

CULTURAL HEALING

by

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Megan Nicole Zentgraf

October, 2008

DEDICATION

I would like to dedicate this book to all those who stood by me from the beginning until the end. My family and friends who helped me along the way by giving me support and advise. I would also like to thank my advisers for staying with me throughout the whole process.

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ABSTRACT

“Since the stone age man has searched for a comfortable house in a safe place.”

Alfred Caldwell

A residence should be a place where one feels safe, and should want to go at the end of the day. People living in low-income situations have a more difficult time than most at achieving peace of mind in a home due to a constant concern of bills and the stresses of an unstable socio-cultural environment. Low income housing projects frequently create high crime, violence, and a feeling of social, cultural and economic entrapment. This project searches for a solution to these problems through the use of pragmatism. The project will combine a mix of rent supplemented and market rate housing. This approach can create a safe socio-cultural environment. The project will be a place where underprivileged people can live without the inherent qualities of isolation and neglect.

Home is so sad. It stays as it was left,
Shaped to the comfort of the last to go
As if to win then back. Instead, bereft
Of anyone to please, it withers so,
Having no heart to put aside the theft
And turn again to what it started as,
A joyous shot at how things ought to be,
Long fallen wide. You can see how it was:
Look at the pictures and the cutlery.
The music in the piano stool. That vase.

- Philip Larkin



01

1. Defining low-income

“Low-income” can be described both statistically and socially. In the San Francisco Bay area, people make 50 to 80 percent of the average county income can be classified low-income. According to the Census Bureau between 25 to 35 percent of families in the North Beach area of San Francisco are below the poverty line by making an average income between 15,000 to 30,000 dollars a year.¹ These percentages give only a slight insight into what it means to be low income. Being low income can mean experiencing many prejudices in every day environments. The stresses of life like paying bills, wondering if there will be heat and if the rent can be paid are often dealt with on a daily basis.

Many families and people constantly fear not being able to afford rent, which results in homelessness. According to Sam Davis, author of *The Architecture of Affordable Housing*, “The increasing number of homeless families on our nation’s streets is the most dramatic manifestation of the housing crisis.”² Many families live with this crisis, and no light at the end of the tunnel. This is their future as they know it. Many people haven’t known any success stories; therefore, in most cases



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¹ www.factfinder.census.gov
² *The Architecture of Affordable Housing*, Sam Davis, University of California press, 1995, 1

they are not hopeful that their experience will be any different. A person can feel small and insignificant in these situations, not knowing what to do about money. There are always choices to be made both financially and socially, and when money is tight sometimes the same choices others can make easily are extremely difficult. For example, in an unsafe neighborhood, where is it appropriate for children to play? Where is a safe place to purchase produce? Where is it safe to walk home after dark?

Certain attributes are generally associated with people living in the low-income bracket. The poor are often seen as violent and under educated because they live in slums. Many of the Government funded institutional buildings projects help contribute to this stereotype. These projects contribute to the stereotypical atmosphere and therefore, help create negative connotations. Stereotypes drive perception and are often misleading. Buildings should be designed with quality that matches budget. The environment in which a person lives affects the stereotype of the individual. If a person lives in a violent, under educated environment, simply placing them in a new environment by being exposed to people of more privileged lifestyles. This can be done by introducing them into a mixed-income situation.



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05

Our environment controls how we perceive the world. It is difficult for a person who is not surrounded by great opportunities to believe they can achieve great things in our society. This runs contrary to an arguable statement in Ronald Reagan's State of the Union address to Congress, "Anything is possible in America if we have the faith, the will, and the heart." In response to this powerful statement, Jay MacLeod, in his book *Ain't No Makin' It*, describes several young people from a low-income housing development called Claredon Heights "who have grown up in households where their parents and older siblings are under educated, unemployed, or imprisoned, that Reagan's words ring hollow. For them the American dream, far from being a genuine prospect, is not even a dream. It is a hallucination."³ This concept is formed by the understanding of the surroundings these people are growing up in. It's not that they are incapable of achieving their hopes and dreams, but that their environment has taught them otherwise.

Many "projects" or low income housing developments become communities in and of themselves. People are generally associated with where they live, whether it is the building itself or a neighborhood. Therefore, a neighborhood that is known for being "tough" and run by gangs, people may act violent or aggressively.



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If a person living in a bad situation is around many elements that create feelings of un-motivation, there comes a responsibility for others in society to create that sense of motivation for the person. In the case of Jay MacLeod and the students he worked with, he was able to create a sense of strong support. This sense of support was able to create success with these students as they went on to go to college. There is a need for stability in a child's life, especially if there are broken homes, or single parents and large families. Children often need someone outside of school for support, as an external source.⁴ Following are two examples of low-income situations.

Terrell Pough

An understanding of the socio-cultural situation is important to gain insights into the lives of the underprivileged. The December 5, 2005, issues of *People* magazine contained

³ *Ain't No Makin It*, Jay MacLeod, Westview press, Boulder Colorado, 1987, 1995, 4

⁴ *Ain't No Makin It*, Jay MacLeod, Westview press, Boulder Colorado, 1987, 1995, 4





an article about a single father in inner-city Philadelphia struggling to make a better life for his daughter and himself when he was tragically killed in a random mugging. Terrell Pough was eighteen years old and raising his daughter, Diamond, on his own after winning sole custody of her from her mother, his ex-girlfriend. Terrell was studying carpentry and was working hard to achieve a measure of success. He was striving to purchase a house for his daughter and himself. He worked very hard to allow his small family to have the best that he could afford.

