential, community, business, and outdoor programming. The goal of this project is to reconnect the assets and needs of the less advantaged parts of the Ware community. By connecting the project's residents, workers, and visitors in creative ways, many of the needs that occur within one group can be matched to assets or skills possessed by another group. The individual programmatic elements can function on their own, but they are designed to coexist and cooperate together to form a symbiotic whole that has a much larger impact than the sum of its disparate parts. Each piece ties into other elements of the site, or connects to elements of the larger community. This interconnectivity will allow for Ware to take a first step towards returning itself to the vibrant downtown that matches its history and the strong sense of place identity held by many of its residents.

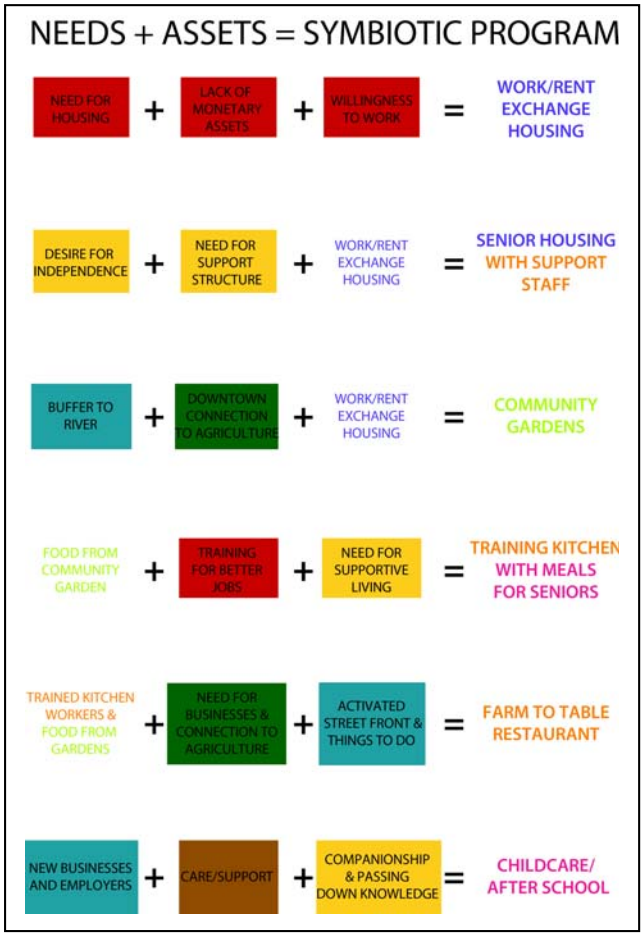

Figure 27: A combination of needs and assets found within the community leads to a unique symbiotic program.

Figure 28: Program laid out in four predominant categories

Residences

The need for new residential options is evident when considering a survey of Ware's current housing stock. Almost 40% of houses were built before the 1930s, and Karen Cullen discussed that Ware property owners and renters have been trapped in a vicious cycle due to lack of incomes that lead to a lot of properties being "vacant because they are uninhabitable… once people's incomes disappeared or started to get lower… people just didn't have the resources to do anything anymore."[65] This has led to Ware

[65] Karen Cullen.

having a lot of low-cost housing that is of very poor quality, but insufficient housing that qualifies as 40B low-income housing or meets other government standards for lower income groups.

The project proposes three categories of residences – one-bedroom apartments for seniors, studios for those participating in the live-work exchange portion of the complex, and two- to four-bedroom apartments for low income family groups. All of these populations have their own requirements and also unique resources and abilities that they can contribute to the community.

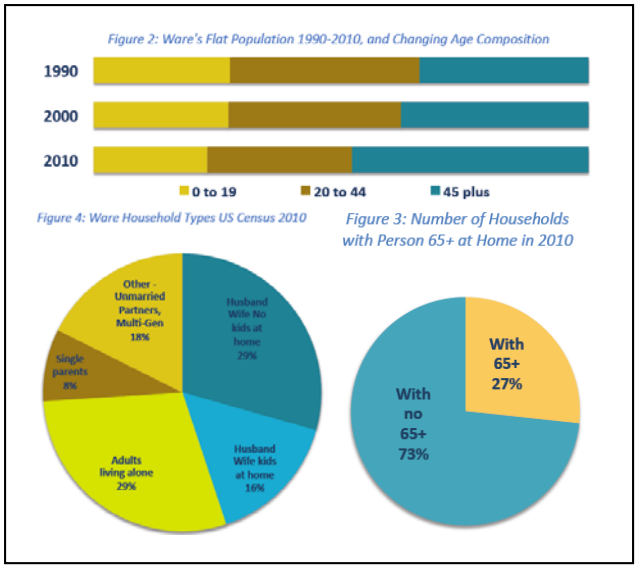

Figure 29: Demographic age and living trends in Ware, MA. Alfaro, et. al. 2013

The overall demographic trend shows an aging population in Ware. The town median age is five years higher than the rest of Massachusetts, and it seems likely that if its 45-54 year old cohort chooses to age in place, retirees will make up an increasing portion of the population within the next decade[66]. Seniors are often living on a restricted income, and need access to additional services and amenities that may be difficult for them to access. However, they have a wealth of experience and knowledge that they have obtained over the course of their lives, and often have time to contribute to the community or to helping with events and activities occurring in the complex.

[66] Belen Alfaro, et. al., 17

Un- and underemployment in Ware has been an ongoing problem. Finding sufficient employment is extremely challenging for anyone who lacks a car, due to the isolation of the town and the lack of local jobs. Those lacking a car also face difficulties in obtaining a post-secondary education – the lack of public transit leaves Ware cut off from access to the Knowledge Corridor that much of the rest of the Pioneer Valley enjoys. This leads to difficulty in developing skills for higher paying jobs, leaving those who can find local jobs trapped in a lower income bracket.

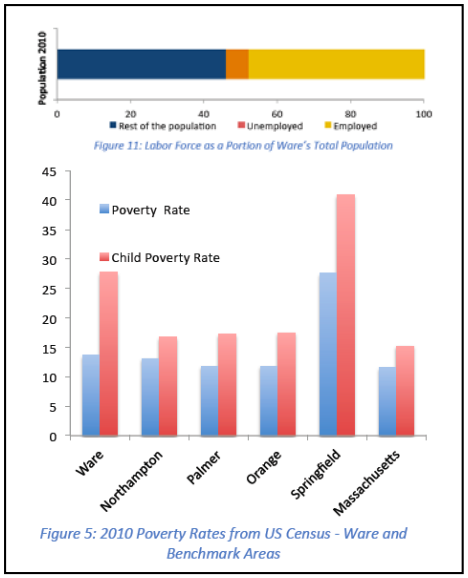

Figure 30: Employment and poverty trends in Ware, MA. Alfaro et. al., 2013

Although this is a problem that must be addressed, it also is a current source of potential for the town, because it means that Ware has quite a lot of available labor. This labor force could be put into good effect in two ways. First, individuals could be hired to provide aid for the seniors that will need services as they age. Second, they could be hired as workers for various other programs within the site, such as the daycare and the gardens. The project will provide live-work exchange housing for these employees, so that they can be trained for these positions without having to worry about maintaining an apartment and car on their current income.

Child poverty in Ware is high in relation to overall poverty levels when compared with the rest of the state; overall poverty in Ware is about 2% higher than the state average, but more than a quarter (27.8%) of Ware's children live at or below the poverty

line[67]. This indicates that one group that is struggling the most financially is families with children at home. Finding safe and affordable housing with amenities for children can be challenging, particularly when parents are often away from home for longer hours than the children are in school. Living in an inter-generational community may offer significant benefits for struggling families.

While the needs of each of these groups (seniors, the unemployed, and struggling families) are partially met by their housing options, they have other community needs as well. One major element of the design intended to address the needs of families is a daycare/after-school program where the children can stay until the parents return home from work. Resident seniors, who may not have family of their own nearby, can support the staff of the school and do activities with the children there. The presence of seniors in the program will also offer “eyes” within the community, making the playground and other outdoor spaces "watched" areas that are safer for kids to play in. The diverse opportunities offered in the program allow for children to grow by interacting with people of different backgrounds, skills, and life experiences.

Living in mixed generational spaces that offer opportunities for investment in neighbor's lives creates a warm and supportive space for elders. Rather than feeling isolated or lonely in their retirement, as many seniors do in the current institutional paradigm4[68], this program allows them to “age in place” and, perhaps more importantly, “age in community.” It provides opportunities to engage with children who need additional community support, with young adults who are eager to learn from their

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[67] Ibid., 19.

[68] Charles Durrett. *Senior Cohousing*. (Berkeley, CA: Habitat Press, 2005), 5.

knowledge, talents, and life experiences, and with their native Ware community at large. The program offers spaces of both action and rest, allowing elders to engage in a lively community but also find repose and connection to nature in their retirement.

Outdoor Space

Tying together the social needs of a rural community requires targeted outdoor programming. While the downtown has many advantages in terms of walkability and use by a broader group, it is not currently connected to the agricultural heritage of the town. This could be rectified through the development of a community gardening program. The two-acre site allows for sufficient space to develop significant indoor and outdoor programming, and innovations in green roof systems mean that it is feasible to create additional outdoor programming above the buildings by making the roofs fertile land. These gardens would be tended by members of the community, either within their own plot or working contribution to the larger gardens, the produce from which would be used within the site for community meals, supplied to the restaurant, or sold at the farmer's market.

In addition to agricultural production, outdoor spaces allow for spontaneous social interaction. Outdoor levels should vary in degree of privacy, from public walkways overlooking the river that are open to the entire town, to private community spaces only accessible to neighbors. At least one of these public spaces should be easily converted into a weekly farmers' market. Spaces in which children can play under community supervision, including a playground area, round out the exterior program.

Community Programming

The community-oriented aspects of the program focus on resources that bring together multiple people and groups throughout its use. Some aspects of the program are inspired by cohousing principles, such as those seen in Cobb Hill Cohousing. Others were developed specifically to fit within the unique abilities and needs of the residents and broader community.

