

"Ecology and Place in Homesteading Principles"

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## **Ecology and Place in Homesteading Principles**

### **Abstract**

Homestead, as a dictionary definition, consists of a dwelling and property where a family resides. However, the fundamental principles of sustainability, stewardship and engagement with the land plays an important role in human health and development. I grew up playing in the dirt, hearing the dinner bell ring and smelling fresh cut alfalfa. These sensations resonate meaning; for rural communities' these experiences are self-defining providing identity and the creation of place. Nature of place refers to the human feeling of belonging to a given area. Farming, family and faith defines a culture that works and lives closely with the land. The physical, cognitive and spiritual relationships develop a value system that defines culture and identity despite today's globalizing capital and synthetic environments.

Self-sustaining, ecological farmsteads are the main focus of this paper. The antithesis considers two current issues: the threats of global society on place identity and the consequences of material/artificial dependency on human health. This leads me to question the meaning of self-sustainability. Why should a person be connected to his or her life source - the land - and experience nature at an intimate

level? Investigation contains the values earned and defects of sustainable lifestyles. Living harmoniously with the environment is key in understanding human relationship with natural surroundings.

What is the value of having connectedness to the land verse interconnectedness within global economics? Through a series of interviews and observation, I'm learning how localized sustainable agriculture systems, such as organic farming and permaculture, are rooted in environmental ethics aimed at teaching, improving and connecting people to our natural resources. These homestead principles contribute to the identity of environments by reflecting locality through materiality, sensory engagement and hands-on education.

With ever-increasing virtual practices, human perceptual engagement shifts our communication standards. Dependency on material culture and lose of identity have created a new movement of modern homesteading and organic farming. These explorations question how place and values create an authentic, healthy environment.

### **Introduction**

I have fallen in love with the Pierman Homestead located about 2 miles south of Ottawa, Ohio. The orange/red brick, 2-story farmhouse rests on a thin country road, surrounded by fields and forests.



Multiple vernacular style farm structures border the home and a pond is situated between the farmhouse and granary. The drive-way terminates at the front door welcoming all who approach. The trees frame the main house taking my breath away every time I drive by.

While experiencing the home, tears fill my eyes. What is it about this home that evokes so much emotion? <sup>1</sup>Juhani Pallasmaa writes "In experience, we find a combination of the biological and the culturally derived, the collective and the individual, the conscious and the unconscious, the analytical and the emotional, the mental and the physical."

The Pierman homestead holds a spirit that I hold within myself. A loving appreciation for nature, spiritual connection and family life. It's an architecture that reflects happy memories of my past. I remember the bumpy tractor rides and the aroma of wheat being harvested. Exploring the barns, smelling manure, crawling through the itchy hay mounds at my grandparents were my afternoon adventures. After playing outside, my cousins and I would walk inside the farmhouse, smelling baked apple pie and beef stew. Warmth was felt from natural daylight flowing through the expansive kitchen and dining room windows. The grandfather clock would sing every ½ hour.

I recall playing in the woods, exploring the fallen tree trunks – always coming home with dirt on my hands and knees. We were told to wash up before supper and then were forced outside again after eating. These outdoor adventures were meant to tire us before bedtime, and most days, it worked.

These aspiring childhood memories bring a smile to my face. My grandparents' farmhouse, the woods and barns are places that I consider home and that I have forever identified as my roots. The experience involves a connection with nature, involvement of farm labor and an appreciation for life's simple measures on family and faith. I have a gratitude and connection to what sustains me. In translation to architectural design, connectedness to life's fundamental needs allows for the development of identity and place that contributes to the human experience.

In returning to the fundamentals, I reveal psychological consequences of a globalized culture and artificially focused environment. Capitalism and the globalized market have created wide spread opportunities for material consumption and a loss of autonomy. Today, many built environments are bound by technological advancements that provide idealized human comfort-controlled thermal



conditions, artificial light and manufactured furnishings. These environmentally controlled buildings, quick and expansive construction projects and manipulation of the natural environment has little consideration to land's ecology and its impact on human health.

What are the consequences of artificial environments? How is the human experience affected when displaced from the natural landscape? How much can human's change and manipulate the land's ecology before our source of food becomes lifeless?

Farming is standardized requiring the use of high technological equipment, pesticides and fertilizers to meet consumer demands and health codes. Few people have access to farming principles. And even fewer people have experienced sustainable agriculture practices and lifestyles. The quality and values of agricultural systems have degraded to a global, industrialized object. Relationship and connectedness have diminished due to aims of capitalism: efficiency, higher production, less labor and lower cost.

Organic farming principles merged with ecological architectural design promotes a social and environmentally responsible architecture. Structure that communicates how it works with the landscape reveals our dependency on the land's ecology. Natural sensory engagement creates place rooted

in environmental principles. Working with agricultural and landscape systems makes one conscious of human fundamental survival needs. <sup>2</sup>This social intervention forms relationships between the human mind and body, self and environment.

## **Methodology**

This paper considers readings pertaining to the theories of place, phenomenology and identity that signifies the importance of basic homesteading principles. The story of the Pierman Homestead portrays one family's desire to connect with not only their biological roots, but also with the natural environment. The home embeds values of stewardship, relationship, faith and family.

Observational research was completed in Putnam County, Ohio which is the focus of the thesis development. This county in North-West Ohio is located centrally between the Indiana border, Defiance, Findlay and Lima, Ohio. With a current total population of approximately 34,198 people and the largest town containing roughly 4,500 people, it's considered a non-metro, rural landscape. Identity and place are relevant in the counties existing structures. However, character and culture is threatened by changing demographics, economy and climate change.

In studying the transformation of the Pierman homestead, I interviewed Putnam

Pierman Jr., the son of late Put Pierman and Sybil Pierman, the wife of Put Senior.

I have also spoken with multiple community members including the following: Anna Mae Blankemeyer (attorney), Jeff Krouse (neighbor), and Keith Eiden (community member). Each person brings new perspective and insight to the property – the experience felt emotionally, physically and historically. The history and background provides insight to the appreciation of the natural environment and reveals the county's cultural identity.

People are a leading source for understanding tradition, values and heritage to reveal the metaphysics of space. Understanding the activities that once took place at the homestead, provides an explanation for what, how and why the design worked then and how the redesign and adaption works today.

Studying self-sustaining homesteads outside of Putnam County explains how a reconnection with nature and designing with ecological principles develops an identity. In contrast to a globalizing culture, designing for place requires engagement with local resources and sensory environment. Technology and natural processes together lead towards environmental responsibility and a higher quality of life.

## **Background: The Family Farm Verse Global Economy**

A farmer's ideology is knowing the land, understanding its ecology and producing surplus food to sustain human life. However, agriculture has transformed greatly within the last 200 years defeating the idealized memories of farm life.

Putnam County, Ohio is a non-metro county formed by the state in 1820. It was known for its fertile soil producing mainly wheat, corn, potatoes and oats. The topography is uniformly flat with rivers and streams that provide minimal natural drainage. This region of Ohio was once swamp-land "covered with water and dense aquatic vegetation" (Kinder 1915). Today thousands of miles of ditches provide drainage for the once mucky soil making it very productive.

Over the last few decades, climate change has created a larger fluctuation of temperature ranges, precipitation amounts and types. This has made it increasingly difficult for farmers to predict and prepare for weather changes. Planting seasons are more docile. Farmers with few acres are heavily affected due to the production potential available. However, mega-farms with more acreage have less risk because, with more land, the yield potential is higher.



Although farming has always been a gamble on weather, the more unpredictable the weather patterns, the more difficult the planting and harvesting season becomes. Reliance on chemicals and pesticides are high and desired for increased profits, financial stability and ability to compete with corporate farms. Although climate change is an additive risk, competition and market have slowly eradicated the family farm.

Between the 1700's and 1800's, many Midwest communities developed around agriculture production. In 1800, 80% of the U.S. population farmed. No chemicals were used and it took approximately 250-300 hours to produce 100 bushels of wheat.

<sup>3</sup>Machines to aid in productivity were invented and industrialized principles were introduced: "specialization, standardization, and consolidation." Chemicals were introduced to improve profits and yield. In 1950, 22 million tons of chemicals and pesticides were used. This increased yield and decreased labor hours. It now took 10-14 hours per 100 bushels of corn. For family farms, this meant survival in order to compete with the mechanization corporate farms. However by 2000, the U.S. farming population dropped to 2.6% and chemical use was over 32 million tons. It takes only 2-3 labor hours for 100 bushels of corn.

The adoption of industrialized and capitalistic methods lead to increased productivity, crop yield and efficiency. Today's environmental impacts include soil damage, erosion of topsoil, water contamination and loss of a diverse biological community. This includes the more recent algae bloom in Lake Erie. The poisonous water contamination, created largely by phosphorus run-off comes from fertilizers and animal waste. The toxins left over 500,000 people without a fresh water supply. The many years of chemical dependence has forced people into action environmentally. However the impact is both environmental and societal.

The loss of small, family farms created impoverished rural communities and multi-national corporate farming structure. Economically, Putnam County has slowly been decreasing in population similar to many Midwest counties.

Although we have gained lower food prices, the quality has suffered. Farmers no longer make the decisions being made in the agricultural business and consumers no longer know how to produce their own food or where their food is made. This displacement separates human life from what sustains it. This form of ignorance distances us from a freedom to live for ourselves making us dependent on world and national economy, market and other man-made institutions. Farming patterns

and strategies become reliable on governmental and political practices.

<sup>4</sup> "The agriculture corporations dictating the terms of these contracts are legal entities but they are not people... no families, no friends, no communities, and increasingly , no national citizenship." Globalized marketplaces threaten agriculture stability and quality. <sup>5</sup>According to Anthony King, globalization is "a process by which the world becomes a single place." However, distinction between globalized agriculture and a globalized ecology needs to be confirmed.

Environmentally, the world's ecosystem is connected and works as a whole. Climate change reveals the growth of arid, deserts in the Middle East and the melting of ice caps off of Greenland. This change has occurred through the universal effects of human by-products. Designing and living sustainably as a global community protects earth's ecology and the natural resources needed for survival.

However, food production within the capitalist structure distances people from what sustains them. Although cultural connectedness has educational benefits, loss of autonomy inhibits identity of a place. For example, those who enjoy traveling also enjoy tasting authentic foods within a given context. Local food sources creates place – a cultural identity - by

connecting people to the land's resources. <sup>6</sup>Agriculture should be based on "ecological integrity, social responsibility, and economic viability."

### **Modern Homesteading and Sustainable Agriculture**

Modern Homesteading is a recent movement for self-sustaining living in your own backyard. Independence and freedom are key terms used by families making this change in lifestyle. Homesteading is based on hard work, time and care taken into designing and building sustainable life structures. Environmental solutions for energy may be taken into consideration. Gardens, livestock and built structure encourages connection to life's necessities.

Modern homesteading is not about disconnecting with society or returning to past ideals. It's about human health, self-reliance and establishing values on work ethic and understanding human place in the natural world. <sup>7</sup>Elizabeth Barlow Rogers speaks about the ideas of the French philosopher, Gaston Bachelard, saying, "...we are still place-bound creatures... we carry "placeness" in our genes and in our sensory apparatus as human animals, and because biological nature is still the matrix of our existence we long to feel at one with the natural world".

Historically, homesteading began with lessons learned from rural farmstead



practices – how to be thrifty, dry and can foods to extend food's lifetime through winter seasons and make use of the resources readily available on the farm. Its growth in urban and suburban areas has grown into community gardens. <sup>8</sup>Outside Los Angeles, the Dervaus family grows their entire food supply within 1/5 acre. Goats, chickens and plant life sustain their food. Waste vegetable oil from local restaurants is used to create fuel for the family's only vehicle. Solar panels create energy for power needed for the home's daily functions.

The suburban family farm has become a center for community development. Neighborhood families and local restaurants have started purchasing additional food the family cannot consume. School children visit to learn about food and growing techniques.

<sup>9</sup>The family's way of life is "recession proof." Economically, the family is minimally dependent on the fluctuations of national and global economics including food, material prices and oil. Personal benefits include physical health, emotional and spiritual growth. Values such as work ethic, stewardship and connectedness become a way of life. Naturally, the respect and connection built with the land extends into community development and human relationship. People and family are valued. The place forms a sense of purpose and

meaning, creating bonds within a healthy environment.

<sup>10</sup>It's important that architecture and people "... be conscious that they are a part of a natural world, inextricably tied to the ecological systems that sustain their lives." Before artificially operated environments, people were subjected to physical elements like the seasons, land, tools and ability to create freely. Farmers were those that knew many things. They were plumbers, carpenters, mechanics etc. Today, everything has become specialized. People have become disconnected with the actual and depend heavily on machines and technological advancements.

Many people are recognizing the importance of stewardship, reuse of materials, craftsmanship and sensory engagement with the natural world. The late Putnam Pierman Senior was one such individual who appreciated homesteading principles.

### **Pierman Homestead**

<sup>11</sup>Like most of the Midwest, Putnam County "reflect(s)... functional rituals of farming, its architecture and its way of life." The Pierman Homestead was constructed by Sam Pierman in 1855. Barns reflected the uniqueness and character of the farmer's knowledge on visual order and composition.

The layout was simply organized (Figure 1). Visual connection between structures and spatial arrangements allowed for direct movements, hauling and loading hay and other farm operations. Larger barns were needed to house animals and store feed. Granaries and silos were needed to store and protect harvests before going to market. Smaller sheds were erected to provide places for maintaining and repairing machinery and equipment. The composition is unique, identifying the functions and telling the story of traditional farm labor.

