

The focus of this literature review encompasses the relationship between inter-generational interaction and its impact on improving human health and well-being. With an increasing older population in today's society, there is a need for the reinterpretation of modern day multi-family housing, with an emphasis on aging in place. In the United States the population of adults aged 65 and over is swiftly increasing; it is expected to rise from 35 million in 2000 to 72 million in 2030. (U.S. Census Bureau, 2005) Sadly, younger generations often portray their elders as insignificant, damaging, dependent and detrimental to society. (Bales, 2000) However, in the past 30 years, numerous studies by means of varying methods have exposed improvement in the attitudes toward older people among younger adults and children after participating in an inter-generational program. (Lynott & Merola, 2007) Research has shown that participants not only feel intrapersonal development through service based learning, but the establishment of a deep relationship with their partners. (Zuccherro, 2011) The proposed project will examine the ways in which “thinking” and “making” by means of a service based learning model might contribute to a healthy lifestyle across multiple generations. This study will explore ways to integrate “making” spaces into an inter-generational living environment. An inter-generational housing community where crafts people, artisans, makers, inventors tradespeople, retirees, and students of all ages can nurture mutual understanding, share ideas and distribute knowledge through the physical experience of making things.



# landon hubbard

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living + making = a purposeful life

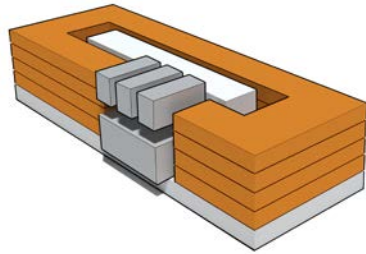




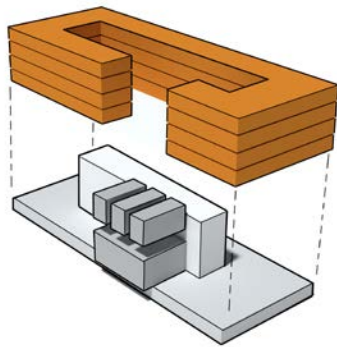
“The emotional rewards craftsmanship holds out for attaining skill are twofold: people are anchored in tangible reality and they can take pride in their work. But society has stood in the way of these rewards in the past and continues to do so today. At different moments in Western history practical activity has been demeaned, divorced from supposedly higher pursuits. Technical skill has been removed from imagination, tangible reality doubted by religion, pride in one’s work treated as luxury. If the craftsman is special because he or she is an engaged human being, still the craftsman’s aspirations and trials hold up a mirror to these larger issues past and present.”

-Richard Sennet





Make | Live | Showcase



Make | Live | Showcase



## Introduction:

In today's society we can no longer hide from the fact that our aging population is rapidly increasing. In the United States the population of adults aged 65 and over is swiftly climbing; it is expected to rise from 35 million in 2000 to 72 million in 2030. (U.S. Census Bureau, 2005). By the year 2015, individuals aged 50 years and older will account for 45% of the U.S. population. (Frey, 2010) With this drastic shift in the population, many concerns in regards to housing are being raised. With this influx of elderly individuals quickly approaching retirement age, there is a dire need for reinterpretation of modern day multi-family housing, with an emphasis on aging in place. The current state of our built environment is incapable of meeting the needs associated with this demographic epidemic. Our elderly population can no longer be thrown by the wayside and funneled into the institutionalized model of care as the prevailing option for housing. Alternative living arrangements that support aging-in-place and human well-being must become the standard.

The model of an inter-generational style of living is not a new concept; however its implementation into the field of modern housing is near non-existent. An inter-generational living arrangement is quickly becoming a trend once again in our culture. (Fleck, 2010) Families are consolidating for a number of reasons, the main one being financial stability. Many younger couples desire to raise their children around their grandparents, foreseeing a better upbringing for their children while strengthening family ties. Elders aspire to maintain a sense of independence for as long as possible and the majority of retirement institutions do not provide them with this luxury. Being independent and preserving close relationships with family members is the driving force behind an inter-generational approach to living. The inter-generational living model has its cons, yet the benefits to this structured way of life and mutual support far surpass any problematic issues that may arise.



View from Occidental Park

### Healing Environments:

Throughout the human lifespan the body undergoes drastic physical and mental alterations. In the later stages of life a significant decline in motor skills, dexterity, hearing, vision, brain function and overall physical activity begin to occur. (Aldous, 2011). Many issues with aging are inevitable; however, a human being's quality

of life should not deteriorate in tandem with one's health. Unfortunately most peoples living environments do not promote aging in place and overall well-being. As designers our job is to ensure that users are given the opportunity to remain independent and active well into their later stages of the life cycle. Buildings (housing in this instance) should promote human health and well-being rather than

impeding on users ability to experience these perks to a long and happy life.