On November 17, 2005, Terrell was expected to bring Diamond from his grandmother's to his mother's. He never arrived. It was not typical for Terrell to be late or to miss picking up his daughter. His mother was worried because Terrell did not arrive. He had been shot and killed on the sidewalk outside of his home in a seemingly random act of violence. The impact upon Pough's daughter will be great. Her life will be drastically different.

The violence and high crime rate in the neighborhood had a large impact on why Terrell wanted a safer area to live. He wanted his daughter removed from situations like the one that resulted in his death. Terrell wanted a better life and was working hard to achieve it. The environment around us shapes our everyday lives; it can be cause for us to be trusting and kind, or it can cause us to be wary

and apprehensive. Our environment teaches us to react according to the situations that surround us. Now, because of this seemingly random act of violence, perpetuated in just such an unhealthy environment, Diamond will no longer have a father to help her learn and to guide her as she grows up.

A Childhood friend

People want a better place to live if they reside in a violent, aesthetically unappealing area. Growing up I had several friends who were living in trailer homes with their single parents, barely scraping by. One friend in particular, who shall be called R so as to protect her identity, had a home in a trailer court. R lived in a small trailer with about 288 square feet and a small particle board extension added for storage. Any available space was filled with the few possessions they owned, leaving only a small space to move around due to the clutter. The bedrooms were similar to those in camping trailers. There were only partial walls to separate the spaces, providing no real privacy. I always thought that they deserved a better place to live, and R always wanted a better place to live. No one should be forced to live in a place simply because of his or her income.

The memories of my friend R and her home have remained with me, seeing what she had to endure





each and every day. She is now an adult, and has lived in better quality residences each time she moved, and she still tells me to this day that she never again wants to live in a place like the one where she grew up. She wants to live in a place where there are no value judgements based on location. This can transpire for someone like R or Terrell if they reside in a place where they co-exist with people of different incomes. The same idea of America being a successful melting pot can be successful in a housing complex. By having people who earn a moderate to high income living in the same building as people who live on a low-income could be this melting pot.

Based on the definition of low-income as living in a non-secure and possibly dangerous neighborhood, a mixed-income complex could create the type of new environment needed for an improved atmosphere. This co-existence of a diversity of people allows those who may not previously have been exposed to success stories a chance to see success around them through the more privileged people and therefore thrive to achieve a measure of success themselves. Stories like those of Terrell Pough and my friend R are guiding principles I will use in designing what is appropriate in a mixed-income housing project. The relationship of the rooms to one another will be a key element, by determining what space proximities are appropriate. This methodology

would allow the designer to design a more efficient and aesthetically appealing project.





2. Issues of low-income building

The two major issues that must be addressed in the design of low-income housing are securing financing and the design. The financial consideration includes the funding pre-design of the building, the site location, and funding for the maintenance and post construction. The design stage involves resolving the complex social issues and consideration of the environment that is created. Generally many different types of professionals are involved in designing, building, and managing affordable or mixed income housing developments. Both profit and nonprofit groups organize these projects. A key element to any housing project is its inhabitants, and providing them with an environment that is a safe and well designed.

There are companies that work with these housing projects including HomeWord of Missoula. They help with the fund raising process before the design starts through to the follow up meetings with the residents after the building is occupied. These types of organizations determine the feasibility, including information on zoning, allowance and density of the surrounding area. They determine whether there are any variances and the number of units that will be needed. They also consider the general site conditions, such as the size and the shape of the land, which can be difficult because many of the sites available



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for affordable housing are usually awkward in shape, or they are unwanted space, making efficient layouts difficult.

HomeWord first calculates the number of units that can fit into the space given, to see if the project is feasible. They then analyze the surrounding neighborhoods to determine what amenities are in proximity to the site, such as grocery stores, bus stops, schools and churches. After this analysis, if the site is deemed acceptable, they will determine the layout of the design. There is generally a common room for all residences, a laundry facility, and a workshop for maintenance on personal possessions. There is then a community charrette with current residents of the neighborhood to finalize the design and the unique program requirements. The charrette determines whether there will be elements such as community gardens and the amount of open space provided. This is done so that the neighborhood is directly involved with the project and is more likely to care about the final product and the upkeep after it has been built.

After the charrette, the team from HomeWord goes back to the drawing board. More fund raising follows, along with the application for federal grants, typical cost lending and permanent mortgage lending. HomeWord tries to achieve many goals such as the idea of tenants owning long term and applying



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energy efficient technologies that make the building “green.” Green technologies would include elements such as photovoltaic low-E windows and low VOC paints. After the building is completed, regular resident meetings are conducted to discuss the efficiency of the building’s functionality. From these they have found that certain user-friendly systems work well in these development, such as dual flush toilets. Their goal is to produce the highest efficiency for the size of the building , which will allow the residents to pay less for units that have highly durable materials and improved indoor quality. This company’s employees are involved on a personal level with each project during the design process and post-production, fully immersing themselves with the people.