Figure 1: Site Plan



Figure 2: Detailed Site Plan



The place reveals an aura of family, life and faith. <sup>1</sup>Sam Pierman, the original owner and builder, proclaims a story on the meaning of home that was instilled in Put Senior. <sup>12</sup>"Certain early memories retain their personal identifiability and emotional force throughout our lives" which is "proof of the importance and authenticity of these experiences."

After purchasing the homestead from his grandparent's estate in 1972, Put Senior dreamt of restoring what's important. <sup>13</sup>In an article of the Farmland News, Put said "The more I've traveled, the more I've respected my family's roots and realized the value of my rural heritage... I want this place to remain in Pierman hands and I want it to represent solid ties with the past, the kind of ties that insure good stock in the future."<sup>14</sup>Although a businessman by trade, Put and his family spent every

<sup>1</sup> Sam Pierman built the farmstead in 1855 when he returned home with a small fortune from the California gold rush. He fulfilled his

dream of building a home for his love, Margaret Clark and started a family.



summer working on maintenance projects and converting the homestead to a place for retreat – peace, serenity and connection with nature away from city life.

The homestead became a sign of culture. It was a territory that brought fond memories for Put. As seen in figure 2, many updates and modern conveniences were added to the vernacular structures. However, Put Senior was careful not to detract from the history and aura of rural life by maintaining the form, spatial composition, materiality and use of local resources.

The centrally located farmhouse had a rear living space and second floor bathroom addition (Figure 2). <sup>2</sup>This was done by trucking a 150 year old log cabin from Glandorf and carefully attaching it to the brick home. Rather than building with completely new materials and conventional methods, the Pierman family reused a piece of primitive structure to reserve ties with county history. <sup>15</sup>The homes “ties with his (Put’s) past are very strong and very real.” The realness of place is alive in not only the memories, but also the home’s structure and building methodology.

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<sup>2</sup> Glandorf is located approximately 6 miles from the homestead. The log cabin was an original home place of the Unverferth family.

Figure 2: Farmhouse



Figure 3: Guest House



<sup>3</sup>Other historical additions to the farmstead were a 200+ year old cabin that was brought in from Leipsic, as a guest house (Figure 3). Put and his wife, Sybil Pierman, desired a place for visitors to feel self-sufficient and have privacy while enjoying the rural culture. They later added modern amenities like electricity, heating and cooling for guests’ comfort and enjoyment.

The guest house was placed on the edge of the Pierman’s woods and field secluded from a traveler’s views. Before saw mills, lumber was cut by hand. Roughly grained

<sup>3</sup> Leipsic, Ohio is a county village located 15 miles from the homestead.

lumber and mud/mortar mixture tell a story of life before machines. The textural qualities of stone add to the primitive quality.

Although modern amenities were added to the home, the utilization of reclaimed barn wood speak of locality. The continuity between original and new does not distract from the vernacular style (Rossi 1996). The texture and color communicate time while the material choice of wood speaks of place.

Just north of the guest house is a white wooden cross and a 150+ year old primitive structure on the edge of the river (Figure 4). The cabin holds an iron stove, coal-oil light and has no electricity or plumbing. The cabin protects a graveyard and resting place of possibly 80 pioneers of Putnam County (Figure 5).<sup>4</sup>The structure was named Connet's Cabin – after William Connet - to reflect the sacred, private place (Gasche 1988).

Figure 4: Connet's Cabin



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<sup>4</sup> The headstone reads, "Mary, consort of William Connet; died December 1, 1849; age 20 years, 7 months and 4 days."

Figure 5: Resting Place



Figure 6: Signage



This cabin is the most secluded structure located on the north end of the property. Connet's Cabin respectfully rests within the context of the river, woods and corner of the field. It's a place where a man's spirit and nature come together. The cabins primitive nature reflects the life, history and memory of those who have passed on. Here the design becomes more than an analogical architecture. This sanctuary is the "...home of spirits, the dwelling place of metaphysical beings" (Pallasmaa 1996, 452) both literally and figuratively.

Sybil describes the sanctuary as Put's place for peace. The path leading to the sanctuary is a threshold. Signs are posted



along the path to not only guide but prepare the visitor spiritually to embrace isolation, self-reflection and encounter God's presence (Figure 6) (Sybil Pierman 2014).

The collection of cabins and the well-maintained farmhouse was just a part of the Put's dream. Put was environmentally conscious preserving the natural habitats by avoiding disruption and installing feeding stations for the wildlife. A modernized septic system was meant to prevent water pollution. No hunting was allowed on the grounds to protect both habitat and the sacred, spiritual nature of the landscape.

It is important to understand that the farmstead and ideals were not designed by studious designers and architects. Family and faith – the doing and the making - rooted people and motivated commitment to culture and identity. Put saw the values in maintaining and restoring the past. Put told the Farmland News,

'I know people with race horses and yachts... and things like that are fine for those who want and can afford them. But for me, this homestead and its restoration is more important. I like coming up here

from the city and working with these guys<sup>5</sup>. They know so many skills from other times that are so much more valuable than any of us realize' (Gasche 1988).

The people and the metaphysical character of place encouraged Put to commit his life and fortune to preserving heritage for his family, the community and the environment.

### **Conclusion**

An artificial, mobile and virtual world minimally engages human perceptions limiting our abilities. This leads to an architecture that "no longer (is) in touch with the reality of experience outside itself, not to mention striving consciously to depict and articulate the sphere of our consciousness" (Pallasmaa 1996, 449). Natural environments promote actions that connect and form relationships. Natural sensory engagement opens opportunity to have a full physical, emotional and spiritually engaged life.

In agricultural communities, working with the land and cultivating plant life provides satisfaction in the work of hands.

Advancements in chemical usage have hurt farming communities and land ecology. However, the growth of the

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<sup>5</sup> Put hired local caretakers for the homestead while he lived in Columbus. Local craftsman and carpenters often aided in site and building projects.

modern homesteading movement, organic and sustainable farming have proved to connect people with each other and the natural world.

The Pierman Homestead is an opportunity to set an example the re-establishment of organic and sustainable farming practices. The site's natural landscape – forest, rivers, creeks, meadow and farmland, promotes an ecology that engages a visceral experience connecting people to the natural landscape. The use of sustainability and natural systems, integrating green infrastructure and protecting nature's resources allows the environment to thrive. People and architecture should consciously be in harmony with nature. <sup>16</sup>William McDonough states the following:

“...to live within the laws of nature means to express our human intention as an interdependent species, aware and grateful that we are at the mercy of sacred forces larger than ourselves... We must come to peace with and accept our place in the natural world.”

Designing for the environment is one part of an ethical architecture. Quality of life is a balance of the physical, emotional, cognitive and spiritual. Sensory engagement through sustainable design practices is one of many ways to bring awareness to the environment and quality

of life. It connects people with the natural world.

## Endnotes

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- <sup>2</sup> Rice, Robert Rogerson and Gareth. 2014. "Making Sense of Places: "Moral Geographies of Sensory Urbanism"." *Ebsco Host*. 4 4. <http://eds.a.ebscohost.com.proxy.lib.muohio.edu/ehost/pdfviewer/pdfviewer?vid=5&sid=0fc16555-cb7f-4058-8f7a-c17ba7da3b14%40sessionmgr4003&hid=4103>.
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- <sup>7</sup> Rogers, Elizabeth Barlow. 2001. *Landscape Design: A Cultural and Architectural History*. New York: Harry N. Abrams.
- <sup>8</sup> 2008. *Urban Homestead-Living the Real Simple Life*. Performed by ABC News.
- <sup>9</sup> 2008. *Urban Homestead-Living the Real Simple Life*. Performed by ABC News.
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- <sup>13</sup> Gasche, Del. 1988. "Putnam County is Where Put's Heart is!" *Farmland News*, June 21: 25, 37-39.
- <sup>14</sup> Sybil Pierman, Putnam Pierman Jr., interview by Abby Schroeder. 2014. *Pierman Homestead - History and Memory* (3 16).
- <sup>15</sup> Gasche, Del. 1988. "Putnam County is Where Put's Heart is!" *Farmland News*, June 21: 25, 37-39.
- <sup>16</sup> McDonough, William. 1996. "Design, Ecology, Ethics, and the Making of Things." In *Theorizing an Agenda of Architectural Theory 1965-1995*, by Kate Nesbitt, 398-407. New York: Princeton

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# Design Considerations

## Contents

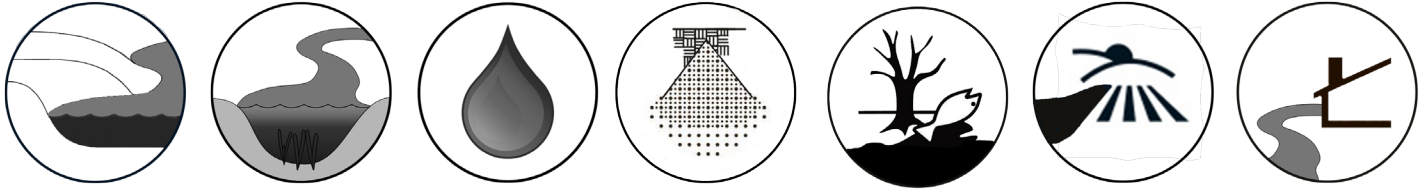
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## Ecology



## Restoration



EROSION, IN-STREAM AND STREAM BANK, CHANGES IN WATER QUALITY AFFECTS, SEDIMENT AND NUTRIENT LOADING, HABITAT LOSS, LOSS OF BUFFERS IN AGRICULTURAL AREAS, ENCROACHMENT OF STREAM IN NEW DEVELOPMENTS

THE CURRENT ECOLOGICAL CONDITION SUGGESTS NEEDS FOR A RESTORATIVE ENVIRONMENT THAT PROVIDES WETLAND DEVELOPMENT, RIPARIAN BUFFER ZONES, SWALES FOR WATER HARVESTING, NEW FOREST GROWTH AND WILDLIFE CORRIDORS. A SUITABILITY ANALYSIS USING GIS SOFTWARE STUDIES SOIL TYPOLOGY, FLOOD PLAINS, SLOPE AND DISTANCE TO WATER AND DETERMINES THE BEST AREAS FOR WETLAND DEVELOPMENT. RESTORED FOREST AND WILDLIFE CORRIDORS CONNECT THE SURROUNDING NATURAL FEATURES. PERMACULTURE PRINCIPLES MERGE WITH FARMING LIFESTYLES

## Rural Stimulus



## Education and Destination



Rural livelihood is for visitors needing to step outside urban lifestyles and experience the adventures of nature and farm life in an intimate family setting. Permaculture education is also offered to broaden the program's market and provide sustainable learning for local and out-of-state residents.

## Rural Preservation



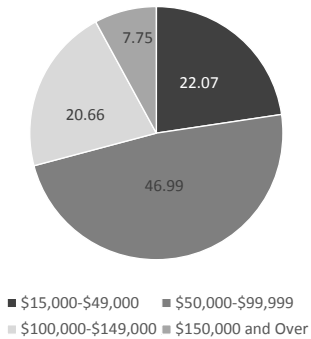
## Working Farm



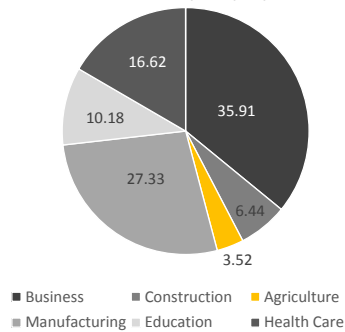
We communicate in a virtual world that disrupts relationships with our surrounding environment. Materials and food products are processed remotely from our perception leaving us disengaged with fundamental life practices. By engaging with permaculture principles (ecological agricultural and sustainable human environments), we can reconnect physically, emotionally, and spiritually to gain a deeper understanding of self and place.