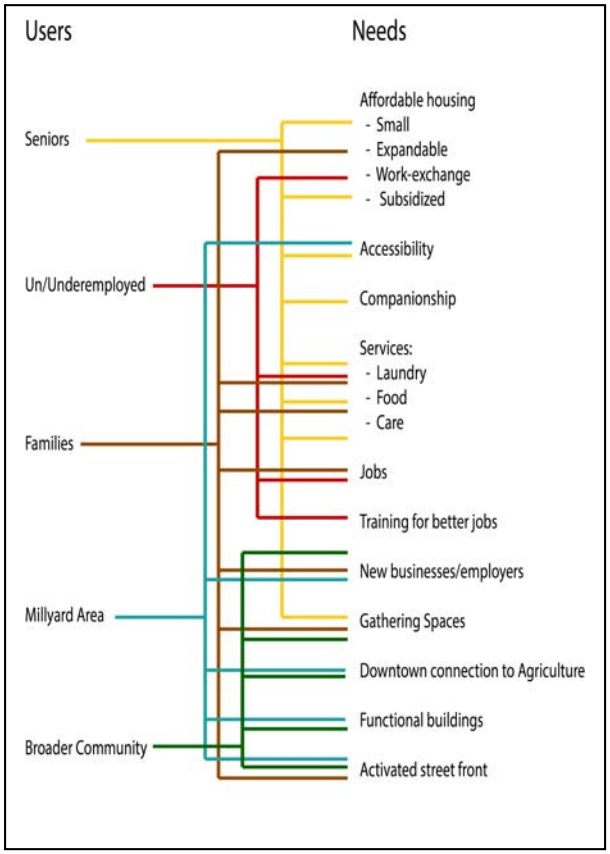

Figure 31: User groups and needs

One major need addressed within the community programming is a large gathering space. This space will likely fill a variety of needs at different points in time, creating an indoor "heart" of social interactions. Meetings, community meals, events, performances, and celebrations could all take place within such a gathering space, populating it with different combinations of people for different events. Small spaces for classes or meetings will allow multiple events to occur simultaneously.

Food is almost always a critical part of community interactions. Cooking together creates social bonds and develops the cultural knowledge of a group. A community-accessible commercial kitchen allows for residents and friends to gather and share over

meal preparation. Meal preparation is often something that becomes onerous as seniors age, and can be a significant factor in preventing them from living independently. One use of this community kitchen can be the preparation of meals for those seniors by the live-work individuals helping with them, which could also allow them to gain Safe-Serv training that would aid them in obtaining other jobs in the future. These kitchens would also be connected with the agricultural aspect of the site, tying users more closely to the ways in which local foods can benefit them in their lives.

A workshop space will allow community members to gather together in creating shared projects. By owning tools in common, the cost for an individual goes down significantly, allowing for a well-equipped work area. Initially, resident-owned tools and community donations could start supplying the workshop, which could be maintained and furnished additionally with funds allocated from the fees or rent of the for-profit parts of the site. This space would also allow older members of the community to mentor others, passing on skills and knowledge they've gained over the course of their lives.

Economic Incubators

The economic aspects of the program are aimed at both bringing individuals into the site for further interaction and at increasing the social capital of members of the community who are currently under-trained for skilled jobs. Restaurants overlooking the River Walk help to make this site a destination for non-residents and can utilize produce from the on-site gardens. Additional office or shop space will contribute to the mixed use feel of the site while offering additional downtown jobs. In addition to retail spaces, the

economic programming of the site aims to improve the Ware economy through offering job training for those who have not had access to secondary education.

Building Bridges

The development of this type of community is not necessarily an intrinsic or easy process. Even residents recruited based on their interest in developing an intentional community may not be equipped with the skills to do this on their own. Other cohousing-inspired communities, such as Petaluma Avenue Homes in Sebastopol, CA and Treehouse Community in Easthampton, work with non-profit organizations who oversee and develop the community, helping to integrate new members, planning programs and events that bring the entire community together, and facilitating community decision-making processes. The offices for such a staff would be on-site, allowing for easy interchange between the staff and the community members.

CHAPTER 6
DESIGN

The design of this project was driven by the two most significant factors that emerged as focal points within my research: the social and the environmental aspects of developing a holistically vibrant and sustainable community. The project was focused on the creation of a mixed-use community space that fosters a symbiotic interconnection between a spectrum of Ware residents. Through this lens, I examined new options for connecting home, work, and community that reflected the needs and assets of the town. These goals lead to a formal design driven largely by two environmental factors: the river and the sun.

River

The connection to the natural heritage of Ware became of focal point with importance for both social and environmental goals of the project. Located next to the Ware River, the site marks a perfect point for downtown connection to the river and other aspects of Ware's history, including its agricultural origins. The connections between this project and the river are envisioned as the first step in reconnecting the natural and recreational identity of Ware to downtown, a major step towards revitalizing interest in the downtown as a destination. This manifested in the introduction of a riverwalk into the program for the site, in the overall programmatic distribution, and in the building form and location.

Figure 32: Map of downtown Ware with proposed riverwalk

The concept of a riverwalk, a dedicated pedestrian zone next to the river, has many benefits. It maintains open space next to the river and creates dedicated pedestrian spaces, usually separated from cars. In Ware, a boardwalk at 2 East Main Street could stand alone, but would ideally be the first leg of a walk that connected south through the rest of downtown and north to Grenville Park.

Just to the north of the site, the Ware River goes over a dam. First constructed in 1824 to develop a canal to power the mills[69], the dam drops the river level well below grade with the surrounding land, making it almost invisible from the road. To develop

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[69] "Town of Ware History." *Town of Ware*. Accessed January 18, 2014. http://www.townofware.com/pages/warema_webdocs/townhist

new connections between downtown and the river, a raised boardwalk becomes one of the key elements on the site, creating a path with visual access to the river.

The river also brings up the issue of flooding, a consideration on any site located so close to the water. At 2 East Main Street, the 100 year floodplain is located slightly above the lowest point of the site. By placing parking below the boardwalk, and elevating the other buildings a few feet above the level of the parking, the inhabited space is brought above the level of the floodplain. Issues of flooding are also addressed in the landscape strategy, placing stabilizing and flood-tolerant plants on the portions of the site mostly likely to have standing water.

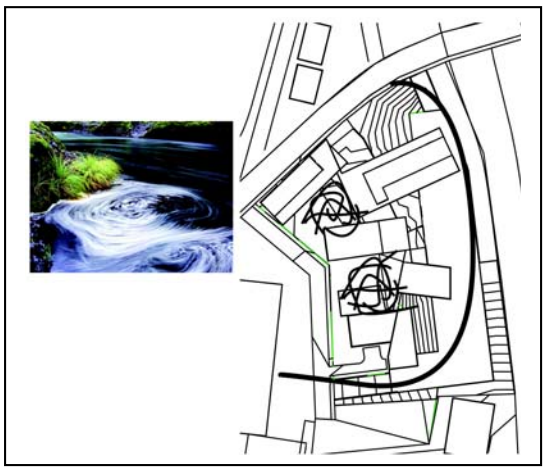


Figure 33: Major circulation diagram

In addition to the development of the riverwalk, the river played a crucial role in conceptual development, providing a metaphor that would organize the main circulation strategy. Within the program, the interaction between public and private elements creates the potential for major tension. One major goal of the project is economic revitalization and developing a renewed interest in downtown public space. However, the largest program component is housing, which requires much more privacy.

The project orients itself on a gradient of public to private moving away from the river's edge. The most public functions – the restaurant, shops, and farmers market – face directly onto the riverwalk, while the more private functions are located further into the site. The buildings take on the role of stones in a river, creating multiple modes and

speeds of circulation. The public promenade is faster-paced, and contains a larger volume of people who occupy the site for shorter periods of time, whereas the private courtyards are sheltered and shaped by the buildings, like water eddying around stones, creating a slower pace with greater mixing.

While the buildings shape the pace and nature of interactions and circulation, the circulation also affects the form of the buildings. On the boardwalk level, the edges of the buildings are cut back to create a smoother path for public circulation, in the same fashion that a river might wear away at a stone over the passage of time. At the ground level, the buildings are shifted away from an orthogonal relationship to create definition for the courtyard entrances and develop more space within the courtyard areas for social interactions.

Sun

Passive strategies based on interaction with the sun became the main focus of the environmental design. This seemed more appropriate and fitting for the agrarian context of Ware in light of David Orr's analysis of different sustainability strategies, discussed above, than a higher-technology smart building approach, which would be potentially foreign to the town residents. The interplay between sun and building served to organize building distribution on the site, motivated the form of the circulation and fenestration systems, and was the primary inspiration for the architectonic strategy of using a second-skin façade system.

One of the challenges for designing with the sun at 2 East Main Street is the fact that the site is oriented due north, and is much longer on the north-south axis than the

east-west axis. Therefore, orienting buildings based on the site proportions required giving up good solar access for both roofs and units. Rather than use that guidance, I organized the program into several well-oriented buildings and connected them with elevated walkways.

Beginning with buildings that were oriented on an east-west axis, I shifted them side-to-side, allowing them to slip past each other and develop courtyards that were actively bounded by three buildings. This also maintained penetration of sunlight on the site to even the northern-most building. By creating a gradient of building heights, from a single story at the south increasing to five stories at the north, the buildings related in a dynamic way without casting too much shade on one another. This also allowed for rooftop gardens that were actively available from floors at the same level in other buildings.