Many companies that work on low-income housing developments try to stay involved with these projects on a personal level. A Bozeman developer, Dab Dabney, has had much experience with low-income housing, including owning such a complex. By being involved Dab has found that the success of the project depends on its social construction. The long-term social management of the building is just as important as the initial development that goes into the project.

Funding is a crucial part of any low or mixed-income housing project. Dab secures his



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funding by relying on the Tax Credit Program, available to private companies, which they can in turn use as a way to invest in the project. By using these methods Dab is able to secure 75 percent of his budget, and the other 25 percent comes from lenders.

The general goal for all low-income projects is to create a place where people do not immediately associate the building as affordable housing. Dab states that if it is a secure and aesthetically appealing space to which the resident can become connected with, than one is more likely to take care of it. If there is more money given or loaned for such projects, charging lower rents are more feasible. No matter the budget, design is important. As Dab states, the more people that are engaged with a building the more likely they are to take care of it, this is when social management becomes highly important. If the building is not properly maintained there could be poor results. As stated before, many people living in low-income situations who are coming to these complexes have been living in dangerous environments.

A large number of people living in a low-income development can create a slum-like atmosphere if it is not properly managed. Dab states that, “simply having past a certain number of low-income people in one place, doesn’t work.” This is due to the lack of ability to control and keep tabs on a vast number of people. The idea of introducing people who live



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below the poverty line living with people who are more privileged can mean having a strict level of control to keep in order. This level of control is the result of a type of neighborhood watch. The tenants are included in their own security through the setting up of a neighborhood watch.

Neighborhood politics are an inherent factor that must be addressed in low-income housing. Issues with the surrounding neighborhood tend to rise due to the term 'slum' generally associated with low-income housing. There are two main elements that can create a good affordable housing complex. The first is to have a physically appealing building, the second is to manage the people well and assure their safety by taking certain precautions. This means that everyone in the complex must adhere to the idea that any issue with violence or wrongdoing will be reported to the authorities. The operation and personal involvement with the people through their security from the neighborhood watch is just as important as the appearance of the building.

Mixed-income projects base similar principles to that of companies like HomeWord and Dab Dabney's. Although these organizations focus on low-income rather than mixed-income, similar elements that are considered are the surrounding neighborhood, the site, amenities in close proximity to the site and the idea of common spaces for residents. Such



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a project could take into consideration many of the comments made by Dab Dabney such as the ineffectiveness of having large numbers of people with low income, and a reason for designing mixed income housing rather than low-income housing so as not to create a mono-culture.





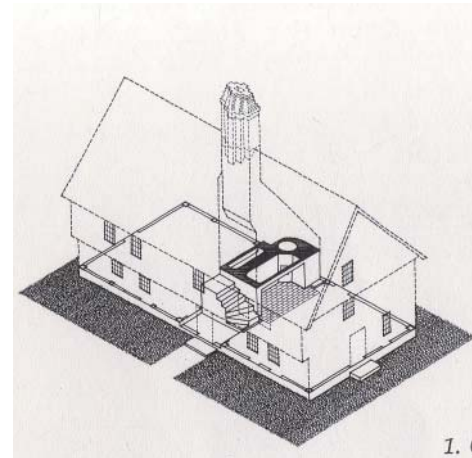
3. History of housing

Humans require two essential elements, food and shelter. Shelter provides protection from the elements. A well designed shelter can make dwelling more satisfying. A residence is more than a shelter. According to Renee Chow, in her book *Suburban Space*, “Dwelling should be considered as involving creative and complex acts. More than a sheltering of activities, it is a multifaceted phenomenon that brings together where we live and how we live, each informing and changing the other.”⁵ At one point in time, the design of a shelter was based on necessity. The organization was based upon the climate of the region. Stated in *The Place of Houses*, “Early houses, from around the 1600’s and 1700’s in New England, Virginia, South Carolina, Louisiana, and the Southwest show that in each region there was a preferred way of assembling rooms to make a house, and this way provided a loose framework of choice for each house builder.”⁶

The rooms themselves were initially separate and not an intertwining connection of space. Charles Moore, Gerard Allen and Conlyn Lyndon express in *The Place of Houses*, “Of almost equal durability, to



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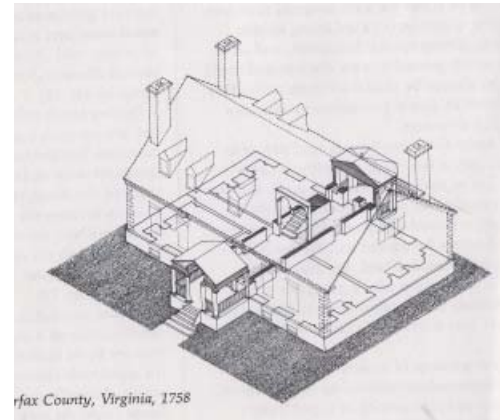
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⁵ *Suburban Space*. The Fabric of dwelling, Renee Y. Chow, University of California Press, 2002, 36

⁶ *The Place of Houses*, Charles Moore, Gerald Allen, Donlyn Lyndon, University of California press, 1974, 2000, 73