# Putnam County Statistics

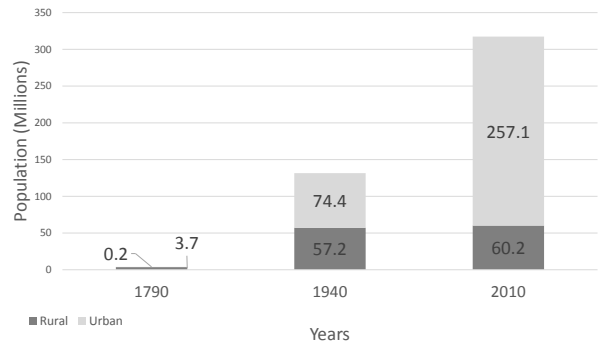
Putnam County Income



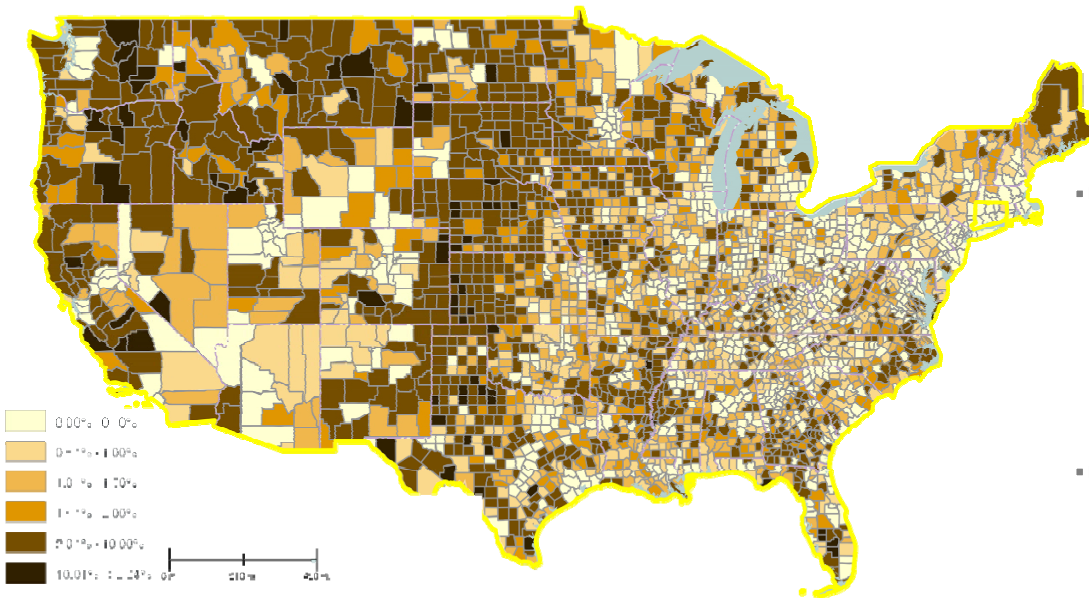
Putnam County Employment



U.S. Urban to Rural Population Growth

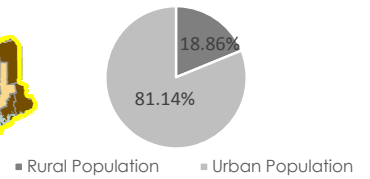


# United States Statistics

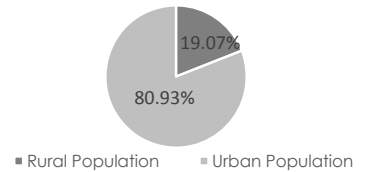


USA 2013 % OCCUPATION:  
FARMING, FISHING AND FORESTRY

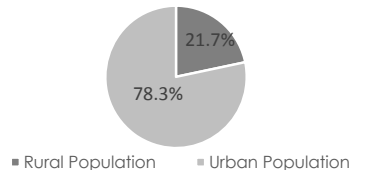
2018 USA Projected Urban to Rural Population



2013 USA Urban to Rural Population

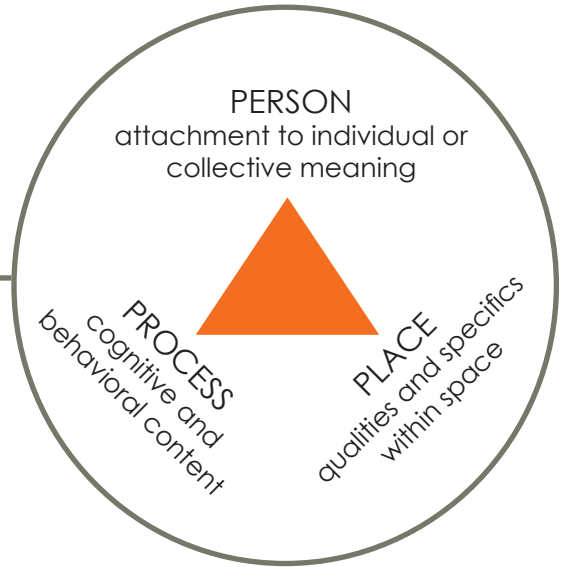
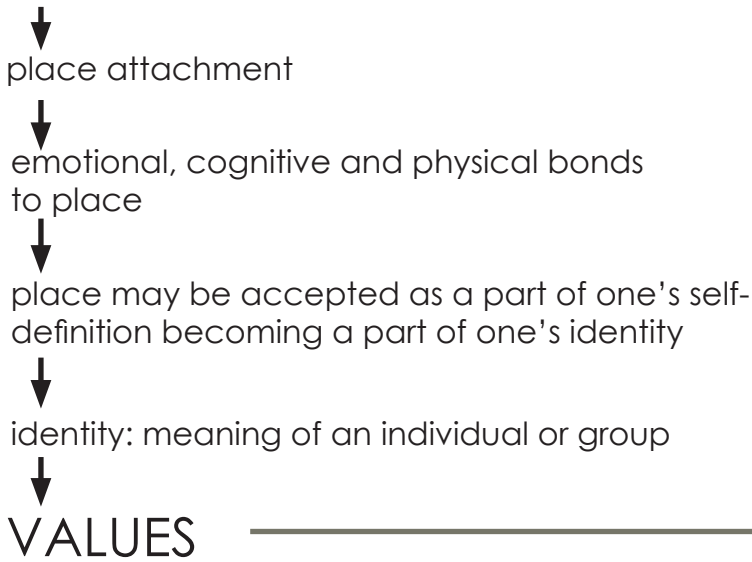


2010 USA Urban to Rural Population



# PLACE

place: setting(s) where people live their lives and engage in life's activities



INDUSTRIALIZATION  
CAPITALIZATION  
STANDARDIZATION  
GLOBALIZATION  
MOBILIZATION

Loss of Place and Values



Urbanization and sprawl into rural landscape



Loss of fertile and soil due to climate change and pesticides



Commercialized farming diminishing family farms



Rural Poverty



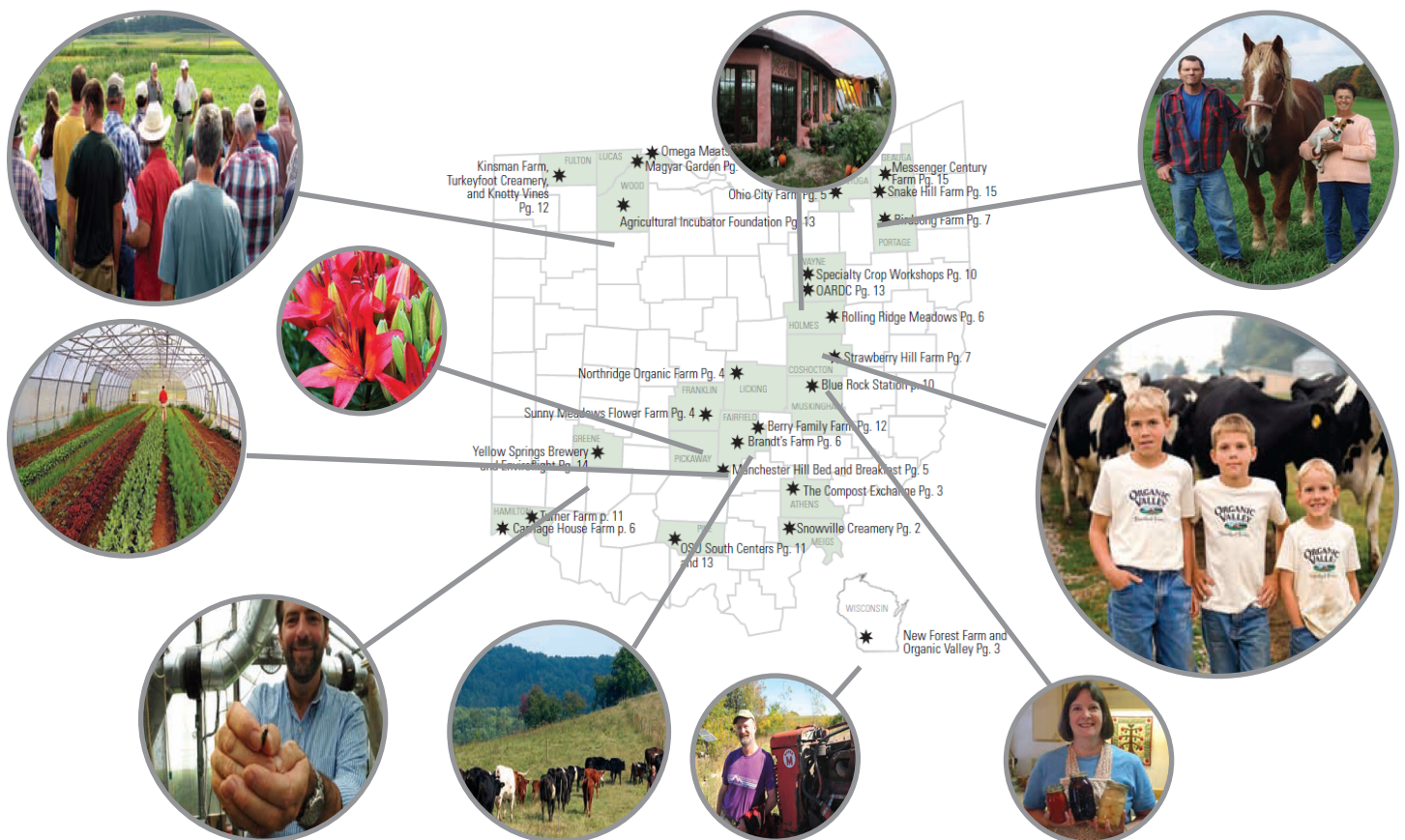
# GETTING BACK TO PLACE

Farmers are...  
 stewards of the earth.  
 knowledgeable.  
 wise.

Farmers....  
 care for the land.  
 have a relationship with the land.  
 protect the natural environment.  
 work with nature and are in harmony with it.  
 grow crops based on soil type and climate.  
 build relationships.

Farming is...  
 inseparable from family.  
 a way of life.  
 ecological.  
 economical.  
 spiritual.  
 social.  
 sustainable.

# SUSTAINABLE AGRICULTURE - OHIO









# Program Summary

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Market	26
Agriculture and Animals	27
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Ottawa, Ohio is a modest town of about 5,000 city residents and 10,000 country residents. Located in Putnam County, Ottawa rests along the Blanchard River between Findlay, Ohio and Fort Wayne, Indiana. Founded in 1833, the city was named after an Indian tribe whose village location was on the site. Ottawa became a destination point for countryside farmers. The railroads allowed community farmers to market around the United States. Today, Putnam County's land consists of approximately 95% agricultural fields. However, it's largest employers are manufacturing, construction and retail.

Last spring I took Modern and Contemporary Architecture where I studied how sensory environments provide place and identity for a culture and people. Having a love for rural communities, I was immediately drawn to the character, aura and nostalgic atmosphere. The multiple structures communicated a story of a once functioning family farm. After researching the property, I knew that I had to continue unfolding the story that held a sense of locality and unique charm that I desired to understand.

The owner, Putnam Pierman (Put), recently passed on and a soon-to-be sale was taking place. The 1855 homestead had not been in farm production since the mid-1970's-80's. Although Put never farmed, he continually traveled to the farm every summer to bring his family and friends.

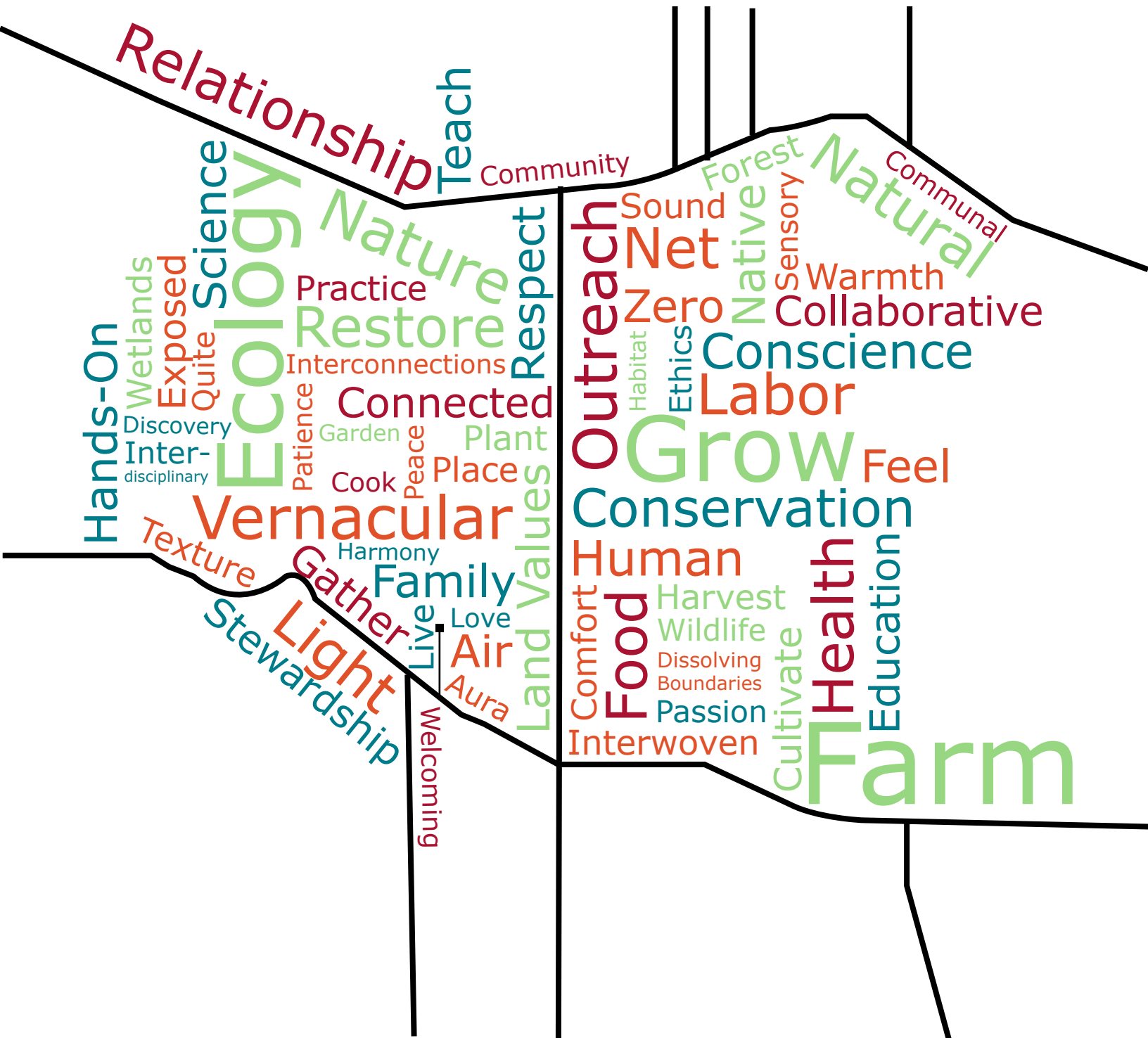
The values Put experienced at the homestead is the inspiration for my thesis. I proposed an educational retreat center that adapts and adds to the existing structures. The program markets to local residents, high school programs, permaculture enthusiast and vacationers by hosting workshops, permaculture training courses and other creative learning opportunities.