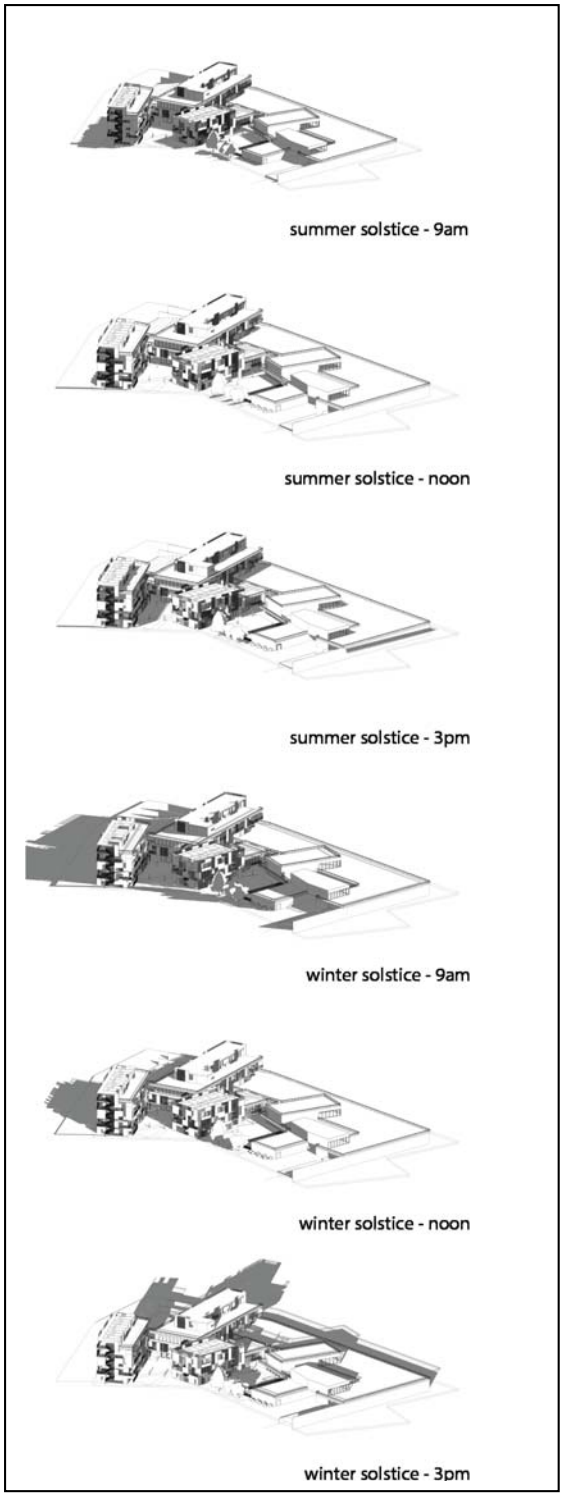


Figure 34: Sun study at 9 AM, 12 PM, and 3 PM on summer and winter solstices

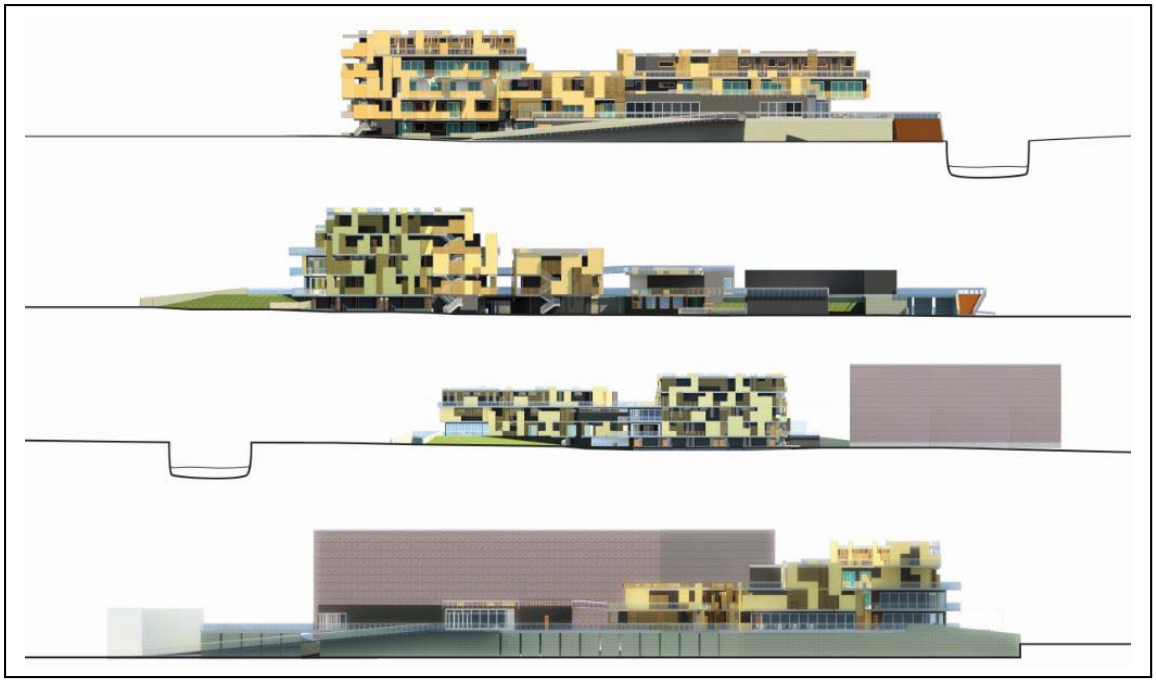


Figure 35: Elevations showing façade system

The elevated, semi-enclosed walkways that connect the individual buildings offer a variety of benefits, including centralized accessible circulation that reaches all of the residences. The walkways run north-south connecting the buildings, and wrap to the north side for access to individual apartments. With the exception of the studios, which are accessed from a central hall, each apartment has north-facing entry and a south-facing balcony. These walkways and balconies act as a buffer to the more private interior of the individual apartment, shielding it from potentially loud interactions in the public spaces of street and riverwalk, and allowing individuals to modulate their connection to the semi-public community spaces of the courtyard and green. The overhang contributes to passive solar strategies, blocking much of the summer sun from entering the home.

The façade strategy acts in tandem with the overhangs to optimize the project's passive solar strategies. All of the buildings have a main envelope, clad in a dark-stained wood. Sitting outside of that envelope, at the outer edge of the walkways, the upper

residences have a second skin façade. Composed from the same wood, but left bright and warm with a natural stain, the light and privacy of the residences are modulated by a series of panels: vertical louvers, horizontal louvers, solid wood siding, or void. Each panel type offers a different effect, preventing glare from the east and west, blocking hot summer sun, creating privacy, and offering free passage of light and air.

The façade works closely in connection with the fenestration of the residences. While the public and community spaces have large areas of glass connecting them directly to the promenade or the walkways, the residences require a more modulated approach. The south-facing living spaces have large glass doors, providing for the most solar gain during the winter and allowing the living space to spill directly out onto the balconies. Bedrooms on both the north and south present a more modulated approach to fenestration, providing egress and ventilation, but focusing on higher windows that maintain privacy while also offering light.

This skin offers environmental benefits, but also contributes benefits to a number of social factors. The variable skin offers a sense of individuality and identity for the residences, something that is often lost in large apartment communities. The walkways create a semi-private moment, where the approach to a private apartment is separated from the entire community, but offers the potential of a spontaneous conversation between that floor’s neighbors. Wood is a plentiful local resource, making it the ideal material for a new aesthetic consideration within the context of Ware's historic brick mills.