According to Wilbert M. Gesler human health and well-being is multidimensional. Human health can be broken down into five categories: physical, mental, spiritual, emotional and social. Gesler argues that human health is not limited to only a physical cure by means of medication or therapy, but it is dealt with on a much broader spectrum. The word 'heal' is derived from an Old English word 'haelon', which translates to wholeness. (Gesler, 2003) In today's society,



A Tangible Reality

nourishing these five aspects of human health can be a daunting task. Daily stresses can place a strain on all aspects of our lives and be detrimental to our health. If what Gesler argues is true, then how can the home environment become a place of healing and what actions must be taken to promote overall physical, mental, spiritual, emotional and social well-being?

Gesler's work not only explores areas of human health, but the role of healing environments in the overall welfare of a person's life. He breaks these environments down into four separate categories: natural, built, symbolic and social environments. Many societies throughout history believe that nature in itself contains healing powers. Nature's largest impact on healing is revealed in modern medicine. Without nature the drugs and antibiotics we utilize today would be non-existent. The power of nature reaches far beyond its chemical compounds and has been shown to promote health in other ways. Recent studies show that adequate views of nature within hospitals has actually reduced patients need for pain medication, lowered blood pressure and relieved stress. (Ulrich,1984)

The work of Florence Nightingale in the 1860's has proven that the man-made or built environment has an effect on the healing process. She recognized that hospital patients

recovered faster in environments that had access to fresh air, adequate light, good drainage, low patient densities and clear hygienic standards. Numerous studies have shown that the built environment affects our mood, emotions and the way we interact with one another. (Gesler) As designers it is imperative that we make a conscious effort to create spaces that promote and uphold a healthy way of life.

The symbolic environment is more abstract than the previous two environments, yet equally important to the healing process. Symbolism can be found in various places whether it be an object that evokes a certain emotion or a landscape that portrays meaning. Within the symbolic environment healing is achieved in the connection between the biophysical and sociocultural worlds. Arthur Kleinman describes this connection: "Healing occurs along a symbolic pathway of words, feelings, values, expectations, beliefs, and the like which connect events and forms with affective and physiological process."(Gesler, 2003) Whether

or not the symbolism occurs in an abstract or literal form, its duty in promoting human health is important.

The last environment involves social interaction. We are surrounded by people on a daily basis and our interactions with those individuals can affect our health. In a hospital setting, the relationship between the healer and the healed is especially important. If this relationship is unpleasant, the patient will most likely be the one to suffer. Within the social environment a new wave of healers and alternative medications has emerged, that millions of Americans are now turning to for answers to health related issues. Positive social interaction has a major responsibility in human health and it is imperative as designers that we create opportunities for progressive social interaction.

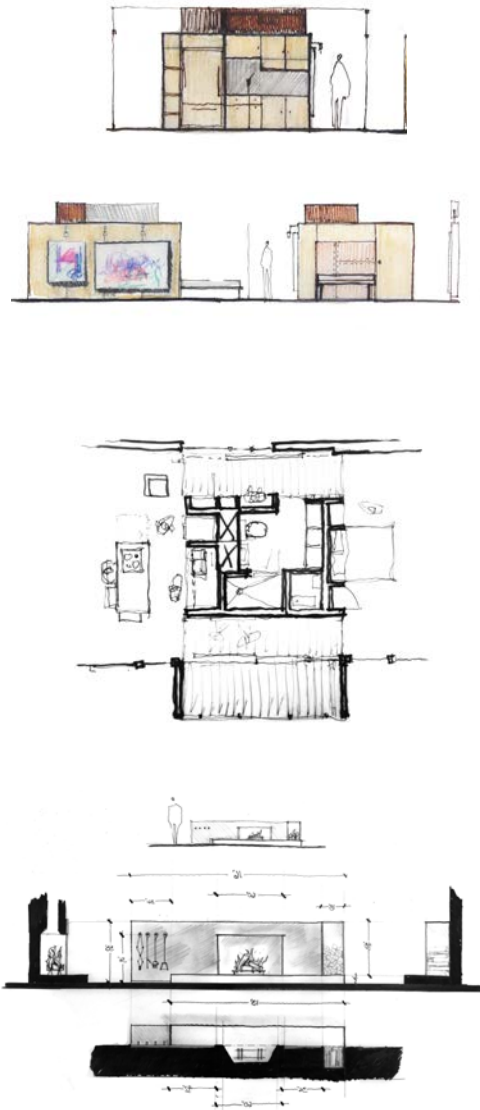


Kitchen | Living Area



Kitchen | Living Area





Unit Development

## Inter-Generational Living: Promoting a Healthy Lifestyle

How do we create housing that is tailored to multiple generations, promotes healthy living and allows users to age-in-place ensuring independence up through the end of existence? One answer to this question can be found in research relating to inter-generational learning programs.