Education is a starting point to gather people, knowledge and processes and creating change. Permaculture principles and teaching bring all forms of people and ideas to creatively produce food that brings enjoyment, prosperity and health.

## CONCEPT

We communicate in a virtual world that disrupts relationships with our surrounding environment. Materials and food products are processed remotely from our perception leaving us disengaged with fundamental life practices. By engaging with permaculture principles (ecological agricultural and sustainable human environments), we can reconnect physically, emotionally, and spiritually to gain a deeper understanding of self and place.





## QUICK FACTS

Number of Full-Time Faculty: 8

Average Number of High School Student Hires: 5

Number of Total Acres: 440

The Pierman Homestead is a hands on community/education/retreat center that engages in the ethics of land, animal and human life. The 140 acres of land is a vacation destination, permaculture skills center and working farm that brings together rural livelihood in an ecologically based landscape. The homestead strives to educate those desiring to live and eat ethically through natural systems. The farm also is for those needing to step outside urban lifestyles and experience the adventures of nature and farm life in an intimate family setting.

The executive director resides in the historic 1855 homestead and utilizes the existing garage for private use. The bunk house is converted to a gathering space for both guests and employees. The current kitchen is converted into a bathroom space that is accessible from the outside for guest use. The remaining structures are being studied for design development and program implementation.

The desire is for employees to create an atmosphere of family and farm. The executive director, business manager and coordinators have private office spaces within the lodge. The supervisors have office spaces in locations that coordinate with their duties. Although private offices are provided, employees are most often working outside with local hired hands. Together, the staff grows produce for the on-site dining facility, local restaurants etc. Field crops are sold for profit and used for animal feed. Animals are also used for on-site dining and outside sale. Guest have the opportunity to involved with daily chores, food cleaning and preparations. Together the staff, their families and guests eat dinner and enjoy evening activities together.

Visiting teachers are typically permaculture experts and bring new ideas and techniques to be used on the farm and within local communities. Teachers may stay for a minimum of 1 week to maximum of 1 month.





## Activities

Camps,  
Day activities,  
Harvesting Festival  
Orchard Picking  
Hayrides

## Spaces

Outdoor Teaching  
Spaces,  
Orchards  
Edible Forest  
Animal Barns



Ag Studies,  
Field Trips,  
Permaculture  
Education

Outdoor Teaching Spaces  
Indoor Teaching Spaces  
Greenhouse  
Gardens  
Edible Forest  
Animal Barns



Retreat,  
Practice Farming Operations,  
Hiking and Nature Walks,  
Fishing, Swimming,  
Pond Activities,  
Evening Events,  
Food Harvesting and Cooking  
Classes

Reception, Offices  
Lodging  
Restaurant  
Kitchen Learning  
Food Storage  
Greenhouse  
Garden Storage  
Pond Activity Storage



Conferences,  
Organizational Retreats,  
Permaculture Education,  
Field Trips,  
Community Events

Conferences Room  
Event Space  
Indoor/Outdoor Rooms



QUICK FACTS  
 Number of Acres for Agriculture  
 Production: 300

NARRATIVE  
 The goal is to implement sustainable agricultural practices and assist the local rural and urban communities by sharing concepts and knowledge of learned practices and values. Emerging practices and permaculture principles are applied to create a sustainable system for restorative environments and food production. A diversity of field crops, edible forest gardens and food establishments are designed through permaculture principles.

The retreat center allows guests to gain hands-on experience planting, harvesting, feeding and caring for the land and animals. Youth field trips, farming conferences and seminars are held to reach out to local farmers and engage youth in farming, fun activities.

Farm production circulates ingredients within the local context. Cattle, sheep, chicken and goats bring meat, eggs, milk and cheese to the restaurant on site and local eateries. The produce gathered is cut and cleaned on site. Weekly deliveries are brought to Ottawa's high school for salad bar and meal options. Canned or dried foods are available for purchase on the shelves of the farm's store. Additional dried foods are bagged and brought for purchase at Ottawa High School for daily snacks.



QUICK FACTS

Number of Teaching Faculty: 2-3 on average  
Number of Permaculture Students/Session: 20

NARRATIVE

Permaculture is a living system that seeks to merge human and natural systems. Design and implementation of ecological practices promote healthy planetary change and restorative ways of life.

This sector provides workshops and training programs for the permaculture certificate. Retreat guests may take part in workshops. Two weeks training sessions work with on and off-site projects being implemented in the surrounding communities both rural and urban in context.

Training sessions take place April-June and September-November. Intensive weekend and two-week courses are available. On-site lodging provides living spaces for up to 25 people. Lecture, design and implementation aids in restoring ecological needs both on and off site. Permaculture design includes water harvesting, soil building, integrated pest management, sustainable forestry, hardscapes, pond/water features, bioremediation and grey water wetland systems.

Coursework is related to ecology and sustainable agriculture practices. This may include introduction to sustainable agriculture, organic crop production practice, seminars, environmental and agricultural education etc.





#### QUICK FACTS

Number of Vacationers: 25

Number of Cabins: 8

#### NARRATIVE

During the stay, visitors become a part of the employee family. Guests can choose to stay at one of eight cabins or stay in the lodge.

Cabins are one and two bedrooms with a short walk to the meeting, lodging and community activities. Cabins are privately scattered along the forest edge. The lodge is community focused living with a shared living space and 6 private bed and baths. Seasonal employee's also live in the space. Three meals a day are provided with fresh foods from the farm. The crew and guests eat together keeping with the family style, home cooked meals.

A range of activities are offered during the stay. Fishing, hiking, hayrides, swimming, tennis, volleyball, star-gazing, bonfires and outdoor movies are a few day/night offerings. The farm provides hands-on activities with the animals including milking goats and shearing sheep. Tractor rides are available during planting and harvesting seasons. The event/conference center hosts seminars, conferences and dances open to both guests and the public. Cooking classes include produce off the farm, gardens and greenhouse and teach how to use the ingredients nutritionally. Courses range from weekly baking sessions for outside visitors and evening cooking gatherings on date-night Friday.

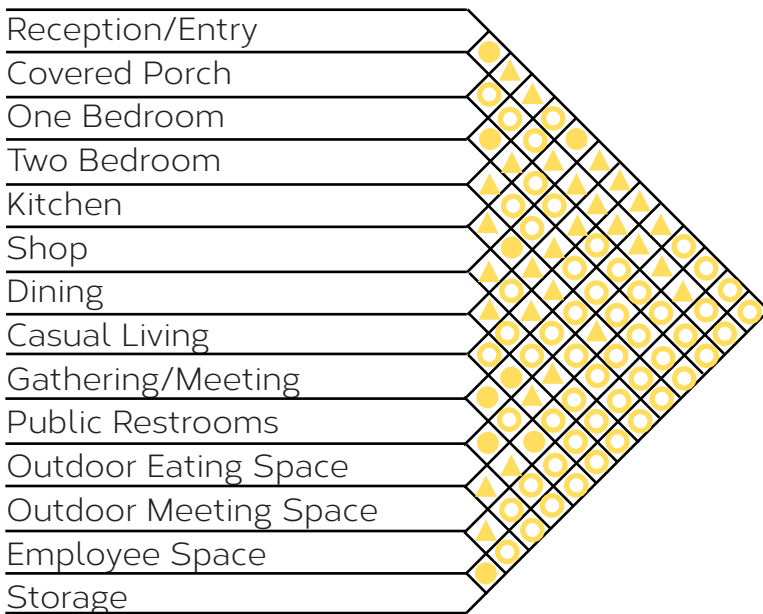
SPACES	DAY USE	NIGHT USE	PUBLIC	PRIVATE	STAFF	VISITORS
Garage - Storage	●			●	●	
Bunk House - Activity	●	●	●		●	●
Farmhouse - Living	●	●	●			●
Barn	●	●		●	●	●
Granary - Lodge	●	●	●			●
Cabins	●	●		●		●
Greenhouse	●			●	●	
Outdoor Gathering	●	●	●		●	●
Ag Equipment Storage	●			●	●	
Animal Barn	●	●		●	●	●

#### SUMMARY

All buildings are used extensively during daytime hours. However, after 7-8 PM, the Garage, Bunk House, Greenhouse, Animal Barn and Ag Equipment buildings can be closed until the next morning. The public and private areas of the farm are relatively opposite. But the Animal Barn is a shared area for private care and public viewing. All staff except visiting professors and seasonal workers live off site. Seasonal workers care for structures, maintenance, chores etc. under the supervision of staff.