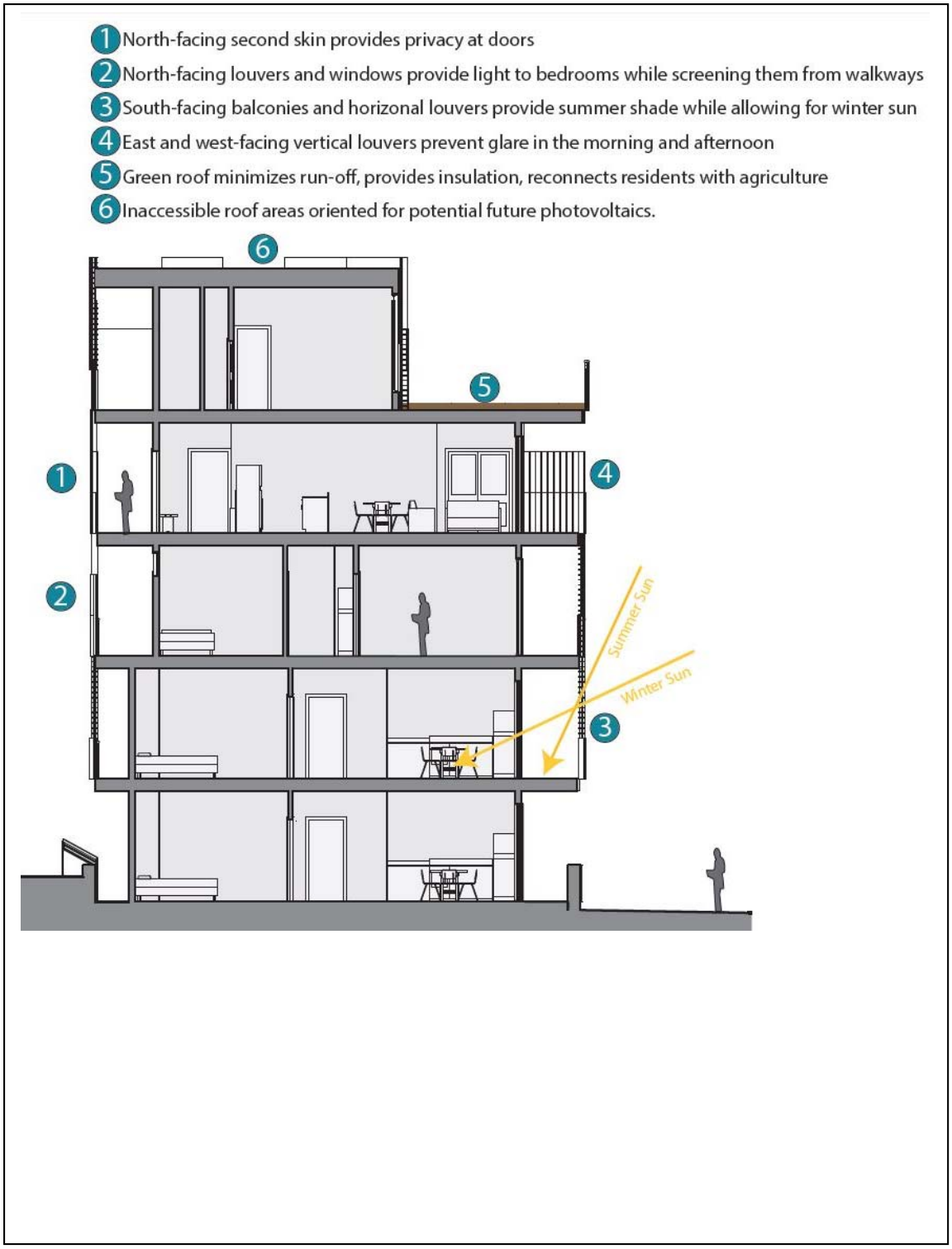


Figure 36: Passive solar strategies within the project

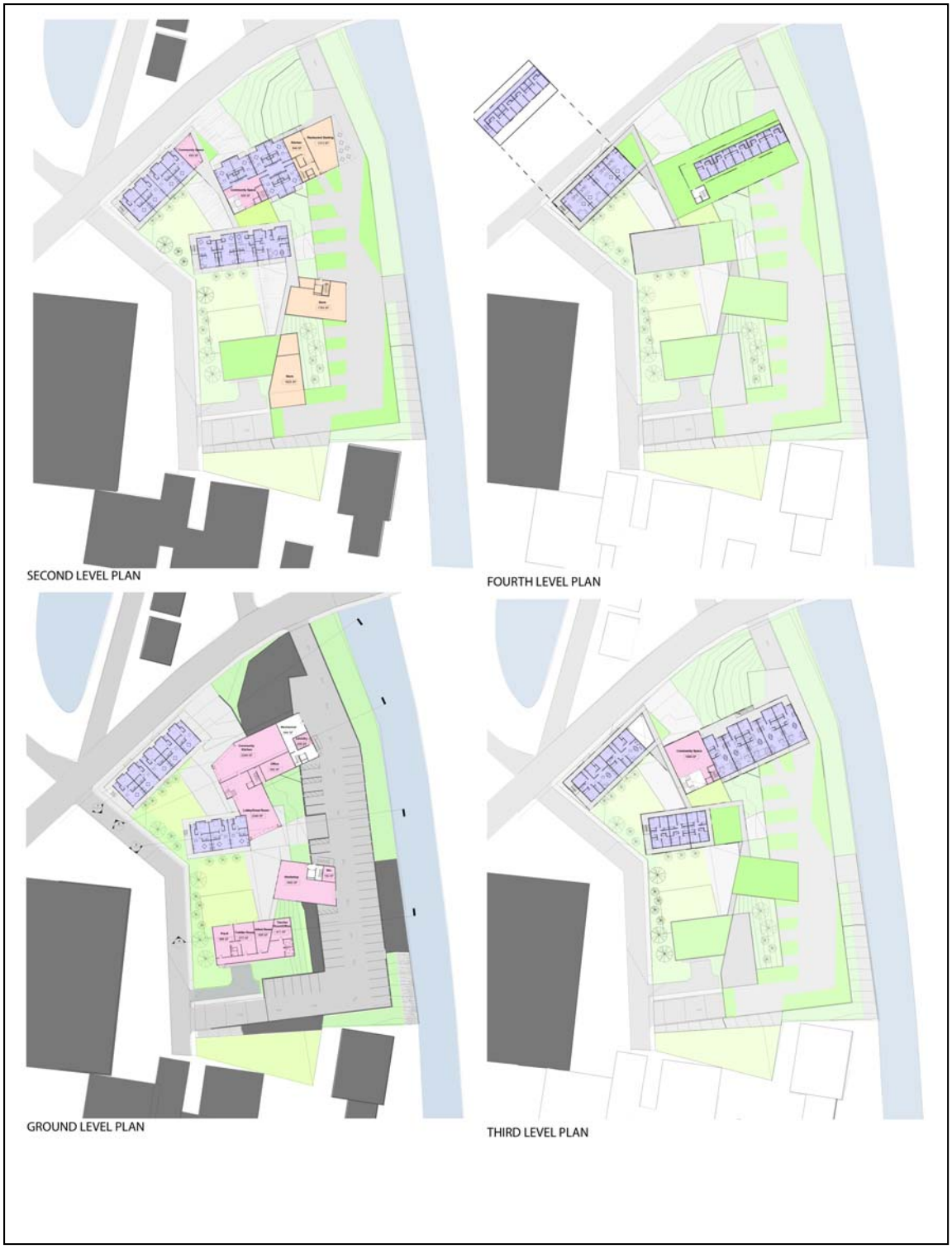


Figure 37: Floor plans

Design Execution

The ground floor level offers access to parking for the whole complex, but otherwise the building's first floor is predominantly focused on community spaces; the daycare, workshop, great room, kitchen, and common amenities are all located on that floor. The rest of the floor holds many of the senior apartments, making them accessible without any use of elevator or stairs. The second floor is the boardwalk level, splitting it between a public and private face. The public side contains a restaurant and two shops, as well as a large promenade with spaces for short-term vending and weekly farmers' market stalls. This level can be accessed on foot or bike via three sloped paths, or by a stair and elevator core from the covered parking. The private side of the second floor plan contains additional apartments – work-exchange flats, senior apartments and family units. In addition, two community spaces connect the units to each other and to the walkways. This level also contains the first of the roof gardens, spaces that reconnect downtown with the agricultural heritage of Ware. These edible landscapes are located throughout the site, with more public garden spaces along the boardwalk, and private community garden plots that could be farmed collectively or individually located on many of the roofs.

The third through fifth floors develop more rooftop garden spaces and family housing. Some of the units are flats, but most have interior stairs to a second floor, allowing for units with more bedrooms to fit on a smaller building footprint and creating additional forms of egress from the living spaces. The community spaces continue to the third floor, creating multi-story connections within a single building, linking community members who might not otherwise see each other as often.

The residential spaces vary from 421 square feet to 1162 square feet of indoor space, including fifteen senior one-bedroom flats, six work-exchange studio flats, and fifteen two- to four-bedroom family apartments. All apartments are designed to be universally visitable, and all senior and work-exchange apartments are handicap accessible. The centralized elevator core's connection to all three residential buildings offers a point of easy circulation for families and seniors alike, bringing everyone together while also maintaining affordability of the project. The north sides of the units are shaped to create private entry spaces that step back from the walkway, while windows at north-facing bedrooms provide light without giving direct views of the beds.

Due to the social nature of the project goals, it was critical to consider the execution of the design not only from a more typical programmatic adjacency strategy, but also from a more narrative perspective. The project centers itself around the individuals populating this new community, and therefore the experience of living within

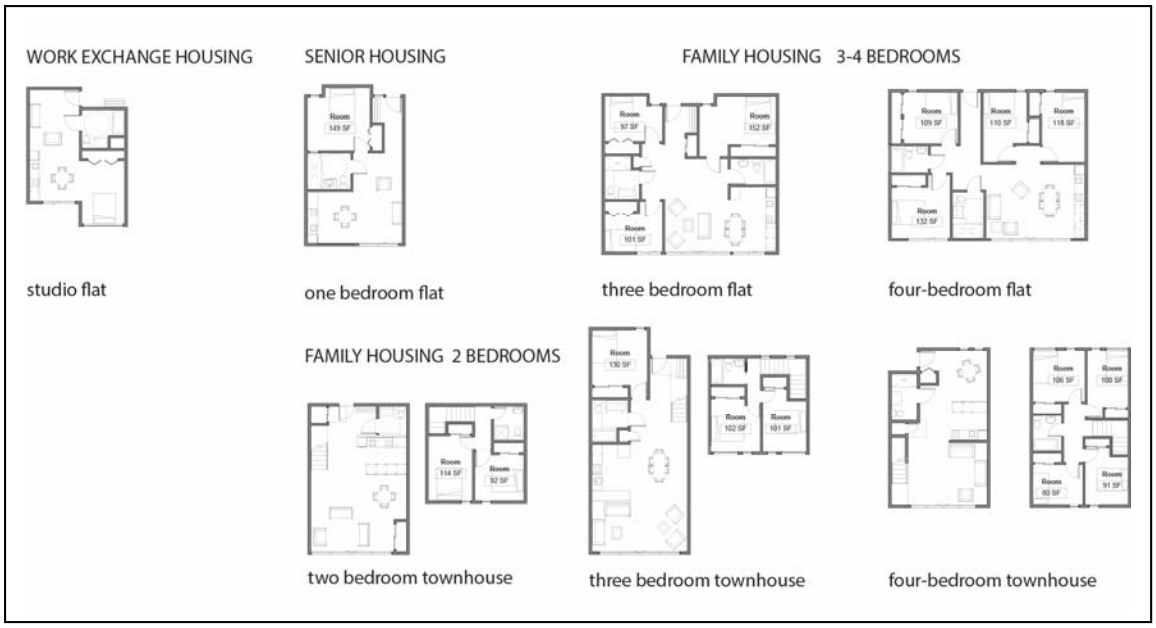


Figure 38: Residential units

that community is a key design feature. Circulation within and usage of the program may vary significantly depending on the user – whether it is a local farmer using the commercial kitchen to preserve goods, selling produce at the farmers' market, and teaching the residents about agriculture in the rooftop gardens; an individual who works nearby who comes to enjoy the boardwalk and eat in the restaurant; a retiree who spends time with his neighbor's children in the afternoons; or a single mother who drops off her children at the daycare before heading to work.

Figure 39: Narrative circulation diagram

Landscape

The interplay between indoor and outdoor spaces ties together the various potentially disparate aspects of the program, making the treatment of outdoor spaces an important consideration for the holistic understanding of the building. While the level of landscape articulation is not as high as it would be in a fully developed project involving a landscape architect, several strategies are outlined.

The first category of landscape treatments is that of self-sufficient, native plantings. These plants are typical of something you might find in a rain garden or growing wild in any damp environment throughout the area, and mirror some of the existing plant life that is currently overgrowing the vacant lot. They are species that "don't mind getting their feet wet", doing well in a variety of moisture levels and tolerating flooding when necessary; examples of this category include columbine, cardinal flower, beebalm, big bluestem, switchgrass, and witchazel. These plants are located in the low points of the site, on slopes, and next to the river. They serve to stabilize the soil, slow runoff to

Figure 40: Native plants locations and three plants – switchgrass, columbine, and witchazel

Figure 41: Top: Hardscape locations and bench inspiration

Edible landscape locations and three plants – blueberry, maple, grape

allow for soil absorption, and provide habitat for native species of bird and butterfly. Certain species also have the potential to remediate the soil and filter out pollutants contained in rainwater runoff from the street before they enter the groundwater or the river.

The second category is characterized by the term ‘hardscape’: pavement or other areas where hard surfaces have been put down. These surfaces provide smooth circulation throughout the community and are critical to the universal access desired for the boardwalk and community outdoor spaces. The main hardscape areas are major entry points to the site, sloping down from the street to a ground floor patio off of the community kitchen, and providing a wide, casual path along the boardwalk. As key circulation points, seating and lighting are integrated into a site-wide system, rather than being distinct based on location or program.