Renee A Zucchero of the Department of Psychology at Xavier University conducted a study involving college aged students and older adults. The researcher organized a comprehensive evaluation of the students and older volunteers enrolled in an undergraduate lifespan developmental psychology course. Pre- and post-assessment evaluations were given to both the college student and older adults. The results of the study indicated that students were more knowledgeable about older adults after participating in a service based learning experience. Both parties reported intrapersonal development as in addition to the establishment of a

deep personal relationship with their partners. Students expressed their admiration for their partners and viewed them as role models by the end of the program. (Zucchero,2011) In the past 30 years, numerous studies by means of varying methods have exposed improvement in the attitudes toward older people among younger adults and children after participating in an inter-generational program. (Lynott & Merola, 2007) One of the problems with the implementation of an inter-generational housing model is finding a connection between multiple generations. Generating successful multigenerational housing involves creating a strong sense of community where users are mutually supportive of one another. Inter-generational interaction through learning can achieve this task and help foster lasting relationship. The results of these studies have served as inspiration for exploring ways to integrate “making” spaces into an inter-generational living environment. A housing community where craftspeople, artisans, makers,

inventors tradespeople, retirees, and students of all ages can nurture mutual understanding, share ideas and distribute knowledge through the physical experience of making things.

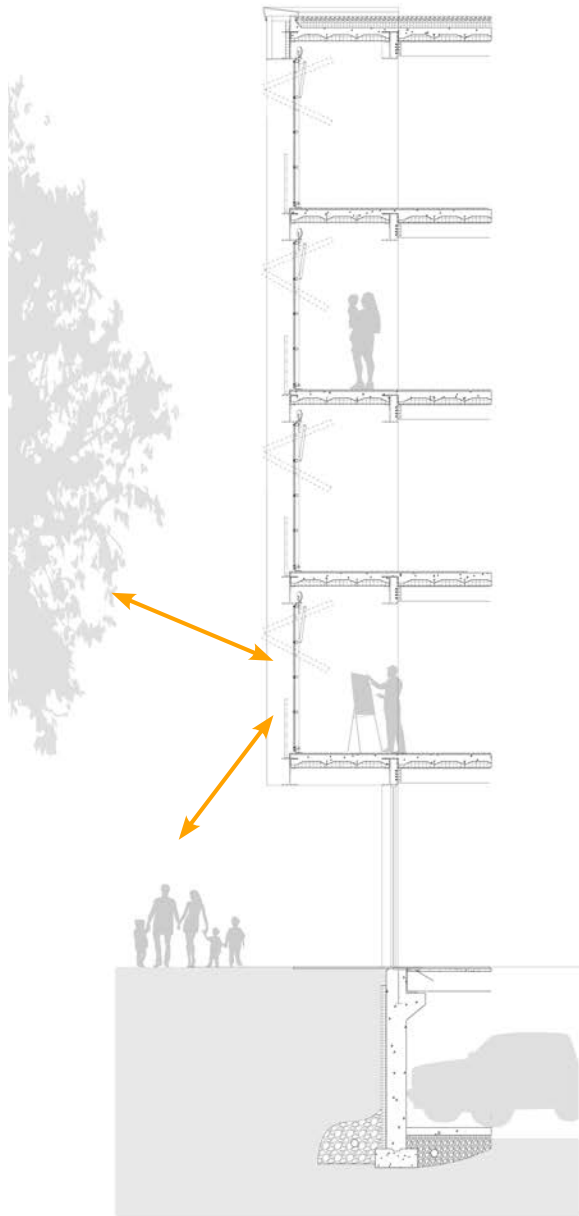
### Personal Connection:

During my second semester of graduate studies in the architectural program at Kansas State University, I was presented with the opportunity to spend a semester designing/building furniture. My objective was to reverse a mental state of alienation from my work, which was a common occurrence in my previous three years of study. At the time, I had no idea that the act of learning through hands-on experience would have such a profound impact on my life. I now firmly believe that genuine understanding is a direct result of confrontations with real things. Throughout the semester I worked alongside a good friend while under the direction of a professor who became a mentor in both our lives. This particular professor was over twice our age; however our shared interest



Personal Connection: Learning to Weld

in furniture and hands-on learning allowed us all to stand on common ground. The experience of working together allowed us to bridge a generational gap and foster a durable relationship. This semester not only impacted the way I approach design, but became the premise for this thesis. I sincerely believe the act of ‘making’ can bridge generational gaps and generate healthy, long-lasting relationships.