- Strong Connection
- No Connection Needed
- ▲ Close or Accessible

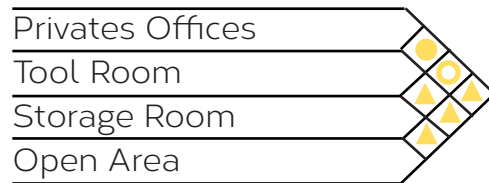
### LODGE



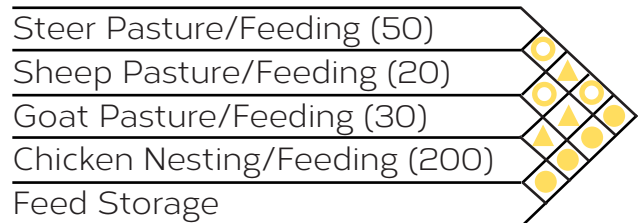
### CABINS



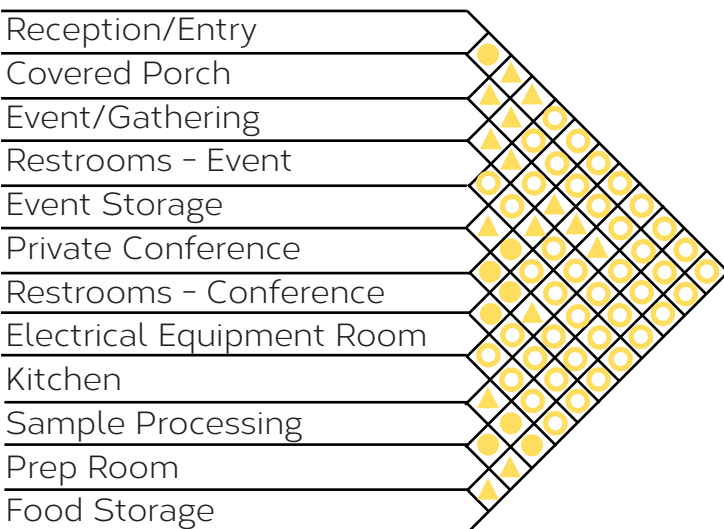
### AG EQUIPMENT BARN



### ANIMAL BARN/PASTURE



### PUBLIC







Farmhouse Front Porch View



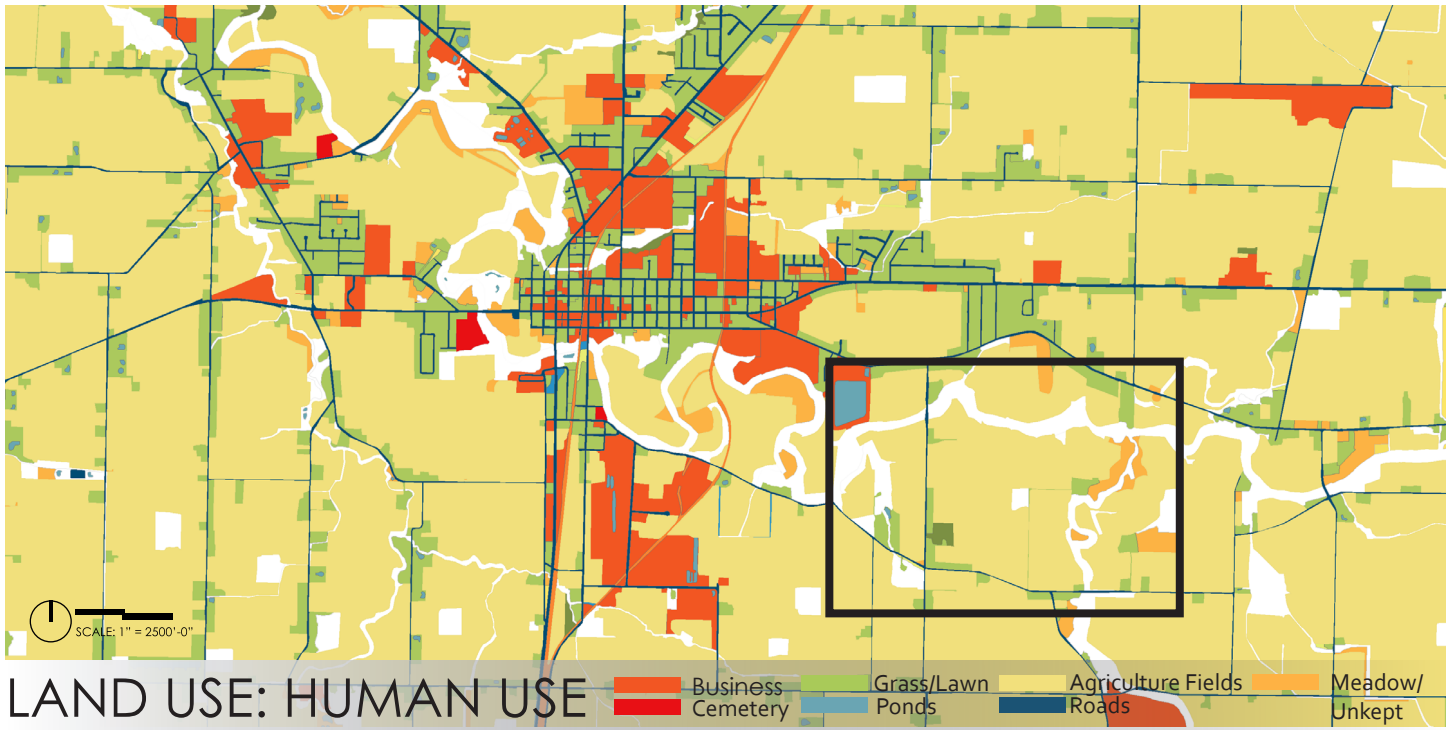
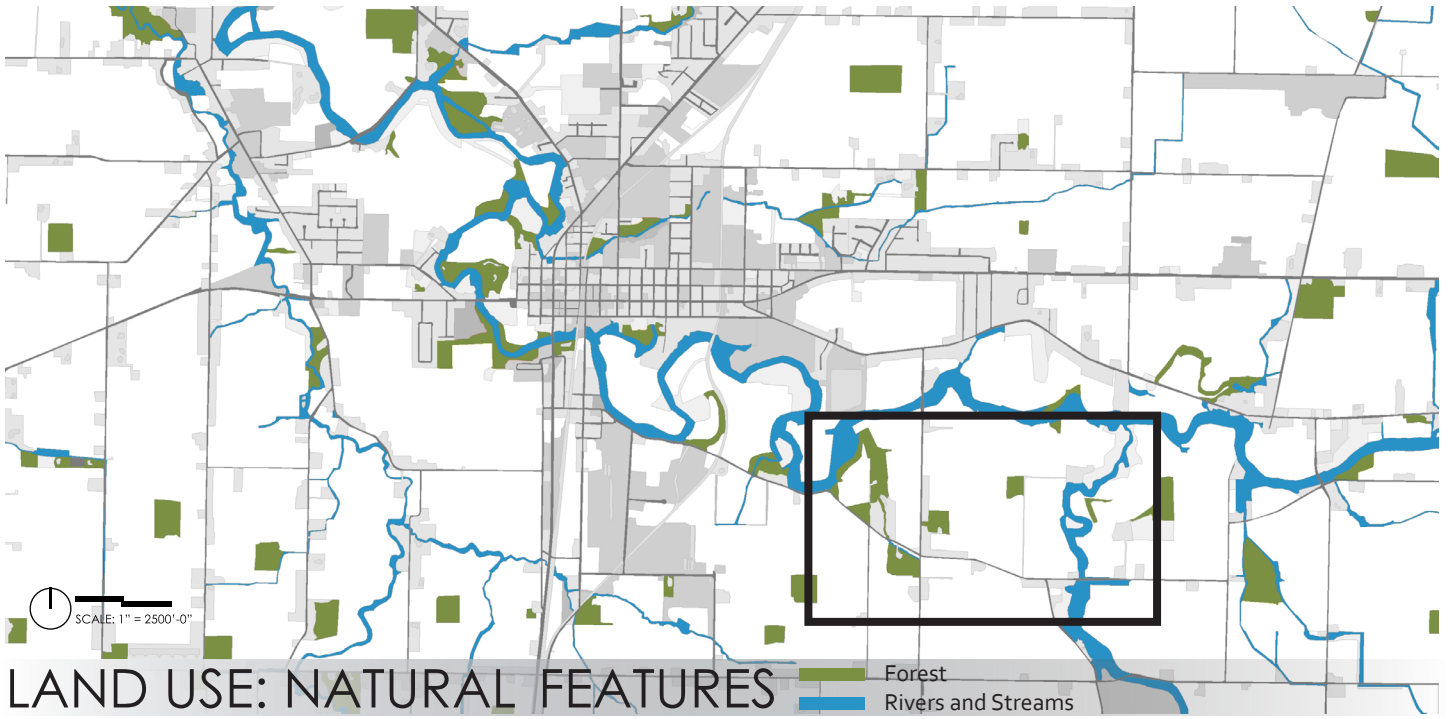


# Site Analysis

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# Wetland Suitability Rankings



Land Use

Flood Plan

Soil

Distance to Water

Colors: Dark.....Light

Ranks: 1.....4

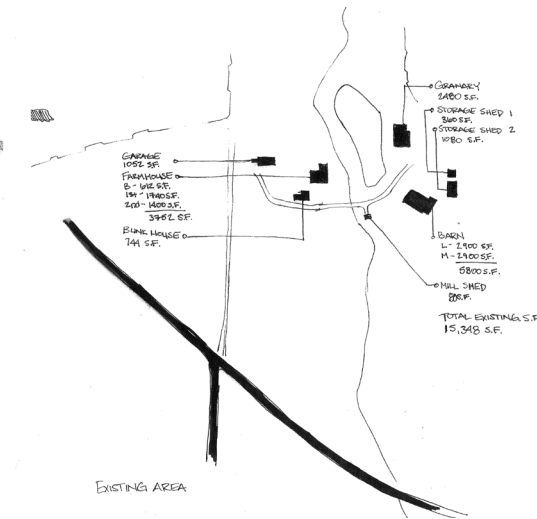
Once each data set is accurately ranked, I used the analysis tool called intersect to combine all four data sets. ArcMap divides and ranks new polygons based on the combined totals of the previous data sets. The final wetland analysis shown below suggests wetland locations to be near the Blanchard River and along low lying areas. Current drainage tiles will be removed to hold water on-site and restore the land to its native ecology.