The third category of landscape treatment is the creation of edible landscapes.

The goal of reconnecting with agriculture in the downtown was one of the key drivers of this project, so the areas of the site devoted to gardening are one of the most important landscape elements. Various raised plots are located along the boardwalk, which give the public a clear and close-up connection to the site's agricultural mission. The roof gardens would also provide opportunities for individual and communal food production.

In addition to the gardens, the edible landscape treatments act as a buffer between the public and private elements of the site, creating enclosed, secure-feeling boundaries. Fruit and maple trees planted along the edge of the access road and to the south of the first floor apartments provide shade as well as food, while hardy perennial shrubs such as blueberry and elderberry bushes enclose the playground from the public eye, sheltering it. Trellises on the outside of the garage wall would grow fruit-bearing vines such as grapes and ground nuts, providing screening while still allowing light to filter into the garage.

The final category of landscape treatment within the site is the locations that function as outdoor rooms. These are the eddy points, shaped by the buildings' "rocks" that guide the community for moments of spontaneous social interaction. These spaces are larger and more sparsely populated, allowing for a varied set of conditions, including different moments of group and private space with a variety of sunlight and shadow.

Figure 42: Outdoor room locations, inspiration images

Figure 43: Renderings of the site on approach and on the boardwalk facing south.

Figure 44: Renderings of an outdoor room and one of the semi-enclosed walkways.

Figure 45: Renderings of a roof garden and one of the community spaces

CHAPTER 7

CONCLUSION

This project examines the ways in which a mixed-use development can foster a symbiotic interconnection between a wide spectrum of Ware residents. In reconnecting different groups within the town, it offers a new way of moving forward for the town as a whole while filling in some of the gaps that currently exist in active public space, quality affordable housing, and community interaction.

It examines new options for connecting home, work, and community that are reflective of the needs and assets within Ware. The needs of certain groups are met by abilities of others, abilities that are currently unappreciated and underutilized. The creation of new public space aims to reconnect residents with the town's natural heritage of water and land, represented here by the riverwalk and the community gardens. At the same time, the economic spaces nurture new connections with downtown as a space of activity and interest.

At its core, the project is aimed at developing a framework for reconsidering the plight of struggling rural towns. Achieving this goal required a new way of considering the opportunities already available within the Ware community, and developing creative options for bringing them together. It does not offer all the answers, as no single project can. However, it proposes a first step for a process that is able to bring Ware into a more holistic, vibrant, and sustainable future.

APPENDIX A

FINAL REVIEW BOARDS

The following seven images are the final thesis presentation boards that were presented on April 4, 2014. Actual Size of each board is 36" x 60"