This architectural investigation is aimed at answering two questions:

*\_How can the act of making contribute to a cohesive/healthy living environment across multiple generation*

*\_How can the architectural proposal reinforce the idea that living + making = a purposeful life?*

### History:

The implications of incorporating making spaces into housing reach far beyond simply creating moments of social interaction. During medieval times craft houses were utilized as a way of transferring knowledge from generation to generation. In today's tech savvy society, the act of making is become less and less hands on. The trades of the past are becoming irrelevant and our world is moving toward a reality placed within the realm of total abstraction. Why then would it be important to transfer knowledge from older to younger

generations and vice versa? In his book, *The Craftsman*, Richard Sennet argues that individuals involved in the act of making are more strongly connected to the world around them: "People are anchored in tangible reality and they can take pride in their work. But society has stood in the way of these rewards in the past and continues to do so today. At different moments in Western history practical activity has been demeaned, divorced from supposedly higher pursuits. Technical skill has been removed from imagination, tangible reality doubted by religion, pride in one's work treated as a luxury. If the craftsman is special because he or she is an engaged human being, still the craftsman's aspirations and trials hold up a mirror to larger social issues past and present."(Sennet,2008) Historically the workshop was the craftsman's home in a literal sense. During the Middle Ages, craftsman ate, slept, and raised their children in the places where they worked. These workshops were small in scale usually housing a few dozen people. A group of philosophers,

Karl Marx, Charles Fourier, and Claude Saint-Simon all viewed the workshop as a place for human labor. This environment mixed home life and a place of labor in a face-to-face atmosphere. Why couldn't this model of living be re-implemented into a modern society where a cross-pollination of ideas and knowledge is transferred between multiple generations? In recent years a troubled economy has forced individuals to become more informed and connected to the objects we purchase in order to survive. This trend can be seen in everyday life whether through growing food at home or even the act of making one's own garments. Frugality requires a certain level of self-reliance and ability to take care of one's belongings. This notion of becoming autonomous and independent in hard economic times seems to answer a deeper need: We want to feel a deeper connection to the world in which we live, an intelligible responsibility to our surroundings. Many individuals are trying to recover a field of vision that is relatively human in



Maker Sectors: Private Artist Studios | Outdoor Patio | Ceramic Studio | Reception

scale, and extricate themselves from obscure and abstract forces of a global economy. (Crawford,2009)

During the early 1990's schools all across the country began to shut down their shop class programs and encourage a big push towards computer literacy.

In a blog post entitled, Wisdom of the Hands, Doug Stowe writes: "In Schools we create artificial learning environments for our children that they know to be contrived and undeserving of their full attention and engagement. . .Without the opportunity to learn through the hands, the world remains abstract, and distant, and the passions for learning will not be engaged." In my own educational career I have struggled with the ways in which information has been presented to

me. A desire to learn through the physical act of “doing” by my own accord has led me to believe that genuine understanding is a direct result from confrontations with real things. Simply reading a text or learning through various means of abstraction will no longer suffice if I truly want to find expertise in a certain area of interest. So why then are these practices of hands-on learning tossed aside in American education and what value can we associate with reincorporating these methods of learning into the educational system? In recent decades shop class has become an easy target for eradication. Not only are shop classes expensive to maintain, but they are also dangerous. A multitude of students cannot be shoved into a shop environment as easily as a PE class. On the other hand our society has molded the educational system to pump out mass amounts of “knowledge workers,” devaluing the trade occupations as a lower social status. This separation of “thinking” from “doing” in the educational structure is only leading us further down the road of an abstract reality. There are certain psychic benefits inherent in the act of making and manual labor. “The man who works recognizes his own product in the world that has actually been transformed by his work: he recognizes himself in it, he sees in it his own human reality, in it he discovers and reveals to others the objective reality of his humanity, of the originally abstract and purely subjective idea he has of himself.”(Kojeve, 1989)

In the concluding remarks of *The Craftsman*, Sennet explains the benefits of craftsmanship

and making physical objects, “. . .the craft of making physical things provides insight into the techniques of experience that can shape our dealings with others. Both the difficulties and the possibilities of making things well apply to making human relationships. Material challenges like working with resistance or managing ambiguity are instructive in understanding the resistances people harbor to one another or the uncertain boundaries between people. I’ve stressed the positive, open role routine and practicing play in the work of crafting physical

things; so, too, do people need to practice their relations with one another, learn the skills of anticipation and revisions in order to improve these relations.”