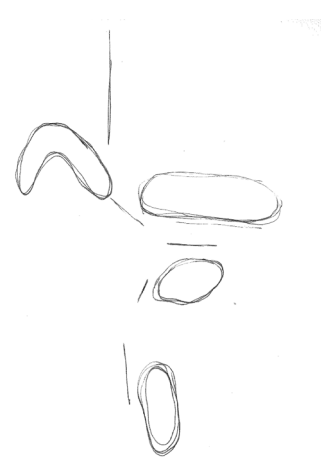




Site: Figure/Ground

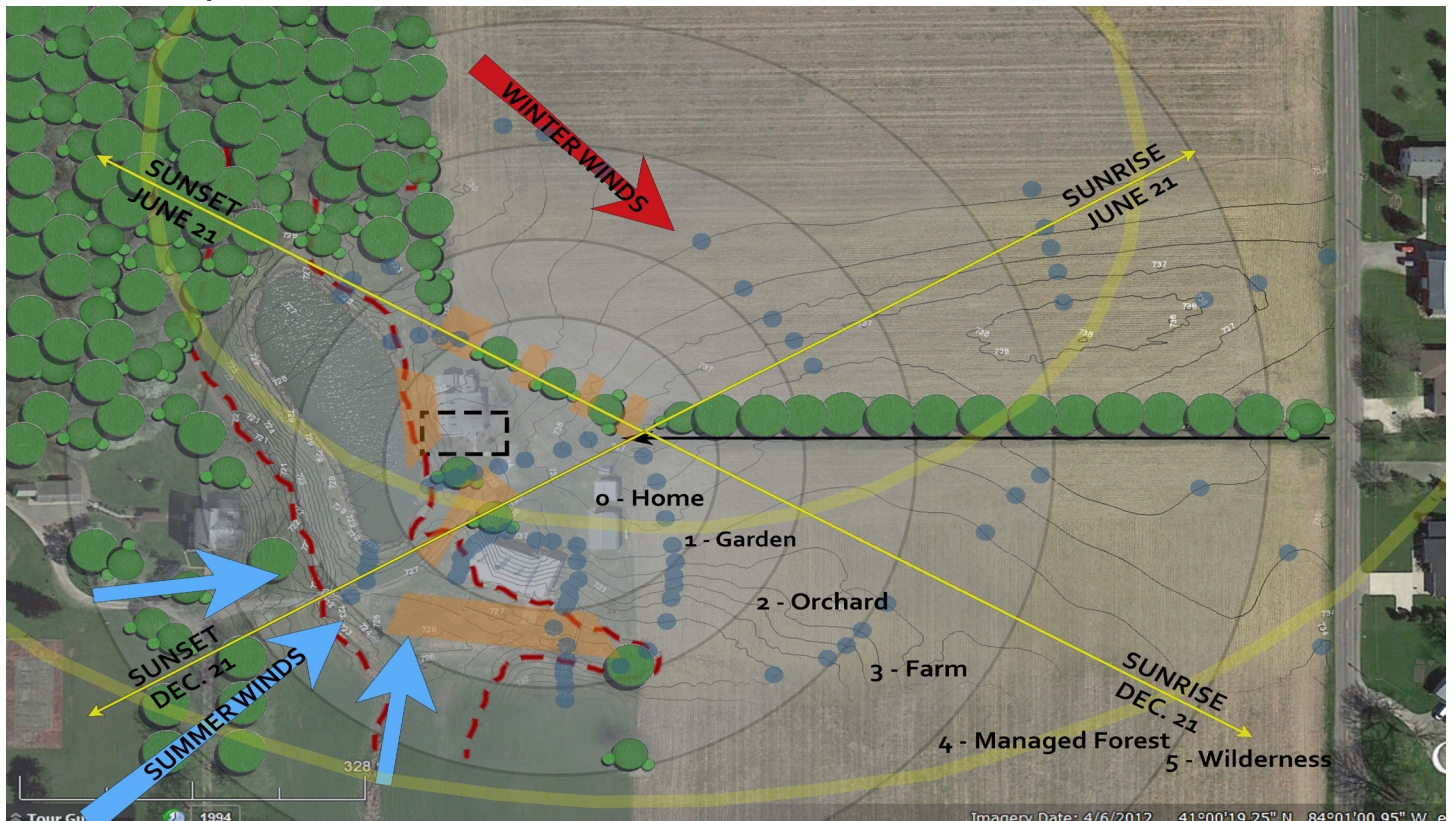


Building Area



Site: Moments

## Site Analysis

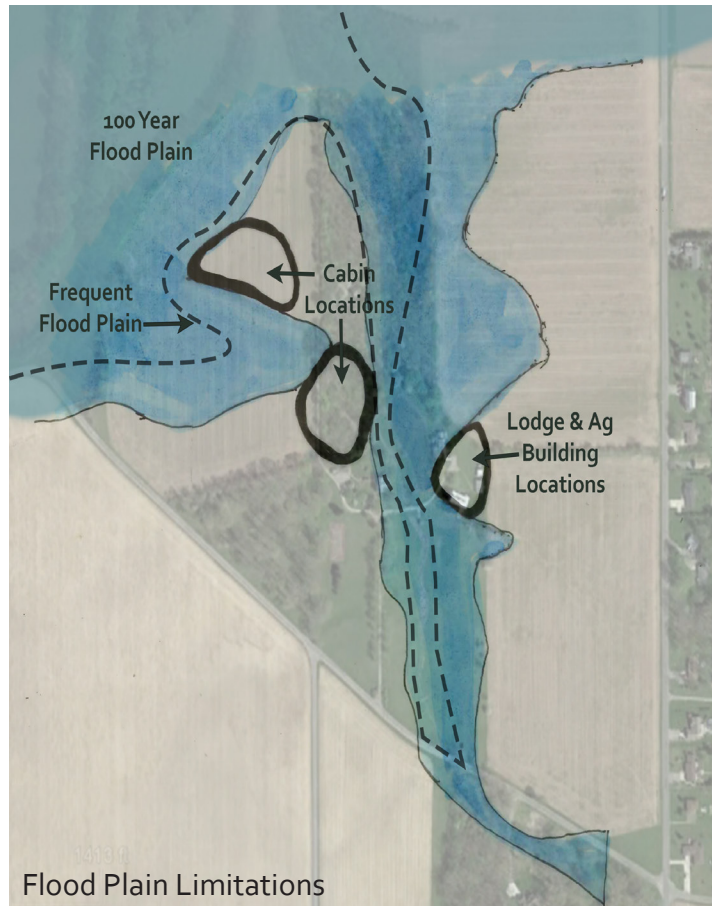




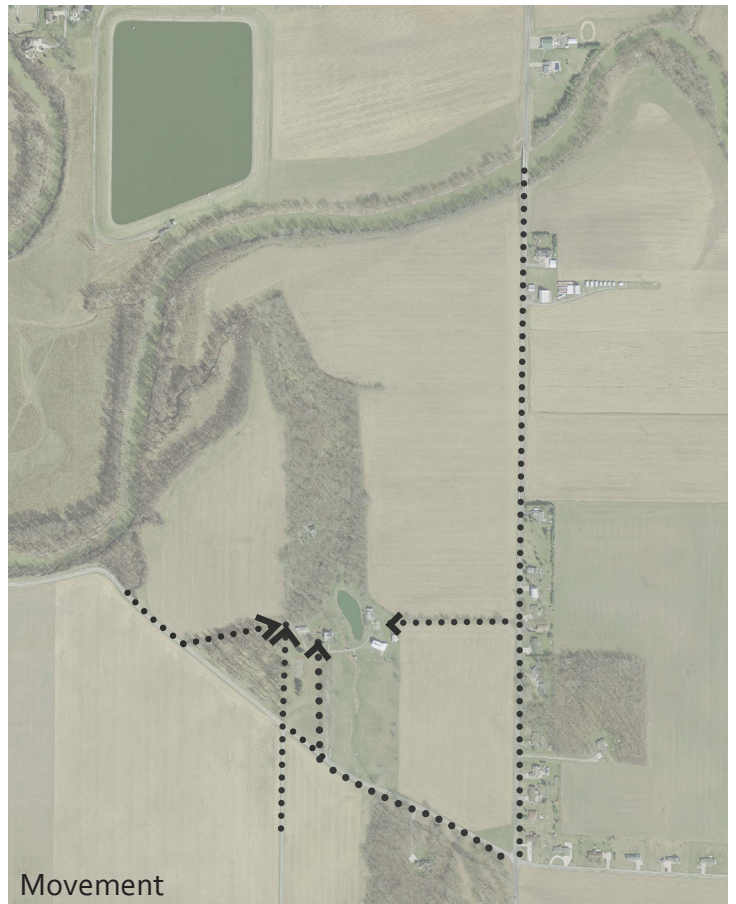
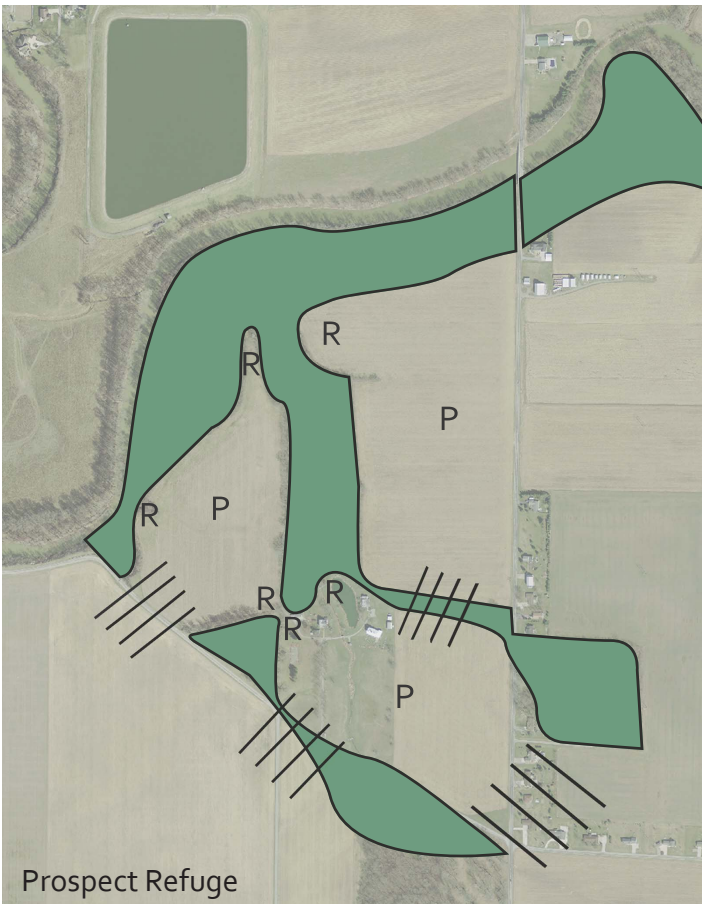
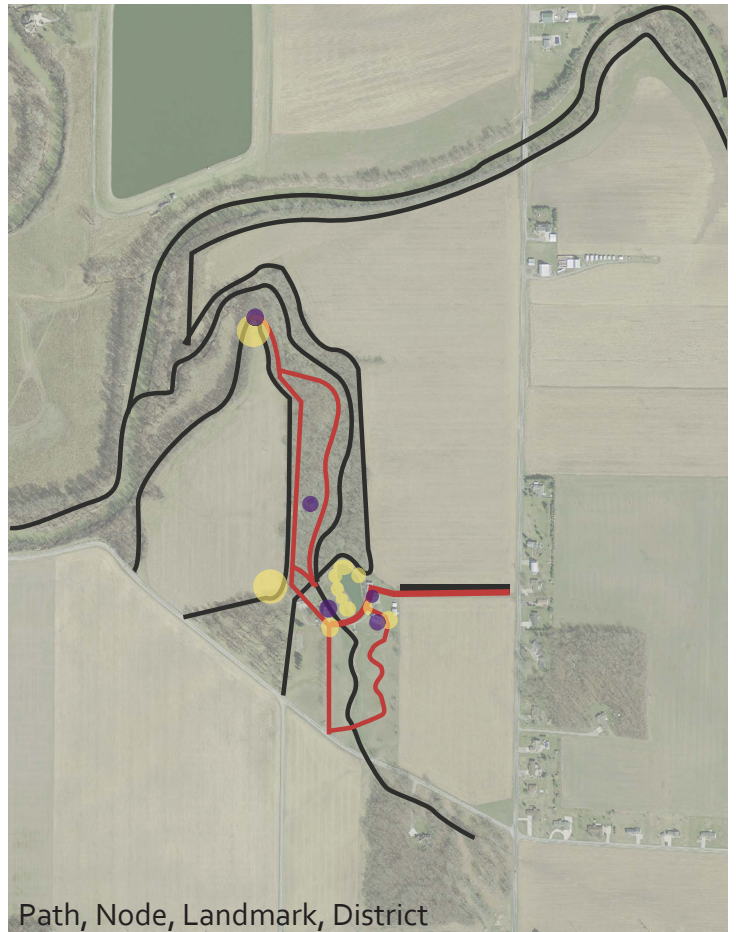
# Building Location Analysis



Views



Flood Plain Limitations







Blanchard River

Proposed Forest

Existing Agriculture

Proposed Meadow

Proposed Wetland

Proposed Wetland

Proposed Pasture

Proposed Forest

Existing Agriculture - Pasture



Existing Meadow

### Area Plan

SCALE: 1" = 80'

#### Key

- A. Existing Farmhouse - Director's Residence
- B. Existing Bunk House - Office and Check-In
- C. Existing Garage - Workshop and Garage
- D. Proposed Cabins
- E. Existing Historical Cabin - Workshop and Gathering
- F. Existing Historical Cabin - Gathering Place
- G. Existing Barn - Event Center and Seasonal Restaurant
- H. Existing Tool Shed - Storage
- I. Proposed Store - Offices and Sales
- J. Proposed Granary - Greenhouse and Meeting Space
- K. Proposed Lodge - Eat, Sleep, Play and Gather
- L. Proposed Equipment Barn
- M. Proposed Animal Barn