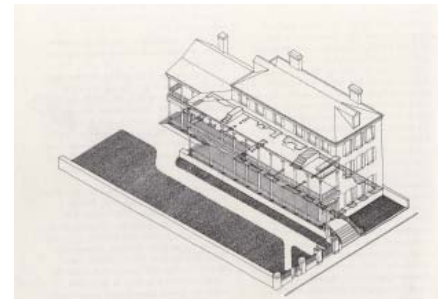
the location of the rooms, but not quite, has been the tradition that rooms must always be discrete and self-contained.”⁷ Throughout the years, the organization of rooms in residences has changed. The way in which dwellings were designed changed at the beginning of the 1900’s, partly due to Frank Lloyd Wright and his “Organic Architecture.”⁸ Organic Architecture is the original box design exploded into a more open plan creating spacial zones rather than individual rooms. Architects started to change the thought process behind the design of houses. They designed these new spatial zones, and the concept of individual rooms changed so that the residences was the sum of integrated spaces. They focused on the present rather than the past. Not only was the design of homes changed, but the time that people spent in their homes was drastically changed as electricity began to become standard in homes. However, because the lifestyles people were adapting, their lives at home changed, quite contrary to the traditional customs before the 1900’s.

Many trial and errors led to more proficient designs. The concept of public versus private began to be important. As is expressed in *The Place of Houses*, “The Modern movement sometimes

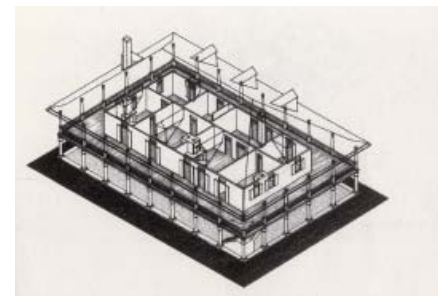


ifax County, Virginia, 1758

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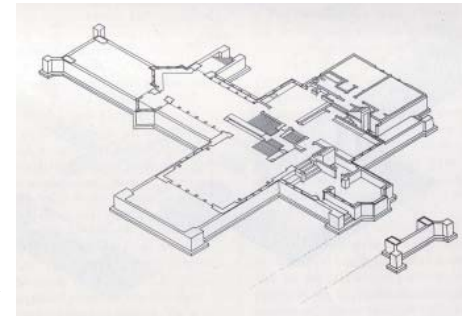
⁷ *The Place of Houses*, Charles Moore, Gerald Allen, Donlyn Lyndon, University of California Press, 1974, 2000, 73

⁸ *The Place of Houses*, Charles Moore, Gerald Allen, Donlyn Lyndon, University of California Press, 1974, 2000, 73

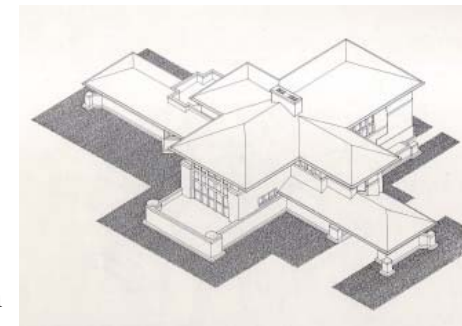


ignored the fact that certain areas in a house should at times be separate, and at others be private.”⁹ The purpose of each space and the way in which it was lived began to drive design and connect certain spaces to one another and separate others.

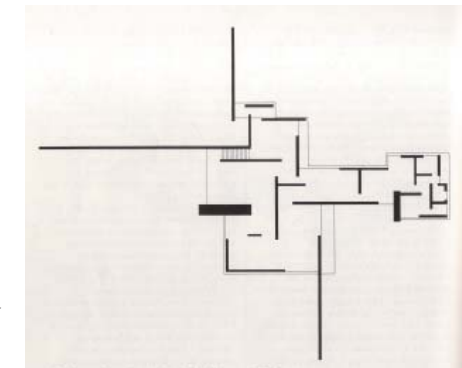
Mixed-income housing can take elements from historic housing and incorporate them into the design of a mixed income housing complex. The design for my thesis will incorporate interconnected spaces, allowing for free movement throughout an open plan. The design will define public versus private space. The more public spaces in the residences will be separated by more open, temporary or translucent barriers, this would create more interactive, common spaces. The more private spaces will be more solid in separation and glazing less substantial, creating more secluded and intimate spaces. The location for each room or space shall be placed appropriately for light, movement, or view creating more effective spaces. Units should be designed for flexibility, as there is generally an expectation of a high rate of resident turnover. This would be done to appeal to many different types of users. Many of the ideas previously used by architects still hold value to the designs of today and should be taken into consideration for mixed-income housing complexes.



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⁹The Place of Houses, Charles Moore, Gerald Allen, Donlyn Lyndon, University of California Press, 1974, 2000, 81

4. Pragmatism

In order for the designers to truly invest themselves in a project, they must understand specifically who they are designing the building for. In this connection between both the people and the design, there is a need to address a pragmatic approach to the building. Pragmatism is the use of practical solutions to issues or problems. “Pragmatism is also a philosophical movement, developed in the United States, which holds that both the meaning and the truth of an idea is a function of its practical outcome.”¹⁰ In pragmatism sensible responses to designs coincide with theory.