### Living + Making

In this project ‘making’ is important in creating social sustainability within an inter-generational living environment. This particular focus should not be thought of as an exclusive means to an end, rather a possible solution in linking





Longitudinal Section: Ground Floor Workshops | Units | Showcase Spaces

multiple generations to creating lasting relationships and promote a healthy living situation. Linking living and making spaces together can help foster lasting relationships while becoming a catalyst for knowledge transfer. Bringing users together through a shared experience (making) allows individuals to stand on common ground and learn from each other. This particular project is programmatically tailored to a specific user group, as a way of creating a cohesive living environment for inhabitants with similar interests.

An inter-generational model must go beyond simply providing living space for various generations. If these different age groups live behind closed doors with no social interaction the inter-generational model could easily be rendered a lost cause. Providing spaces for social interaction through the act of making together delivers users with

the opportunity to foster lasting relationships with neighbors of different age groups. From Richard Sennett's book, *The Craftsman*, we learn that the act of making reaches far beyond the crafting of objects, but into the realm of human relationships. 'Making' in this case becomes the link that brings different generational groups together. Gesler's research reveals that day-to-day human interactions have a direct effect on human health. Designing spaces that promote healthy human interaction is key to the multigenerational model.

The design for this inter-generational housing

complex takes existing concepts from other housing models and reincorporates them into a new model that suits this specific user group. The main focus of this design is to create a direct connection between units and making spaces. Units look onto exterior spaces as well as interior making spaces. Inter-generational units are adaptable and can be modified for the addition of a care taker or elderly family. Universal design is implemented into each apartment ensuring ease of use for later stages of life. Each apartment is designed with a studio space, providing users with the opportunity to be creative within their specific unit. All apartments within the housing complex are single story dwellings enabling users to age-in-place and not have to modify their space as mobility decreases later in life.

The building functions as three separate programmatic entities within the same site. Living, making, and showcasing spaces are connected visually and through circulation. This forces users to intermingle with each other on a daily basis further creating opportunities for social interaction. With the addition of ‘maker’ spaces into the building a collective community that is mutually supportive of each other is born.

Positive social interaction has a major responsibility in human health and it is imperative as designers that we create opportunities for progressive social interaction. The integration of ‘maker spaces’ into inter-generational living is one avenue for conquering this task by forming a housing complex that binds people together as skills, knowledge, and experiences are shared; a true model of socially sustainable living.



Closed Studio Space



Open Studio Space



Phase 1



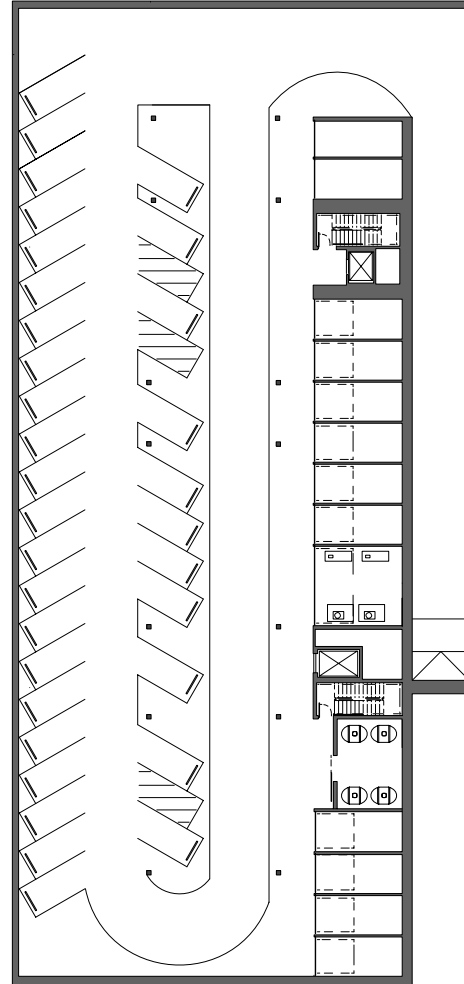
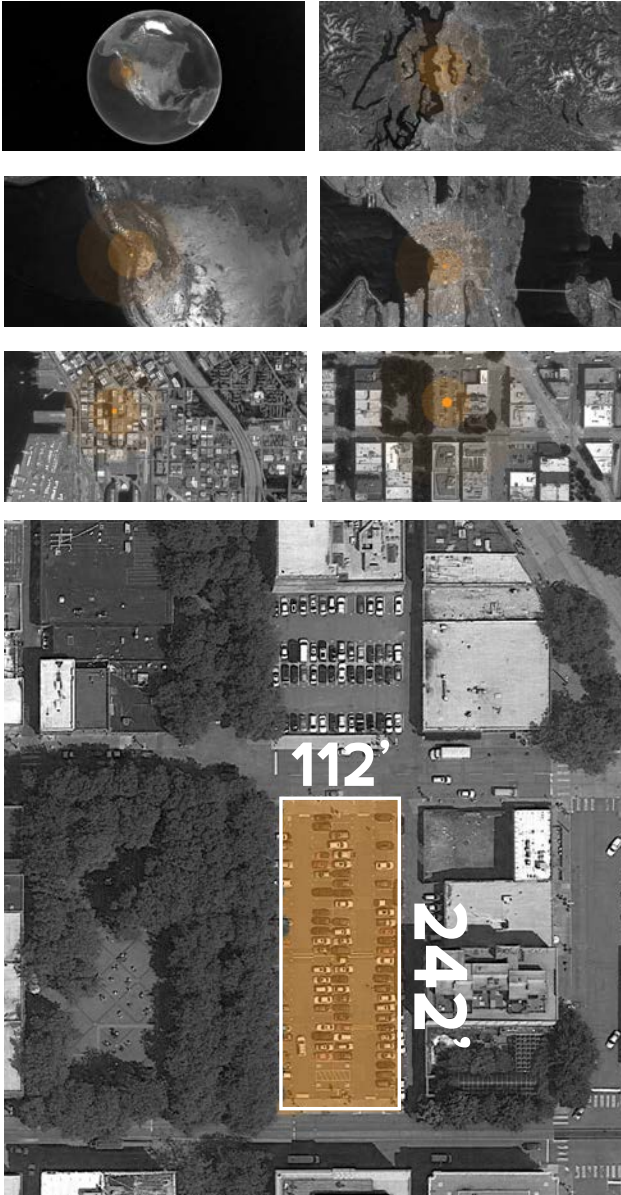
Phase 2