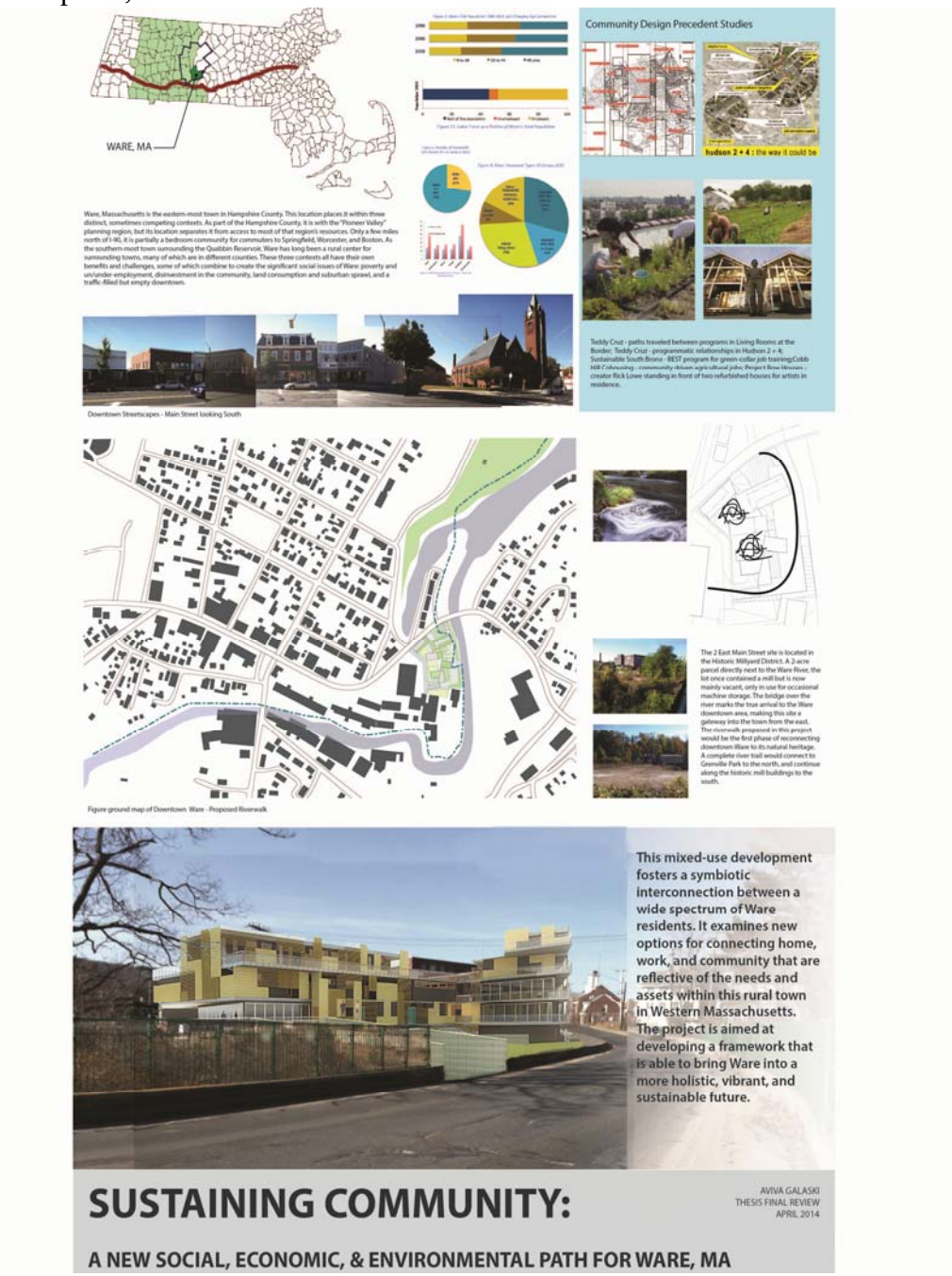


Figure 46: Board 1

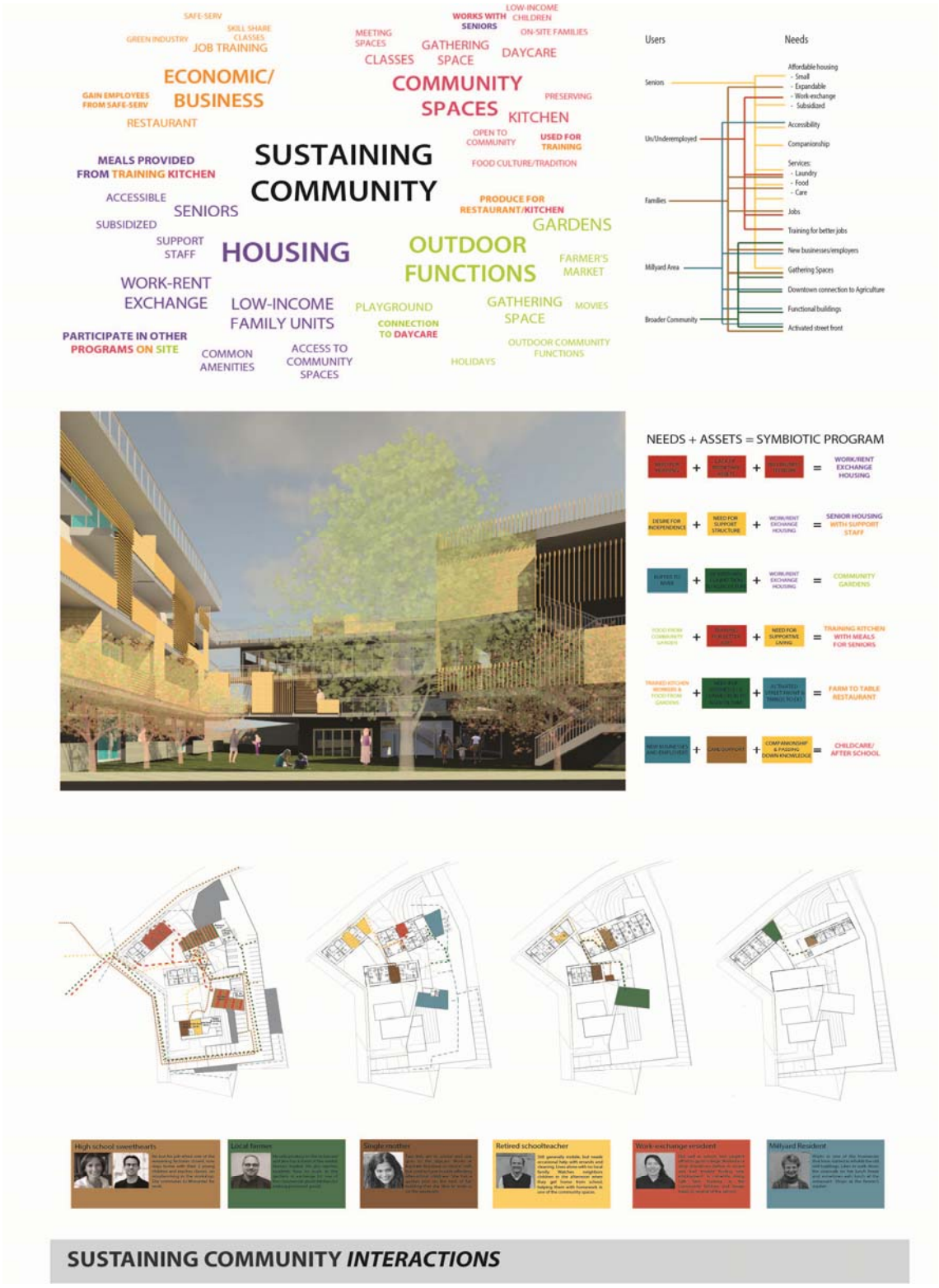


Figure 47: Board 2

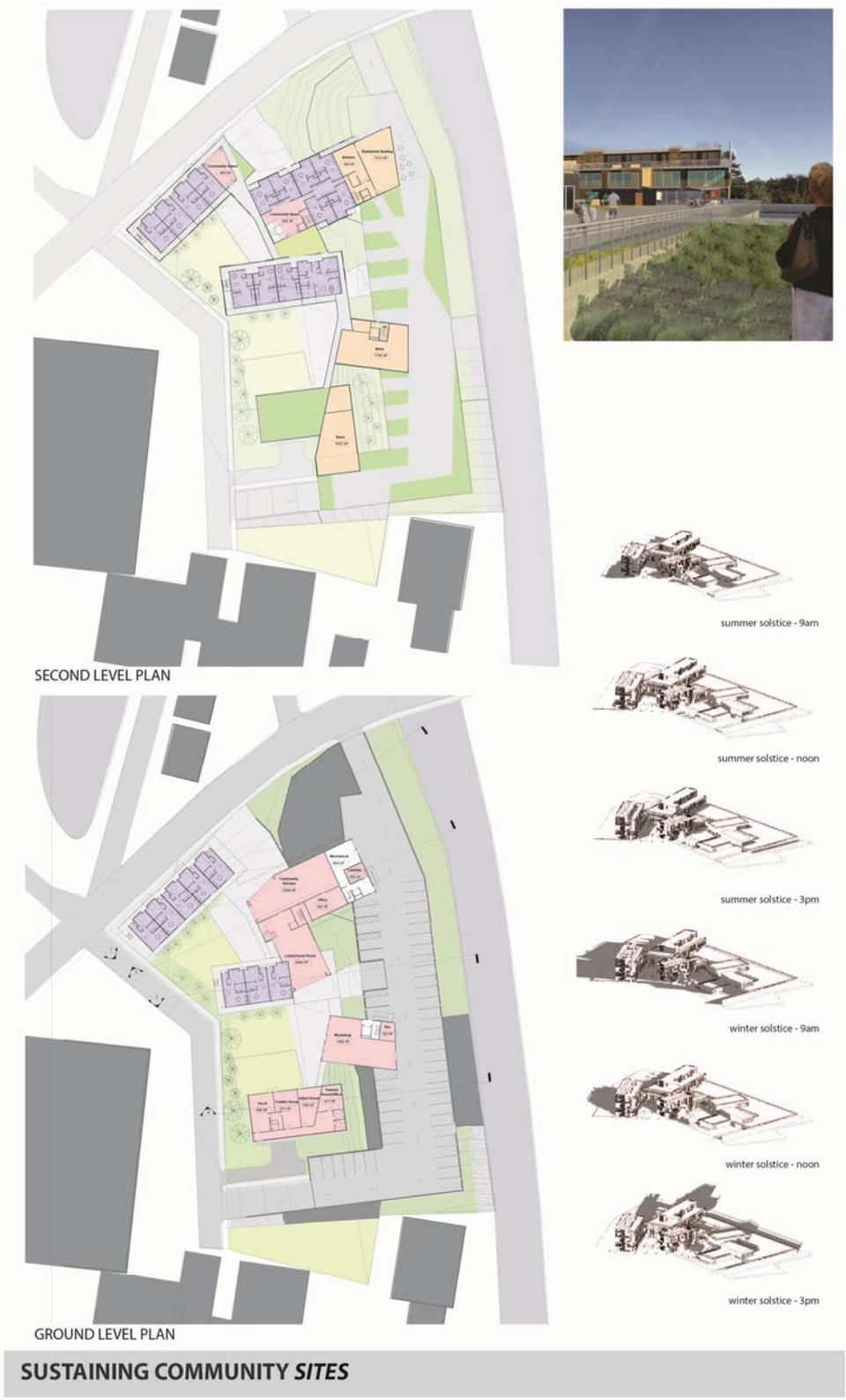


Figure 48: Board 3

Figure 49: Board 4

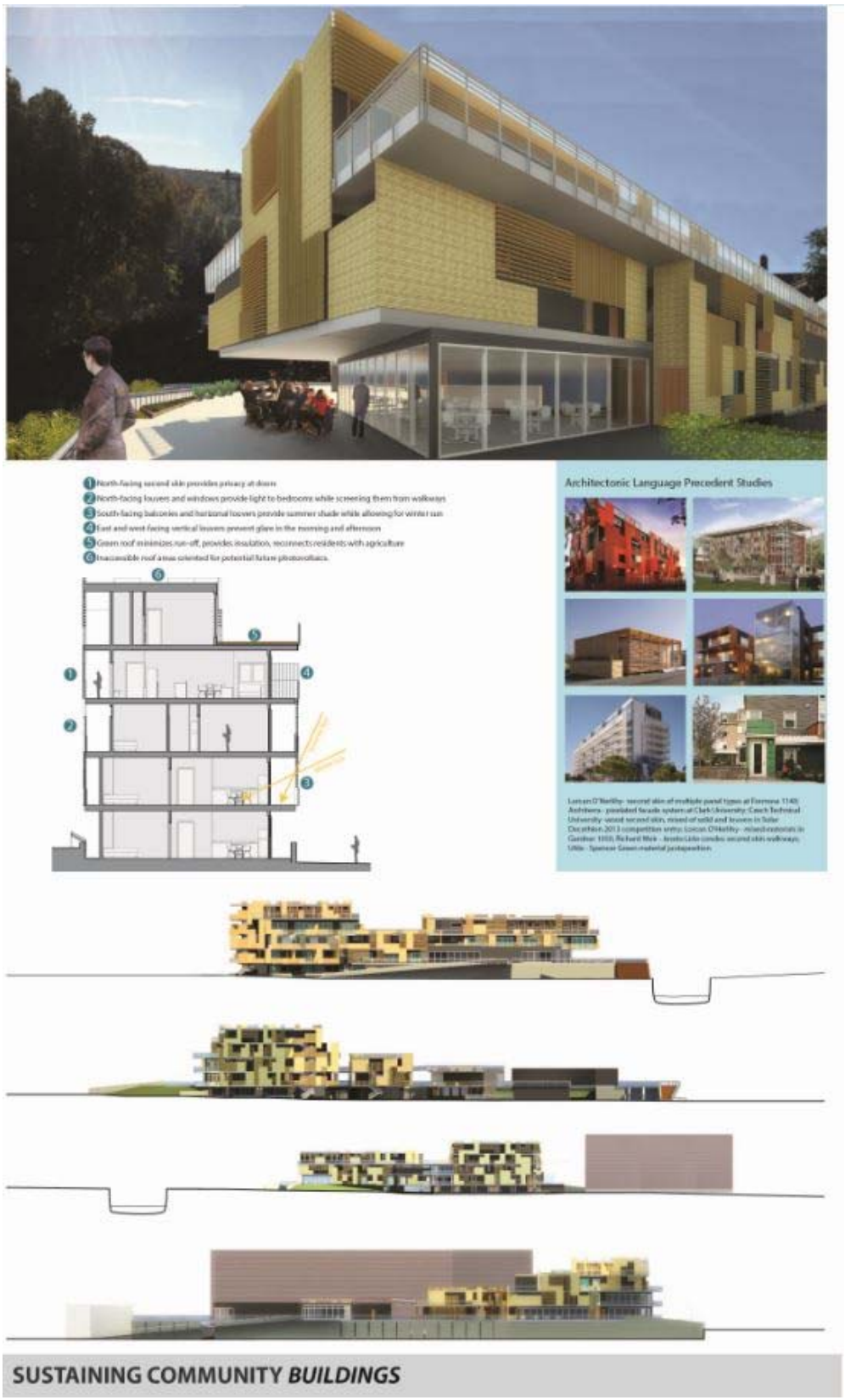


Figure 50: Board 5

Figure 51: Board 6

Figure 52: Board 7

APPENDIX B
MODELS

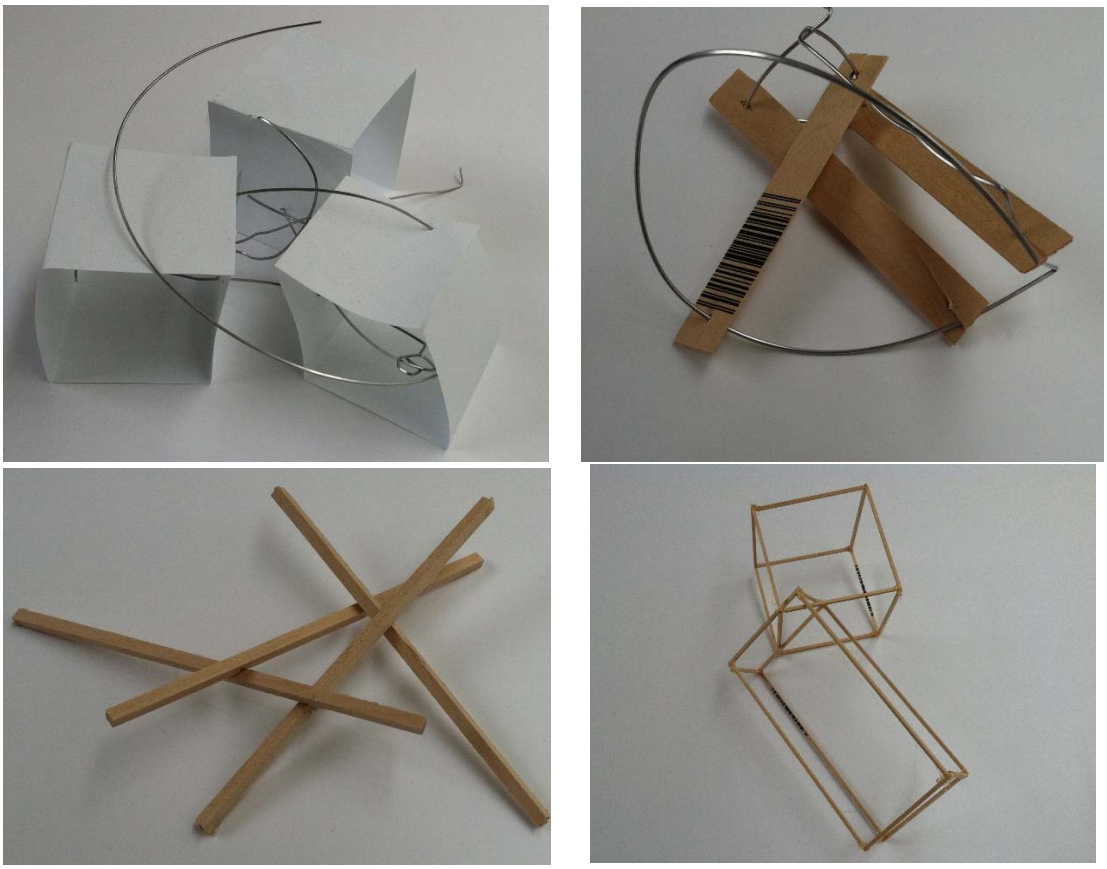