-  Proposed Fence
-  Proposed Walking Trail

Road 8

Road K-6

Road L-9



# Finals Drawings

## Contents

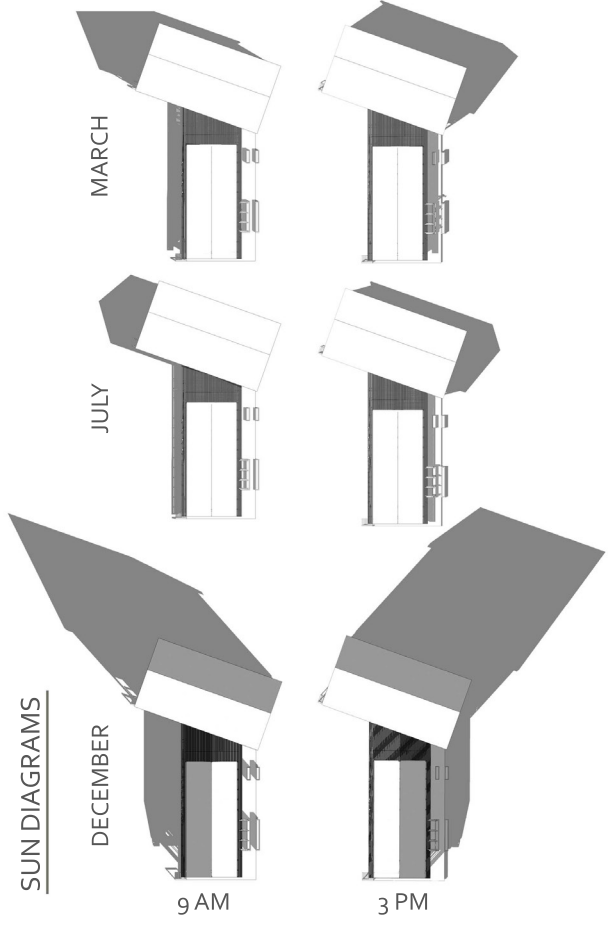
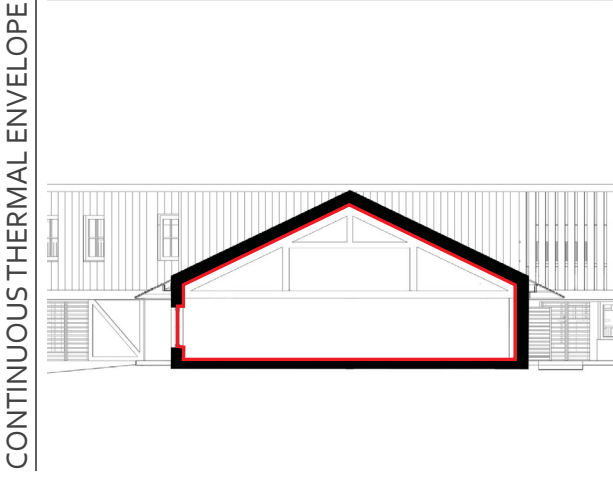
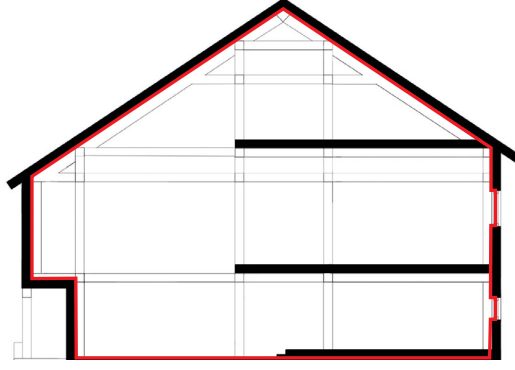
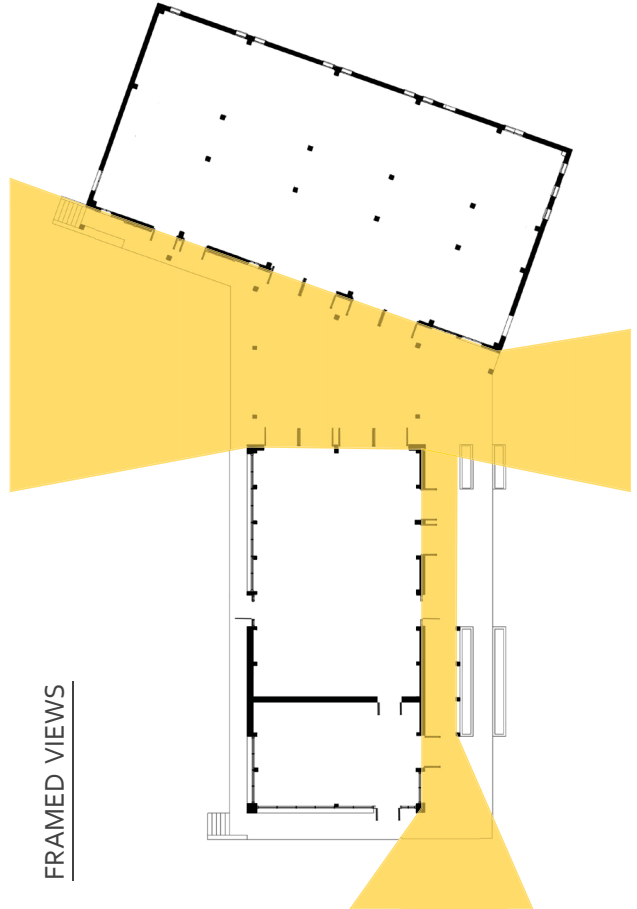
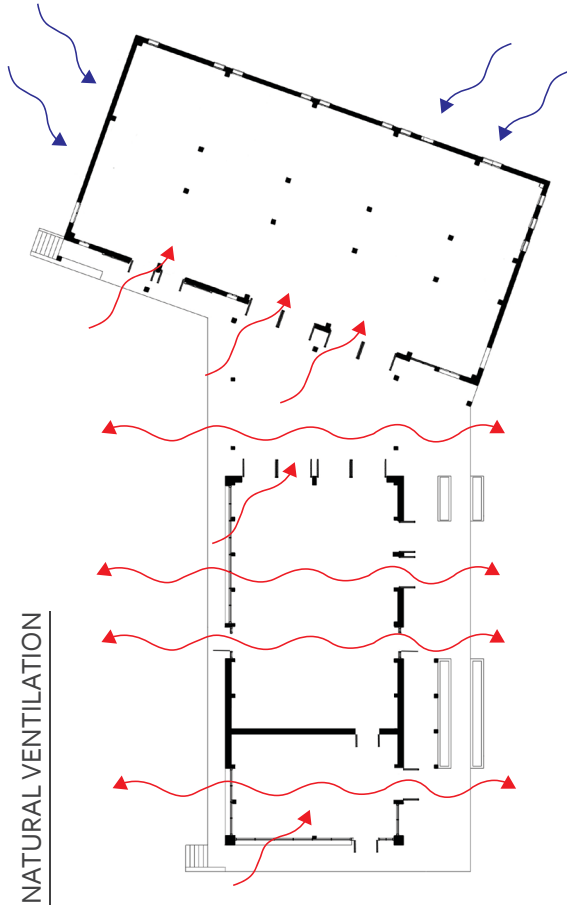
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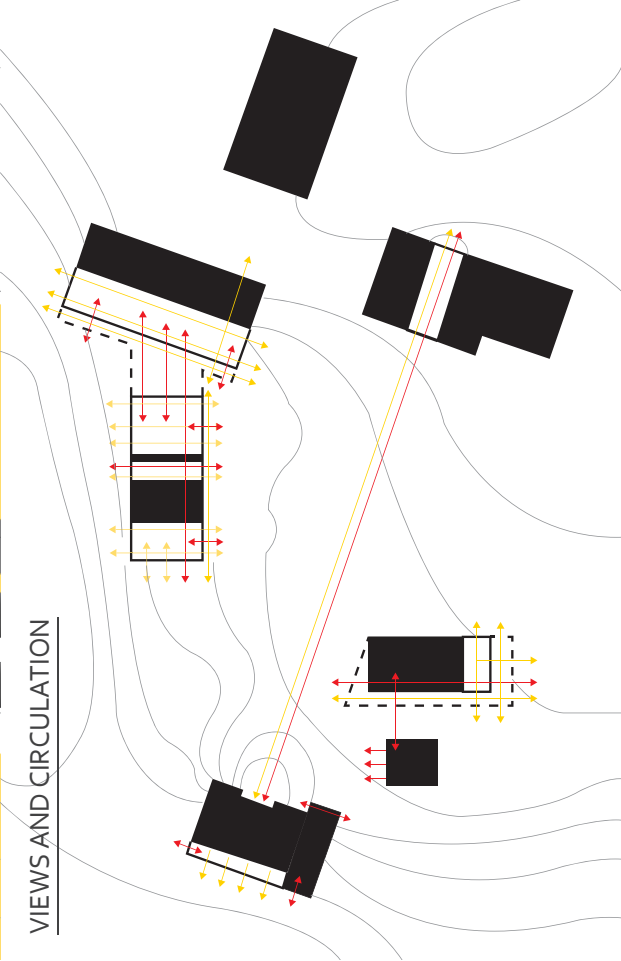
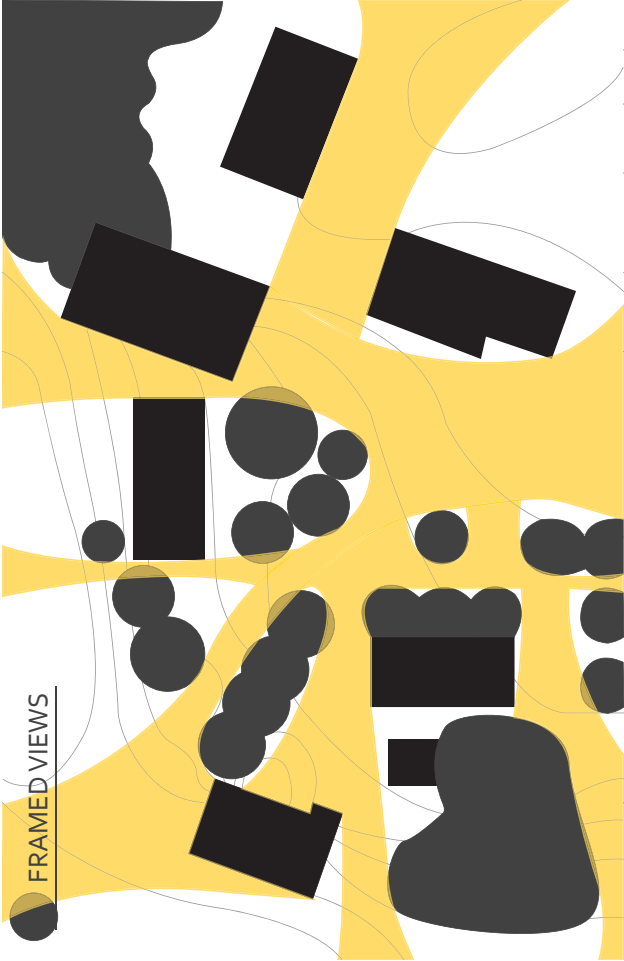
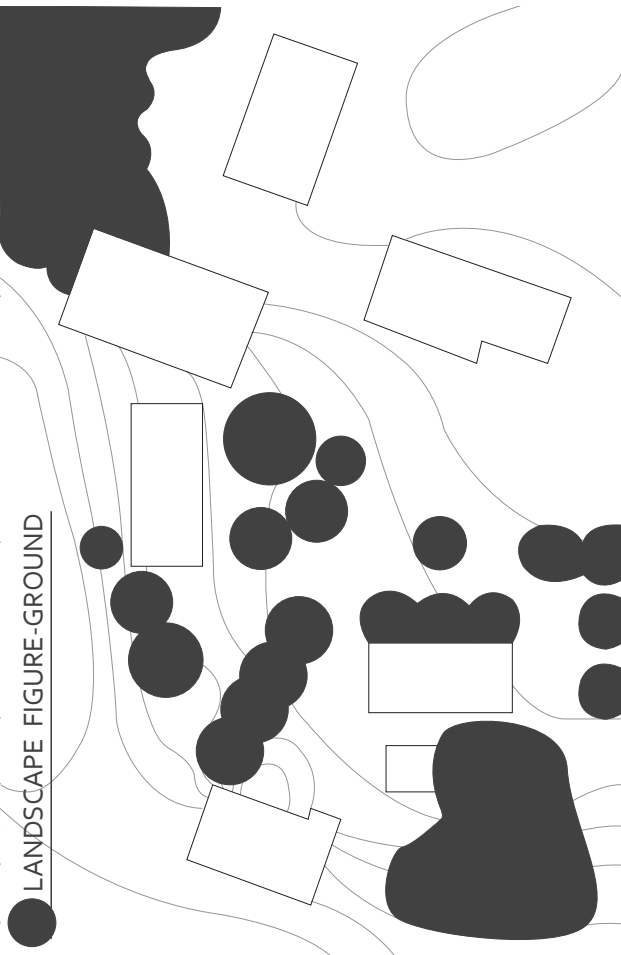
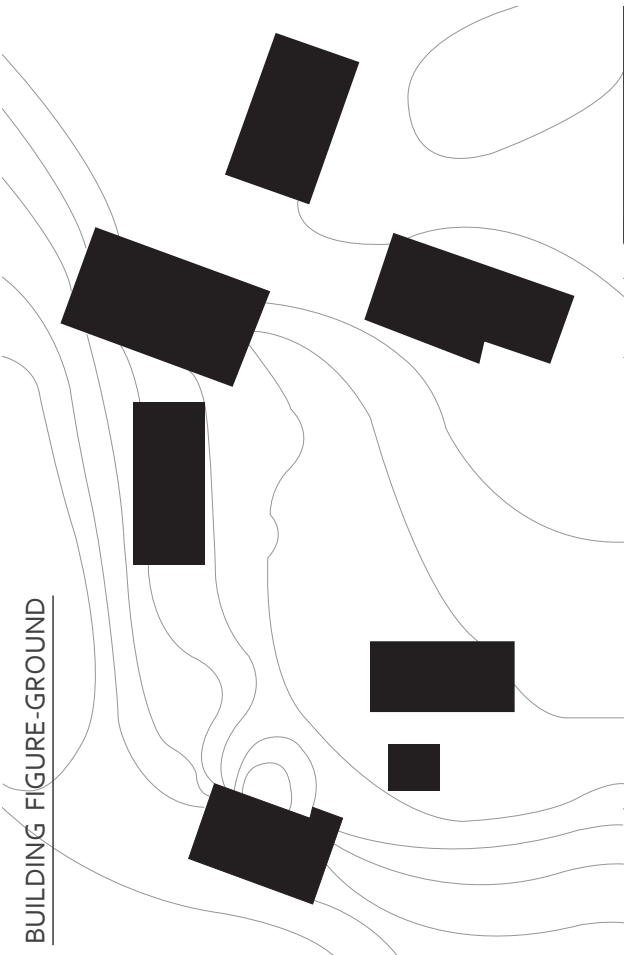










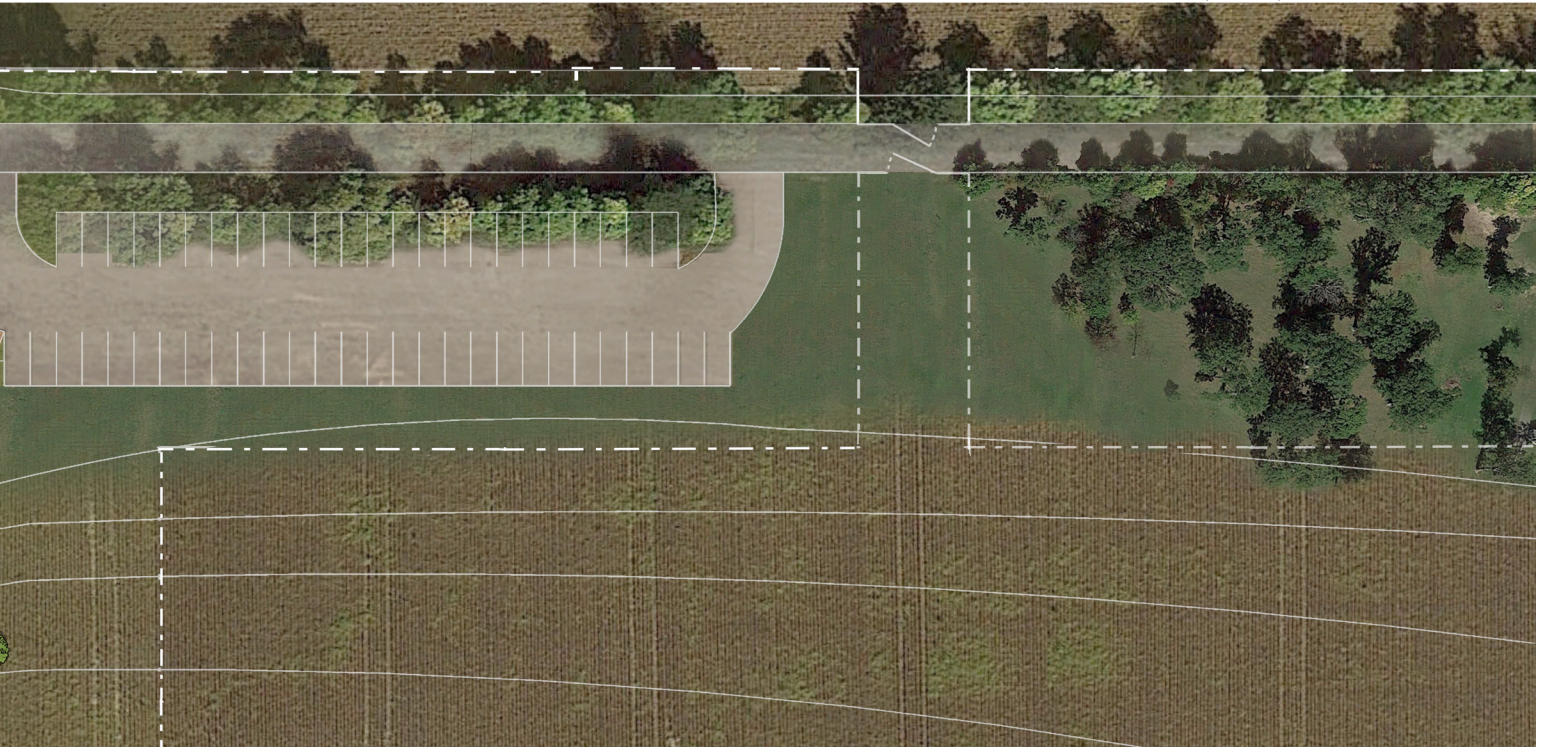
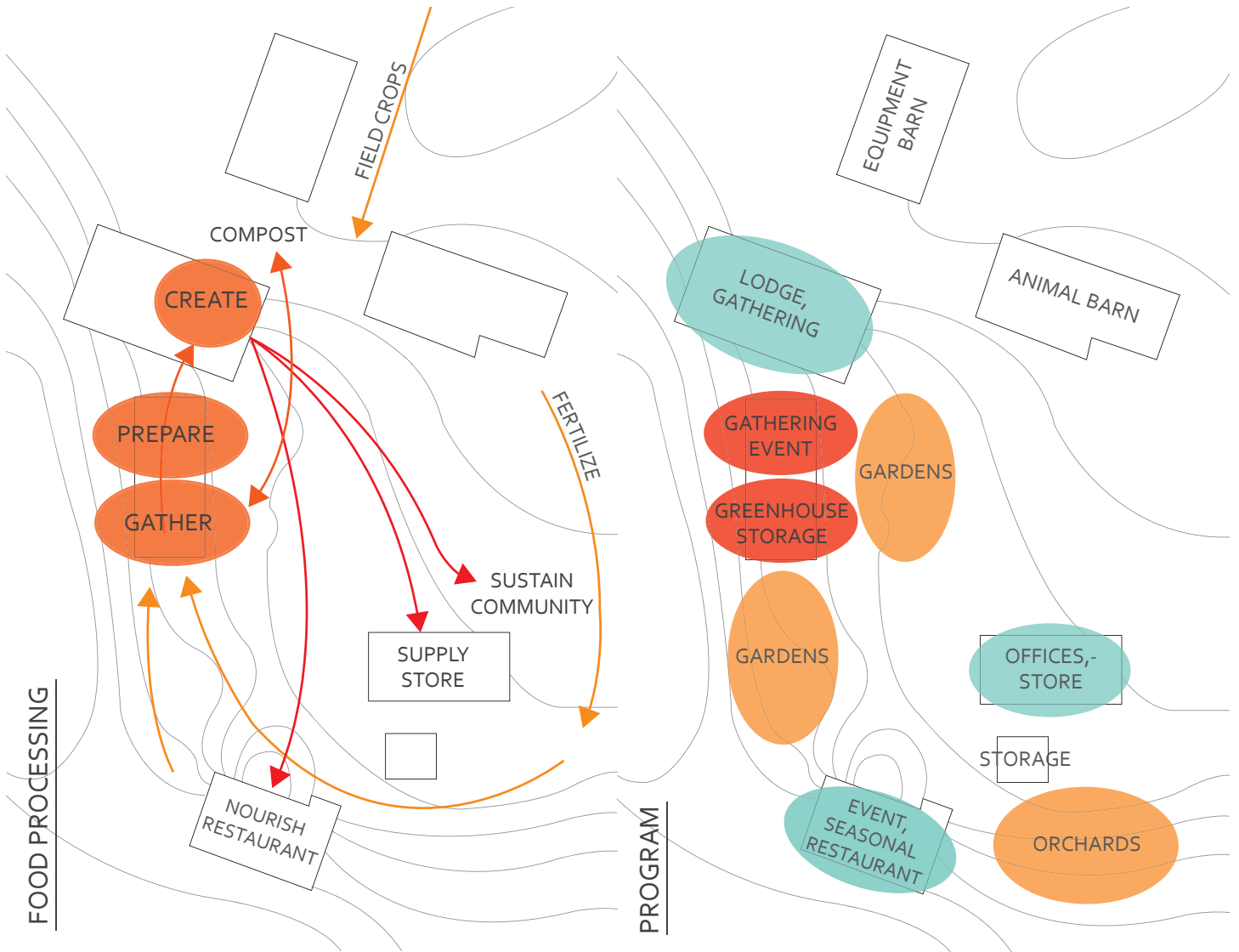