There is a sensible balance between in-depth theory-based design and that of the practical needs of the design which produce great value. Stan Allen, an architect in New York City defines his designs as pragmatic, and pushes for the idea that the building is more important than the thinking. One of his designs, a house on Long Island is built with a compact footprint, and open interior spaces which creates an interlocking of solid and void. Filtered, ambient light is incorporated so that the light

¹⁰ www.radicalacadamy.com/amphilosophy7.htm



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changes with the seasons and the time of day. (photos 29, 30, 31) Stan Allen’s designs are directed toward solutions to what is needed in the building and designing pragmatically.

Pragmatism itself deals with theory, and “conceivable sensible effects,”¹¹ as well as the human response to habits. The eco-shelter for the Pantai Cempedak Eco-Reserve responds to human interaction in an eco-environment. The structures are raised on stilts for minimal eco-impact, as well as the structures being connected by raised walkways. This allows observation and human interaction with out disruption. (Photos 32, 33)

Pragmatism is also an understanding of truth when design is based upon results that were derived from practical means. A Florida architecture firm by the name, Design Freesom inc. takes on such a philosophy, “A building should reflect: the local environment, the clients safety, long term cost savings, quality material and beauty.”¹² These elements include overhangs and cross-ventilation for the local environment and hurricane retrofitting for the client’s safety. The long term cost savings including energy efficient appliances, correct locations of windows and better use of insulation. This firm seeks truth and beauty through architecture.



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¹¹ www.radicalacademy.com/amphilosophy7.htm

¹² www.designfreedominc.com/values.html

Taking a pragmatic approach to architecture does not make the design less visionary. Léon Wohlhage Architekten an architectural firm in Berlin, Germany prides themselves in having creative, but pragmatic designs. Many of their projects are award winning and innovative. Some of their projects include House Voss Münsterland, a residential project with an atrium and open spaces (photos 34, 35, 36), and the TV and sighting tower in Guangzhou, China which won the first prize in a 2004 international competition (photos 37, 38). The designs are based on taking what is needed pragmatically, rather than being completely abstract, while still maintaining some idealistic attributes. “Pragmatist architecture does not have a particular style so much as an approach.”¹³ The approach contains methods that deal with the need to design to the human interaction with the building. The success of the design will be determined by the functionality, appearance and contribution to the environment in which it is built. Theory has its place, and is highly important to the architecture, but theory needs to be joined by practicality in order to become meaningful element.



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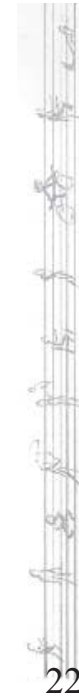


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¹³ <http://query.nytimes.com/gst/fullpage.html?res=990CE2D9103AF936A15752C1A9669C8B63&sec=&spn=&pagewanted=print>





A powerful description of pragmatism is expressed in William Ramroth's *Pragmatism and Modern Architecture*.

Architecture is not origami. A drawing cannot be folded in a clever way to make a real building. A picture of a building is no more architecture than a drawing of a sculpture is the sculpture. To exist, the building must be built. A building is the outcome of an idea. Pragmatism is the philosophy that connects an idea with its result. It measures the success of the idea by its function, its appearance and its contribution to the environment in which it exists.¹⁴

Pragmatism is important to this thesis because if architects are to design a mixed income housing complex, they must understand exactly who and what they are designing for. They are designing for people who live with a fair amount of money and those with very little money. The building will allow people of low income a chance to reside in a more positive atmosphere. Responds to environmental concerns will include reactions to solar, wind, and temperature. Responses may include passive heating and cooling strategies such as overhangs deep enough for appropriate shading, operable windows for ventilation, daylighting for abundant natural



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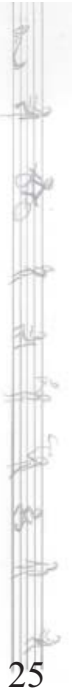


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¹⁴ Pragmatism and Modern Architecture, Ramroth Jr., William G., McFarland & Company, 2006

light and photovoltaic panels for energy. In taking a pragmatic approach to the design of a mixed income housing complex, the design will take into consideration the human action and interaction that takes place around the site, determined from site research.





5.Precedents

Cabrini Green
Chicago, Illinois, USA
(CHA) Chicago Housing Authority

Cabrini Green was located on Chicago’s Near North Side between Evergreen, Sedgwick, Chicago, and Larrabee streets. The buildings were mid-rise to high rise, built over a twenty year period, originally as an urban renewal project. Named after a nun and her charitable work, the buildings were anything but a valuable response to charity. The site became a national symbol for the problems associated with public housing.¹⁵

Once home to 15,000 residents, these were the type of buildings that drive the stereotype of a “slum,” and it was once described as such, “Cabrini Green seems to reach the sky in a myriad of dark floors, abandoned and wired public housing where people live in constant fear of violence.”¹⁶ There were many gangs, violence and drug exchanges. The project became a community, and not a positive one.



“It’s like having a wall around [Cabrini Green]. There’s an invisible wall and nobody comes in,”¹⁷ Most people in Chicago feared to go near it, because of its reputation, and for good reason.