Figure 53: Initial Concept Models

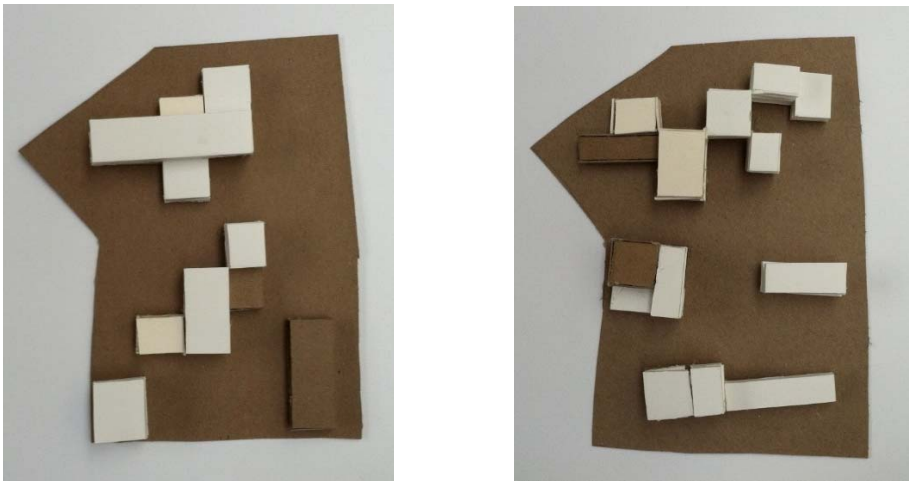


Figure 54: Early study models examining diverse program interactions

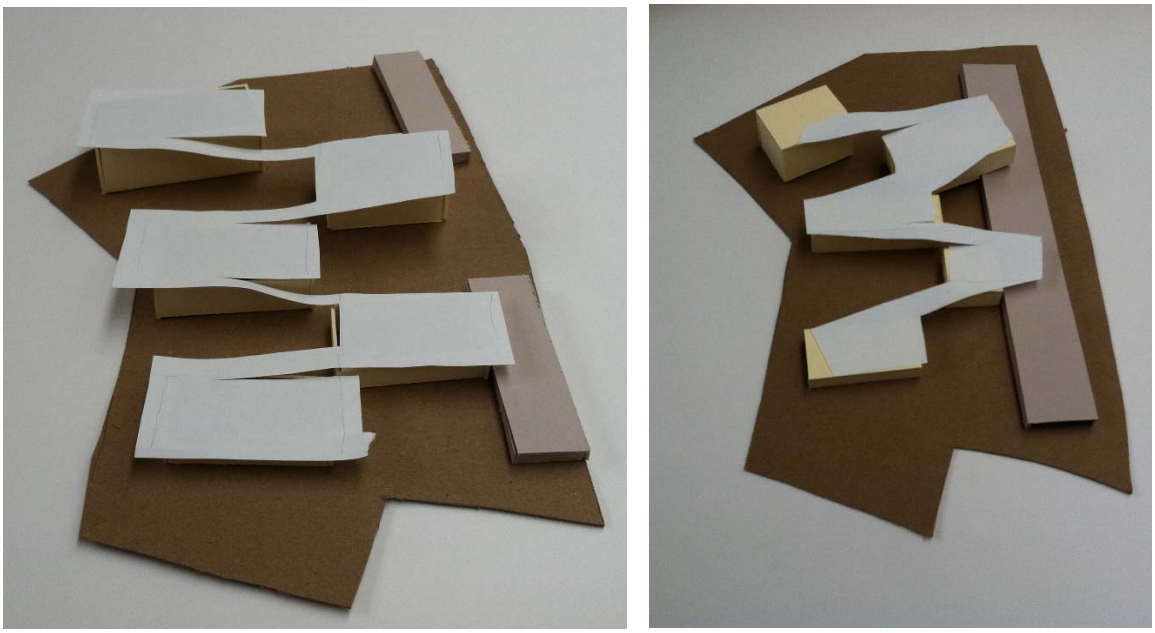


Figure 55: Emerging massing

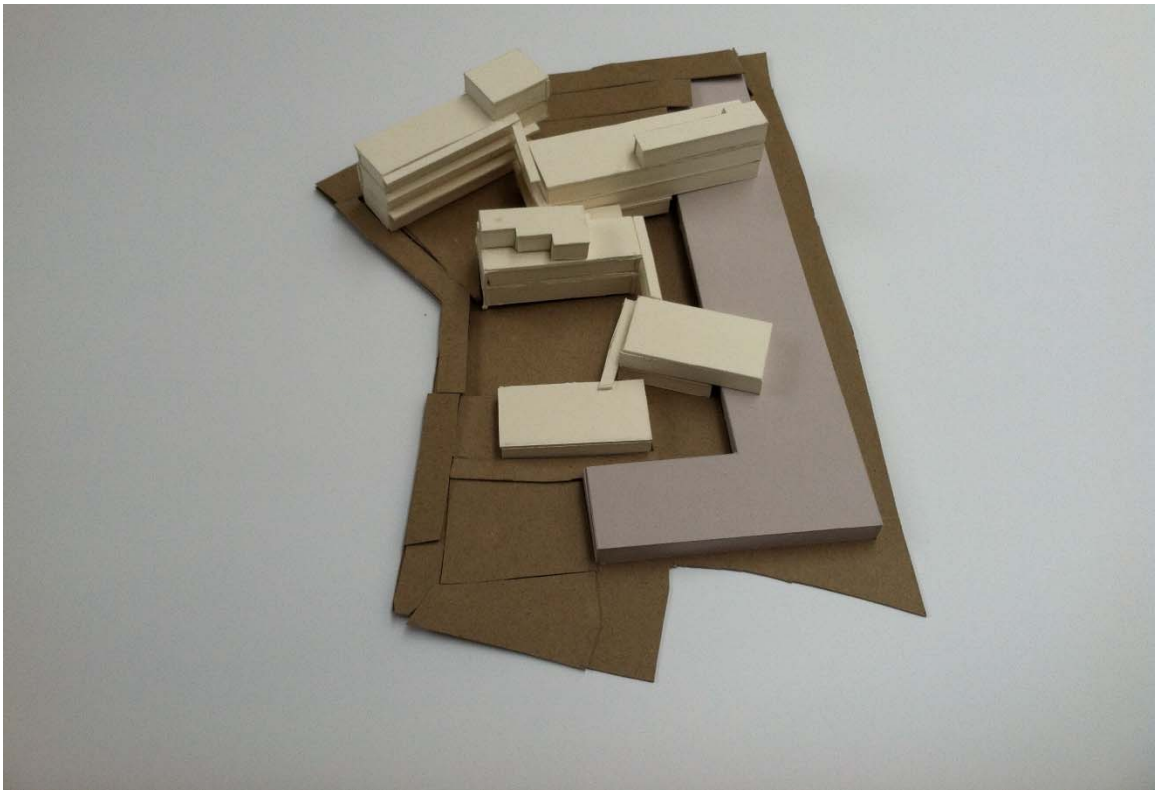


Figure 56: Detailed massing

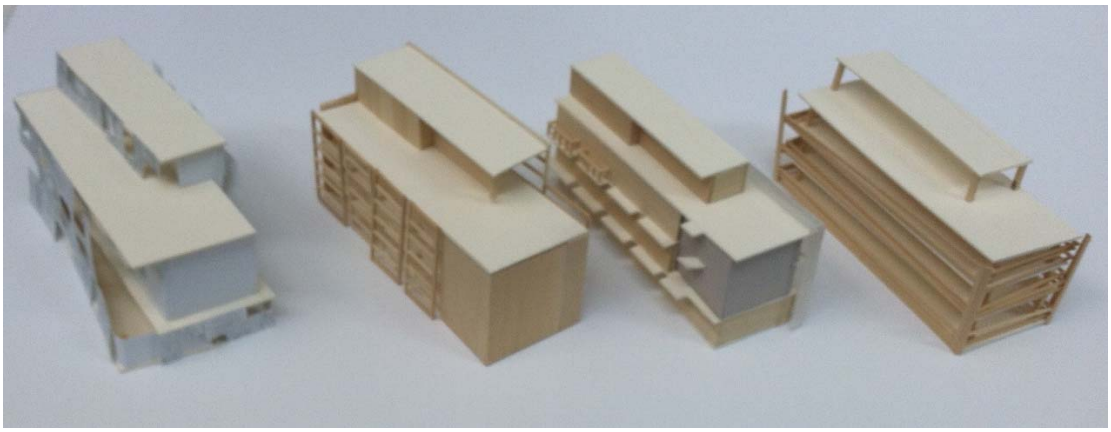
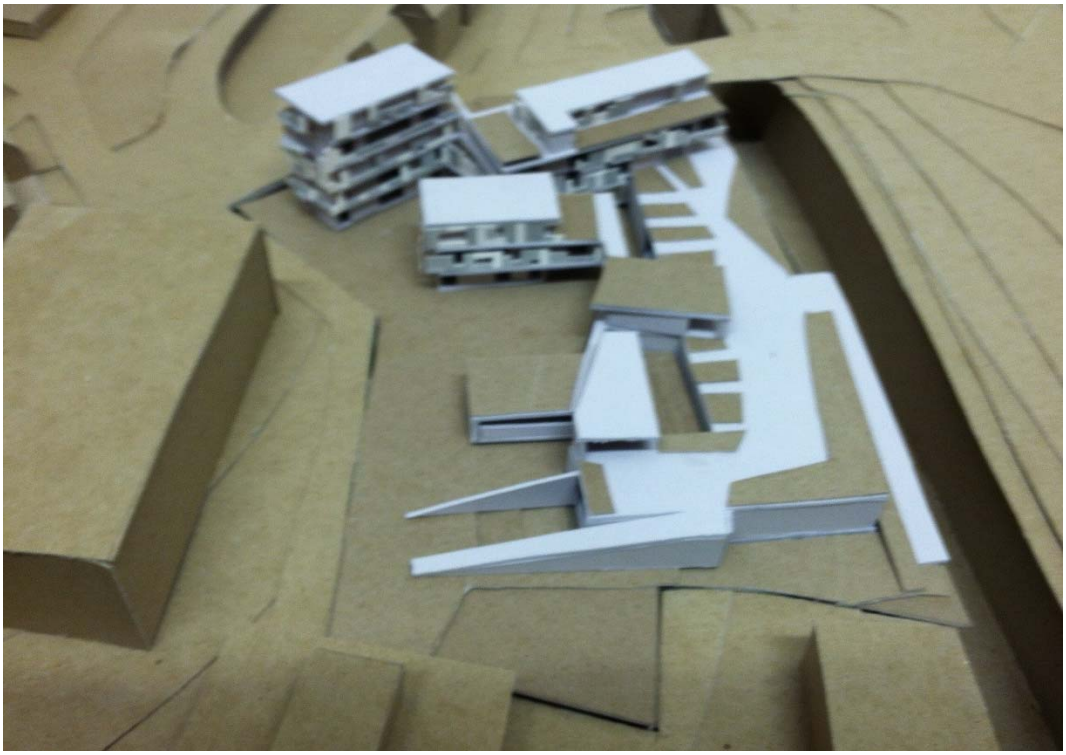