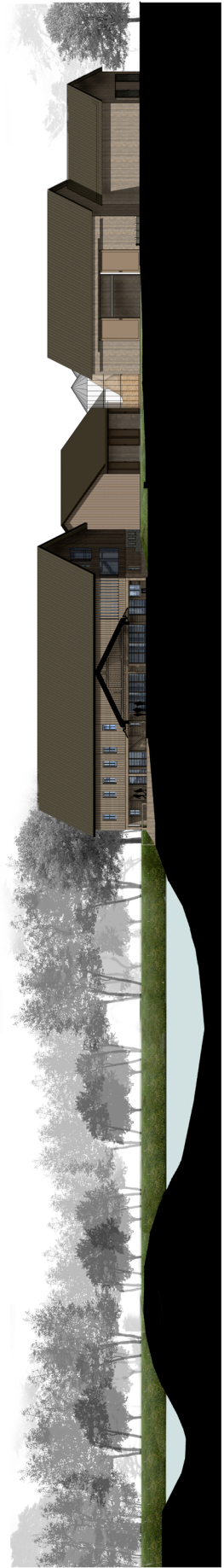
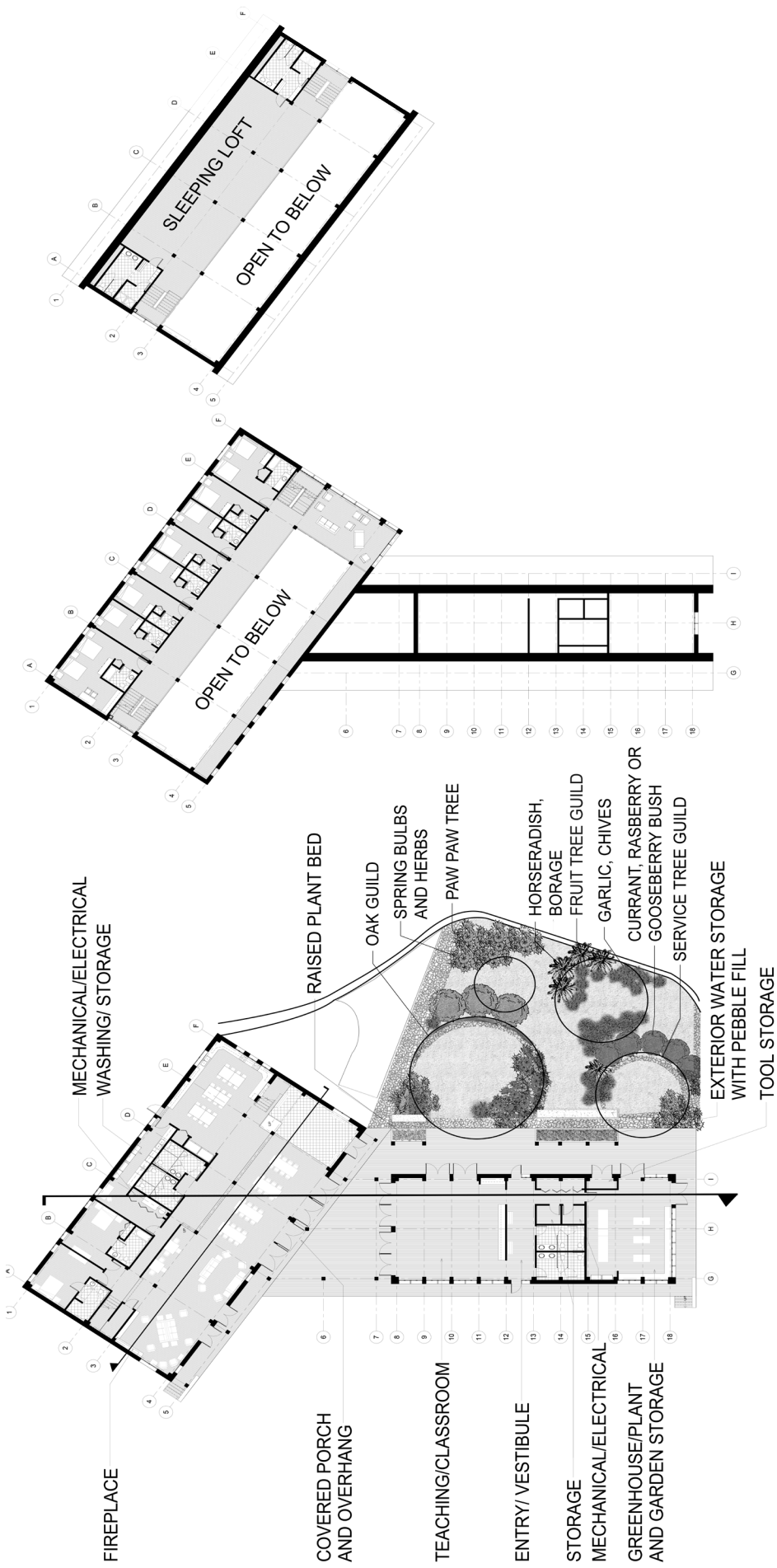




Site Plan  
45







Floor Plans and Site Section  
47







West Elevation



East Elevation

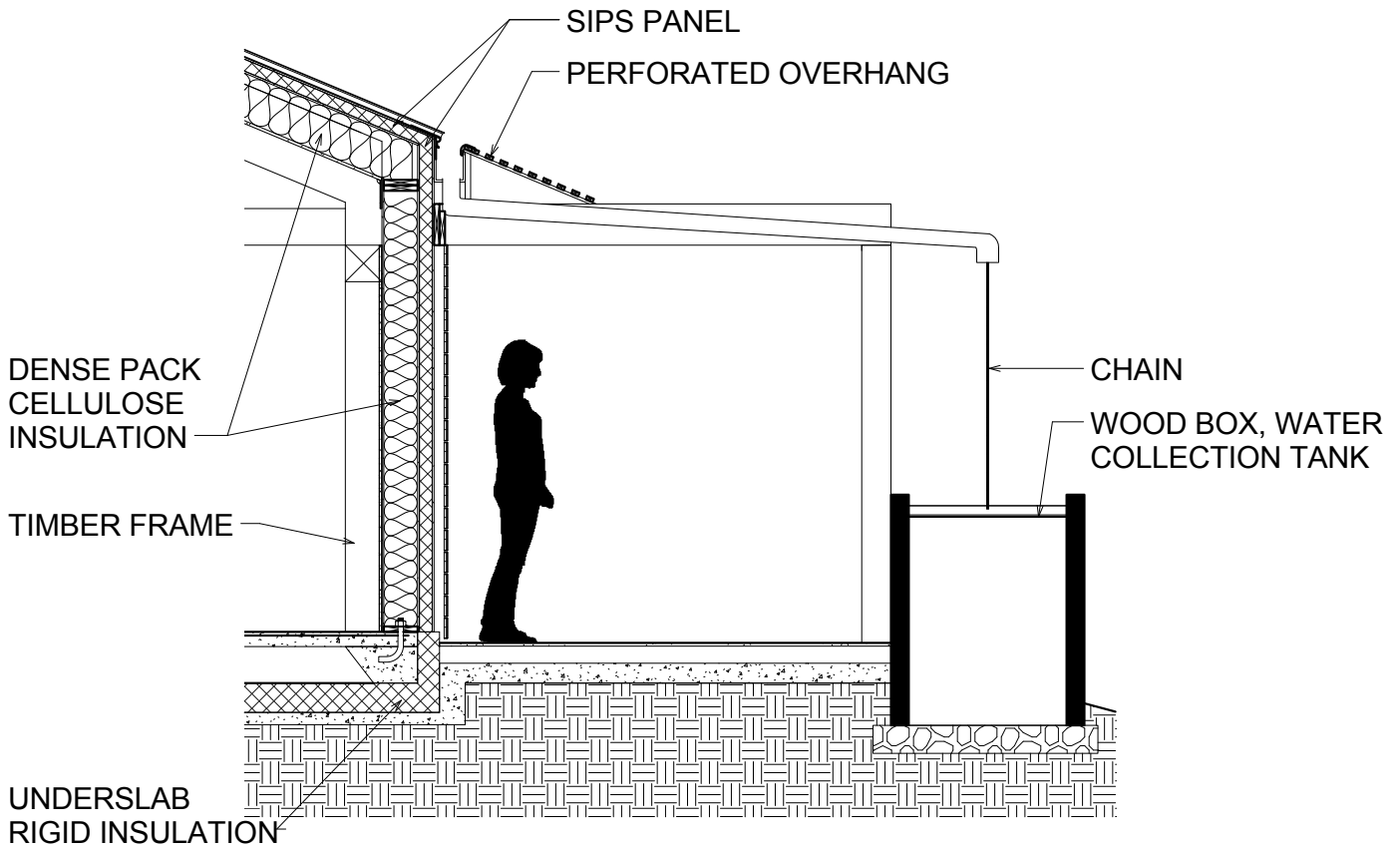


South Elevation

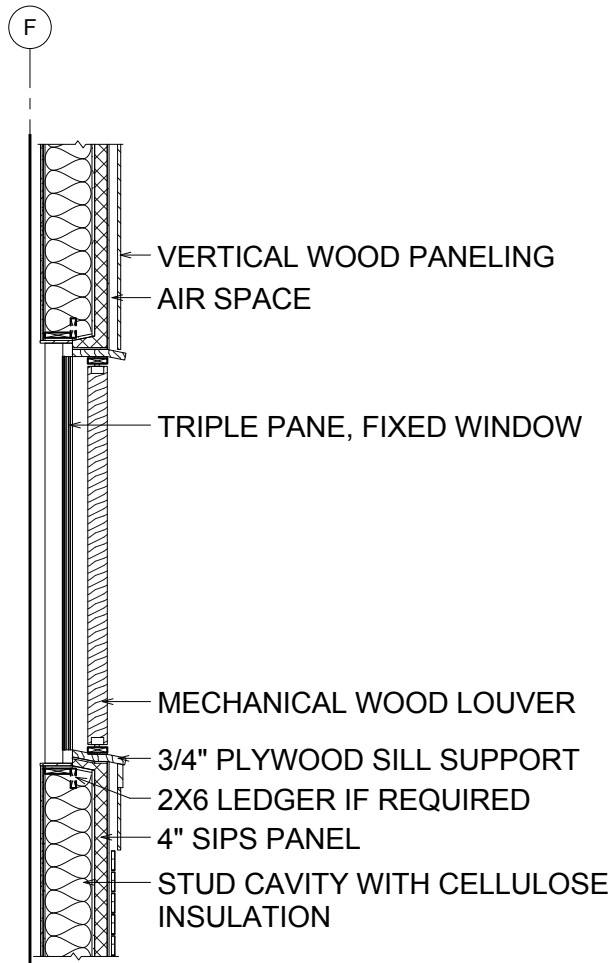


North Elevation





Granary Wall and Deck Section



Lodge Louver/Wall Section

