During the 1983 election, Governor Jane Byrne exclaimed that it was not as bad as everyone was claiming it to be and said, that she would stay overnight in the place to prove this. She didn’t last into the evening before she left in haste. Eventually Cabrini Green became such a problem for the city that they tore it down to create communities with mixed incomes. A former resident of Cabrini Green, Darell a former gang member, was recorded to have made a valuable comment for improvement of such spaces. He said, “Open your youth centers. Give kids something to do after school. If not, they see these rich guys on the corner with drugs and jewelry. Give them something to do after school that is fun because if not they won’t come back.”¹⁸

Qualitative aspects: None that are positive

Quantitative aspects the building possessed: 3,500 public housing units with a total of 15,000 residents. Low budget allowed for the disrepair of the building causing deterioration of the site. The open space around the buildings was a blight on the area.

¹⁷ <http://www.nd.edu/~observer/02192001/News/0.html>

¹⁸ <http://www.nd.edu/~observer/02192001/News/0.html>



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Yerba Buena Lofts:
San Francisco, California, USA
Stanley Saitowitz Office
2002

The Yerba Buena lofts are located in San Francisco along Folsom street where the apartments take up an entire block. The units are loft style, originally modeled from the spatial aspect of industrial warehouses. The ceilings are low in height, and the plans are deep and narrow, but allow use of much light. There are 200 units in this complex. Each unit is 15 feet wide and generally 49 to 66 feet deep, and each unit is double height. This building complex uses a concrete grid system and glazing on the full height of the facade facing the street. The building uses simple and few materials. The car parking is designed efficiently into the building by being placed at the center where no daylight reaches. The units maximize daylight into the building. All units have access to private outdoor space. The structure is an “egg crate” shape.

The qualitative elements used in the building that are inspirational for this thesis:

1. Flexible plan, creating abundant movement throughout the units.



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The qualitative elements used in the building that are inspirational for this thesis;

1. Flexible plan, creating abundant movement throughout the units.
2. The amount of light that is let into the structure create invigorating areas.
3. Balconies providing calm, contemplative spaces.

Quantitative elements used as inspiration for this thesis:

1. Usage of simple palate materials for easy maintenance.
 - a. Concrete
 - b. Full height glazing
 - c. Steel for balustrades and railings
2. Structural system simple and visible
3. Use of building space, such as parking being placed in the center of the building where the light does not reach.



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D residential building
Venice, Italy
Cino Zucchi Architetti
2002

This project is state subsidized housing. The goal was to integrate a modern building into the rich historical setting of Venice and also to avoid cliches of historicism or pastiche. It was required to use a limited amount of materials.

The building is located on the island of Giudecca. It is a part of a much larger project to redevelop the surrounding site, which has long been a dense residential area. The project includes housing for students, single people and families. There are a total of 16 units in the building, no space is wasted. The living rooms, bathrooms and bedrooms are reached via small internal lobbies.

The construction type is load bearing brick masonry. Elements such as the water that surrounds the building create a need for durable facing added for protection. There is a private rear light well, or courtyard. The windows appear as if set at random, but quite to the contrary, are placed according to interior



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spaces so as to maximize views or to provide levels of light and ventilation.

Qualitative aspects unique to the project:

1. A modern building integrated into a historical site.
2. Surrounding area is taken into consideration and building is integrated by using similar design elements as the surrounding buildings.
3. Uses of light and ventilation are carefully designed in different levels creating vibrant spaces.
4. A courtyard is used as exterior public space encouraging interaction.



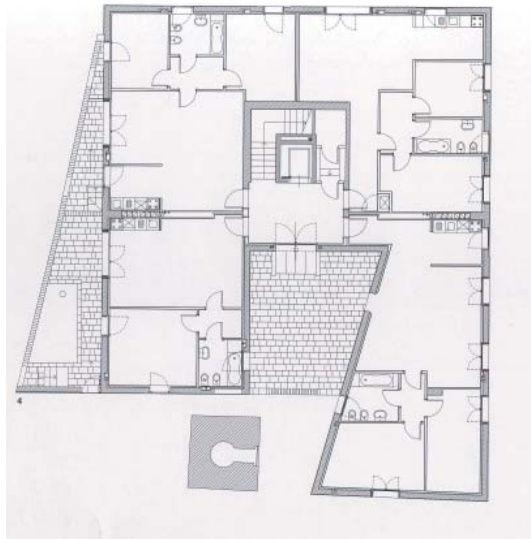
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Quantitative aspects that bring intrigue to the project:

1. Efficiency of space.
2. Small outdoor space is utilized with courtyard
3. Limited palate of materials.
4. Mixed use housing.
5. No spaces are wasted.
6. Light wells used where needed.