Phase 3

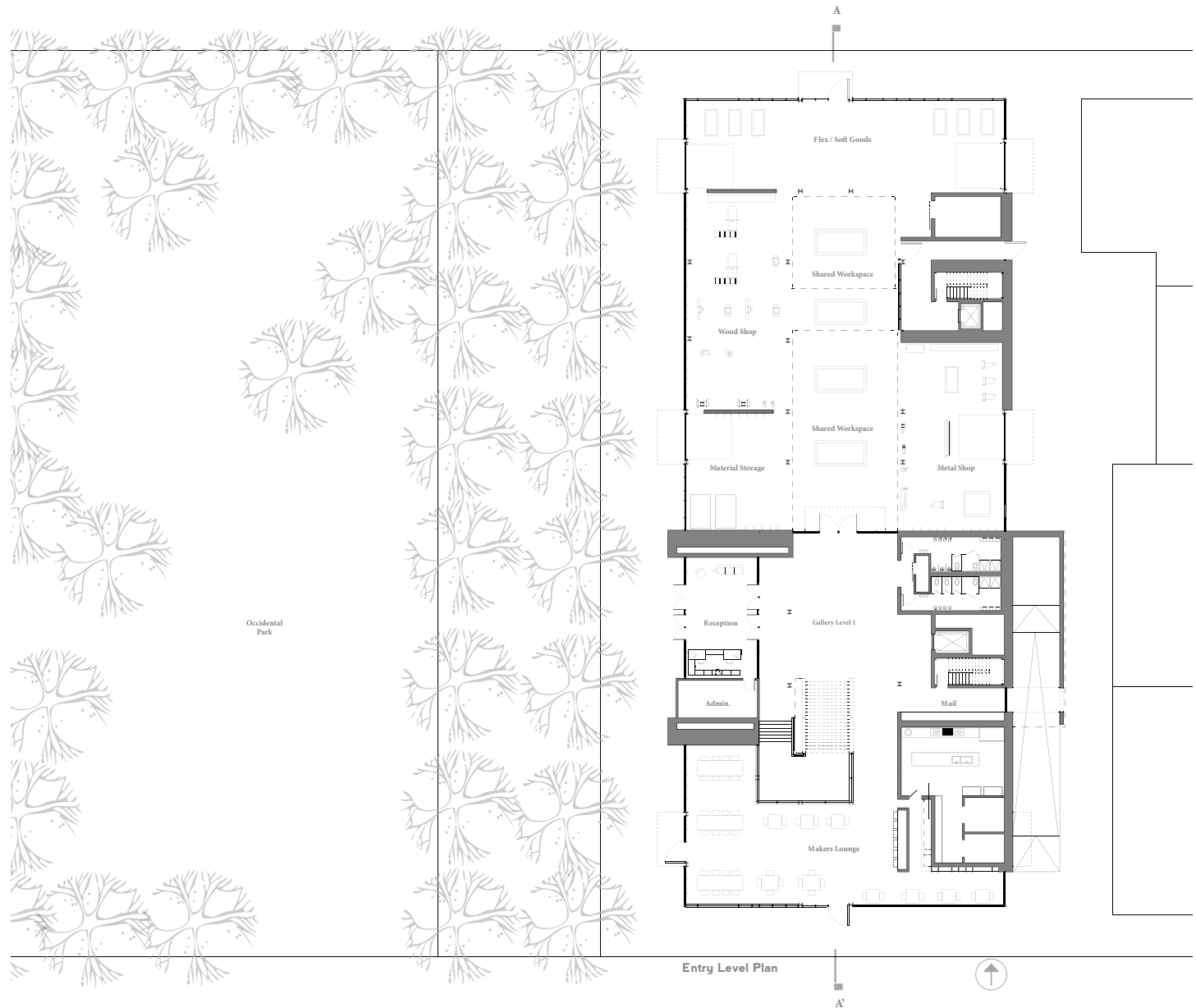