Figure 57: Architectonic language study

Figure 58: Detailed architectonic language within project



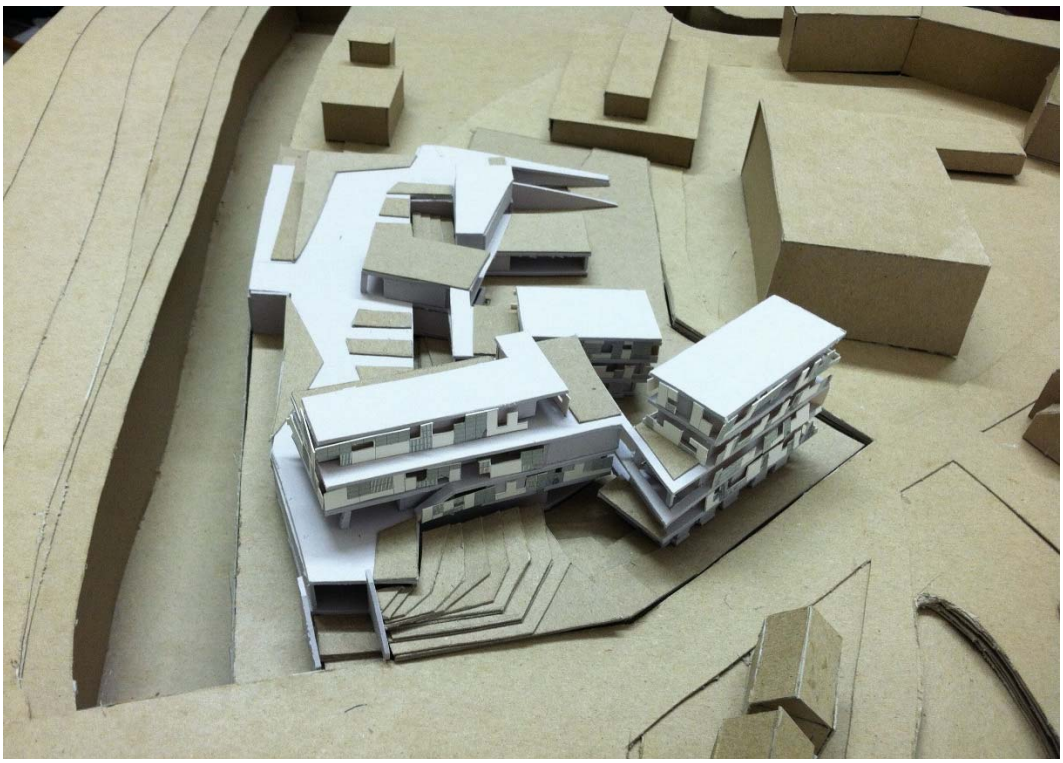
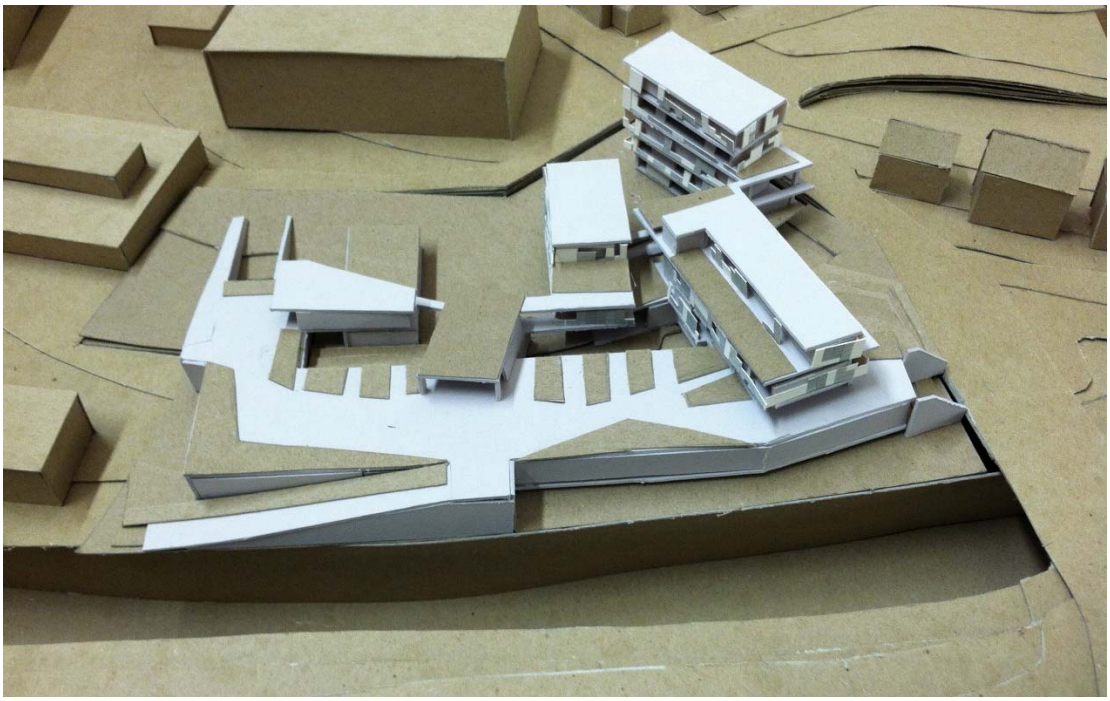


Figure 59: Final model



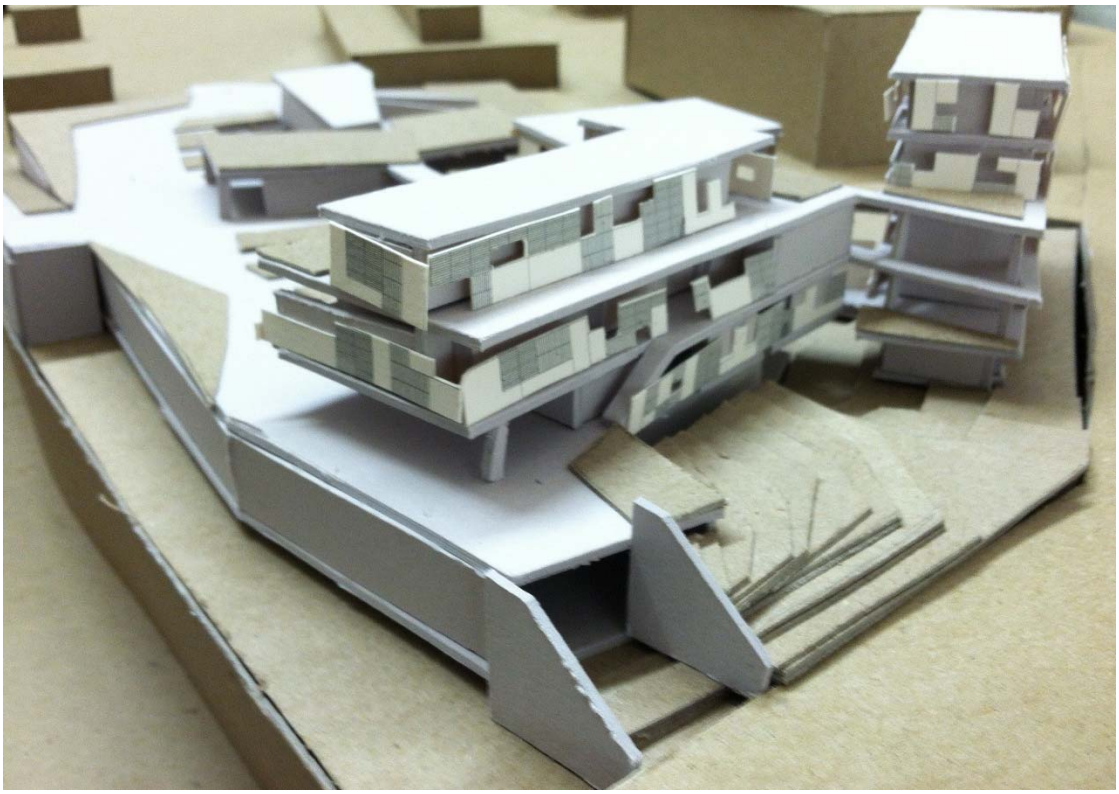


Figure 60: Final model – additional views

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