52



31

CODAN Shinonome Canal Court Block, Block 1
 Koto-ku, Tokyo, Japan
 Riken Yamamoto and field shop
 2003

This building is situated on the waterfront of Tokyo, Japan. There are six high-density residential housing schemes. Each scheme will be designed by a different architect. All worked together for an overall plan for the block and the landscape design. There was a need for consistency of the floor levels for connection between all the designs. The external spaces between and around each of the buildings are key elements to the total design. These spaces have been labeled “outside living spaces” and have narrow strips for planting, open ground or are covered with open metal grills for continuous surface. The open space is on the second level. The first level is for commercial use and the residential towers rise high above the whole area. The living spaces between create new definitions, or delineations, between public and private. The infrastructure is a 60-foot deep concrete frame. It has a 20-foot structural grid. It is described as somewhere between the clearly private space of the dwelling and the common or shared corridor of the block. A good deal of natural light enters



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the building via the abundance of glazing, bringing light into the corridors because of the glazing on the interior walls. The blurring of public and private is intended for at home office spaces. The natural lighting is meant to reach all rooms of the units, including the bathrooms.

Qualitative aspects to the project that inspire this thesis:

1. Outside living spaces.
2. Uses of space at different times of the day, keeping constant movement of people.
3. High importance given to the exterior spaces.
4. Definitions, or delineations, definitions of public and private spaces, concept of public and private.
5. Daylight to all spaces including bathrooms.

Quantitative aspects to the project that inspire this thesis:

1. Green open space, common spaces for residents.
2. The levels of the building are separated, commercial is on the ground level, open space is above and then residential is located at the top.
3. Sustainable strategy such as open space used as rainwater runoff.
4. Paths connect the levels.



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Orchard Gardens
210 N Grove Street, Missoula Montana
Don MacArthur, MMW
HomeWORD

This is an innovative, sustainable, affordable housing development. Orchard Gardens has 35 units of studio with one and two bedroom apartments. This, \$6.5 million projects serves income levels below 50 percent of the area median income (AMI) and was completed January 2006.

The project is situated on 4.6 acres and its aesthetic is a contemporary rural vernacular. Two acres of the site are used for community gardens. The project is completed with a community barn, orchards, and a bike trail that is connected to the city trail system. The parking structure is located underground to cut down on the total amount of asphalt used. There is also covered bike parking to encourage sustainable transportation. The residents are also given free annual bus passes. On site public art was included to contribute to the construction budget.



57



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The use of sustainable strategies is a large aspect that inspires this thesis quantitatively and, in turn, these strategies create great qualitative aspects. There are many sustainable features integrated into the design. They area as follows:

1. Photovoltaic system on main building for electric and hot water systems.
2. Ground source heat pump utilizes the Missoula aquifer.
3. PVC-free buildings.
4. On-demand water heater.
5. Low-E windows
6. Use of sustainable harvested lumber from Montana.
7. Use of pulverized recycled glass for road base.
8. Building orientation is on the East/West axis
9. Energy modeling.
10. 35% fly ash in four building foundations, 100% fly ash foundation for community barn.
11. Wheatboard cabinets.
12. Metal roofing made up of 30% recycled content.
13. Structural Insulated Panels.
14. Dual flush toilets.
15. Preserve existing cottonwoods.
16. Load-bearing strawbale construction in community barn.
17. Low VOC paints, sealants, and adhesives.



59



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34



6. The corner of Lombard and Columbus

Situated in what used to be Joe Damazio's old neighborhood, sits my site at the corner of Lombard and Columbus. During the day the site is soaked in sun light and is energetic with the rhythm of the street. People come and go, none seem to be in a huge hurry to arrive at their destinations. I am the only one who seems to have reached her destination. As I transition from walking along the busy tourist street of Columbus onto Lombard, I have passed through an invisible barrier into a residential area with not a tourist in sight. Although I can see Columbus one block away, and the passing tourists, I feel as though I am in an entirely different world and am looking at them through a large screen. The locals here are all very engaged in conversations, more than happy to pause and talk to a passer-by they may not know. The atmosphere is a mixture of many groups of people all genders, races and ages. As I am working on measuring the site, I am stopped a few times and asked what I am doing, each with curiosity and not accusation. They all tell me a story of their own. Two in particular stand out.

The first is an elderly gentleman by the name of Paul Grogan. He lives across the street from my site on an upper level apartment along Columbus Street. The public library is closed today as it is Vetran's



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Day, and he is slightly disappointed because as he states, he “loves to read in this library because of all the natural light.” He decides to sit down beside me as I observe the rhythm of the street, marking whether a person, bike, vehicle or trolley passes. He engages me in conversation and allows me great insight into this particular area.

It was an area that was once a very dangerous part of the city, run by crime. He describes the neighborhood as it once was, with its bad reputation. When I ask him about low-income housing in the area he tells me about a poorly built low-income housing complex that used to exist not far from where we are sitting. It has since then been rebuilt, but was a, “horrible looking building,” according to Paul. One would never know now, that this was once a bad part of town with the energy that it seems to possess today. Paul states that, “every neighborhood has their troublesome kids, slashing tires and causing crimes, making this one no different than any other.”

He makes it perfectly clear that this is now an improving area, and then continues to describe different diners, how they used to be, say, a barber’s shop, and how cheap everything used to be here. He states that, “Now, there are parades with famous people like Sophia Loren, who was recently in the Blue Angels parade.” While he trails off into



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another story that is far away from this site, I hear the sounds of vehicles slapping against the trolley tracks every time they pass. He finishes the yogurt he is eating for lunch and tells me about the go-carts that love to fly down Lombard, on the most crooked street reaching “40MPH” after the street straightens out, in only a couple of blocks. He finishes up his story and says that he has to get going and then heads on his way. He was such an interesting source for the site as he lives there and has for sometime.