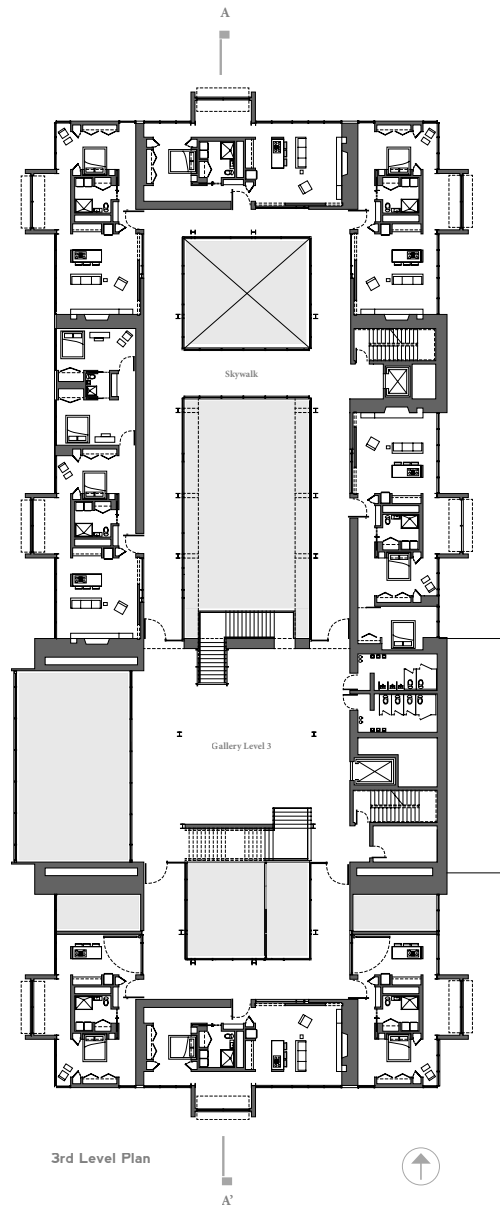
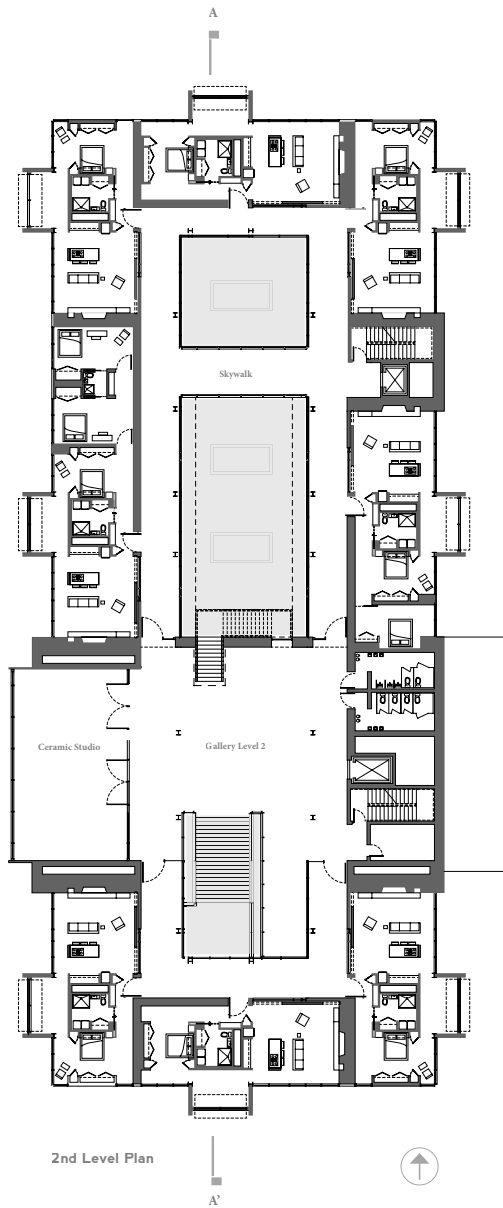


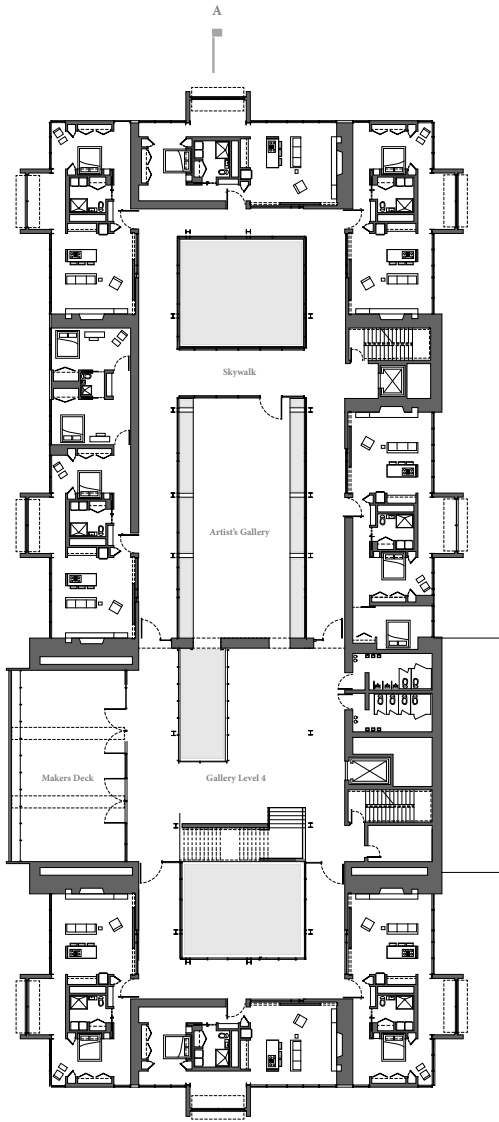


Automobile Sanctuary



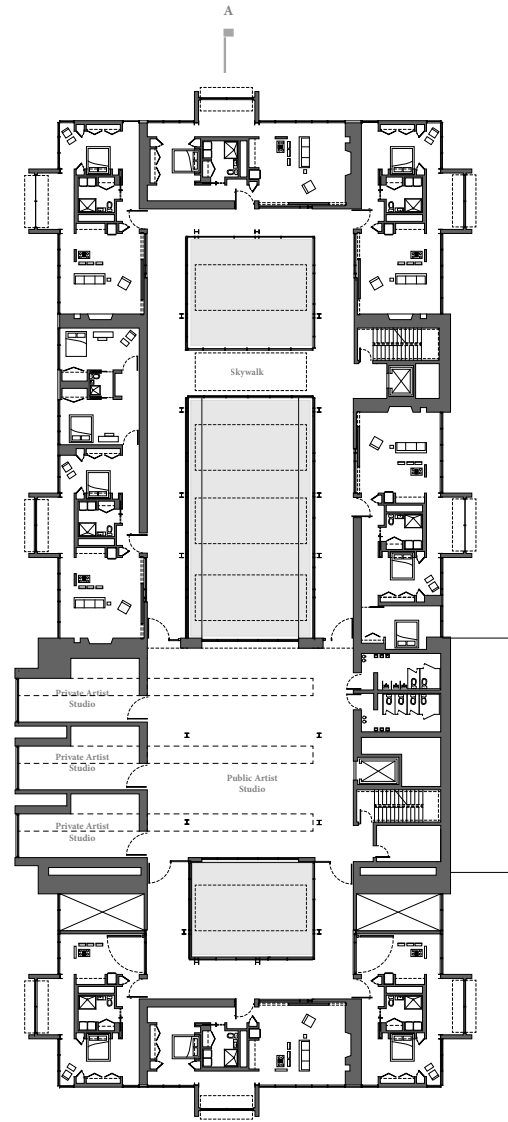






4th Level Plan

A'



5th Level Plan

A'



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