At night the site is less lively, but not in a negative way. It holds certain calmness to it. As I wander by the public pool, I come across the man who runs the place. His name is Greg Scott. I ask him many questions and he gladly answers all of them. He too knows a great deal about the area as he has worked for this pool for twenty five years. The pool, he tells me has been on this site since 1905, a community asset and draw for many of the local kids. Greg seems to know them all and keep them involved. He shows me around the newly reconstructed pool. There have been awards won for this pool because of mental and physical health considerations on the design. He is preparing to leave for the day. As he walks outside, he keeps describing the area, and even points out an affordable housing complex just a few blocks away. He seems very proud of this area and the fact that he has been here for a couple of decades. As he is



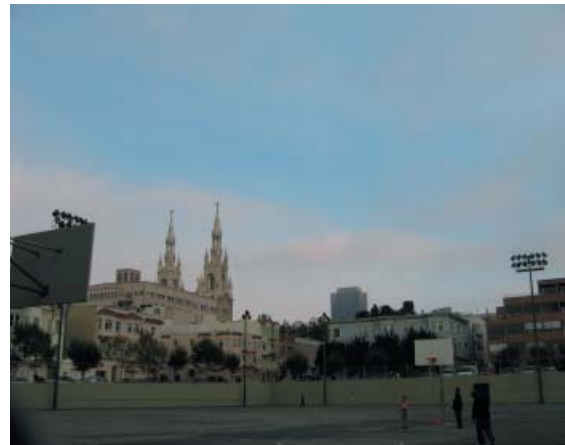
walking back to his vehicle to drive, we pass several youths who all know him, and likewise, each seems fully engaged in the pool. The sun has set and any movement seems to have died leaving only the lights from the surrounding buildings. The glow is not intense, but they are almost a reassurance that the area exists and speaks into the night that it won't be forgotten because of its emerging glow of residential lights.

From this site analysis I am able to determine certain facts about the site. The observation that people all seem to pass by and not stop on this site, means that the design can become a destination, as it is not so currently. The activity of the tourists on Columbus is a cue to me that anything designed along the street level needs to be commercial and not entirely private residential. The friendliness of the locals reveals to me that this is a good atmosphere for a residential building. The diverse demographics of this neighborhood create a good situation for a mixed income housing complex.

The people that I talked to gave me great insight into the site on a personal level. Talking to Paul Grogan shows me that the library is very important and needs to remain a valued part of the neighborhood. From speaking to Greg Scott I found that the pool must remain as it is a vital component of this area as it is an important icon to the neighborhood. As I sat



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there during the day and heard the noise from the street I was able to determine that large operable windows or elements that let in great amounts of noise along Columbus will not be beneficial during the day due to the noise. However the residential areas will be occupied more in the evening and night, so noise will not be as much of an issue. The site is quiet during the evening and will provide good residential conditions for sleeping. The involvement of the neighborhood around the site is one of the reasons that I chose this site. It will be a good one for a mixed income housing complex.

Following is a graphic description of the rhythm and flow of traffic along the site, sidewalk and street. The traffic allows me to determine where the noisy areas will be around the site, the kinds of vehicles which pass allows me to know how much noise to expect and from which direction most of the traffic will be traveling. Knowing the traffic lets me know whether the design should be open, closed or meandering. In knowing the primary areas of noise, the design can respond positively to possible noise disturbance.

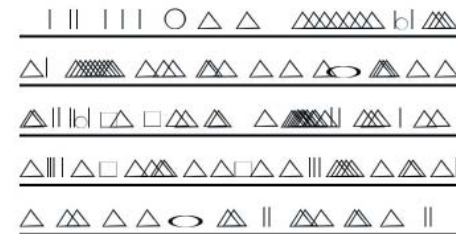


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Rhythm of the street

5 minute period of time

- | = Person
- = Bicycle
- △ = Car
- b = Stroller
- = Bus
- = Trolley



United States



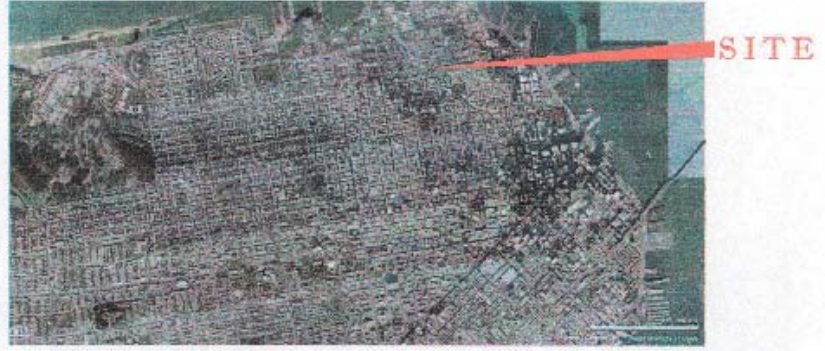
California



San Francisco



North Beach

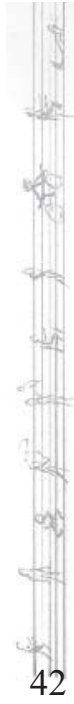
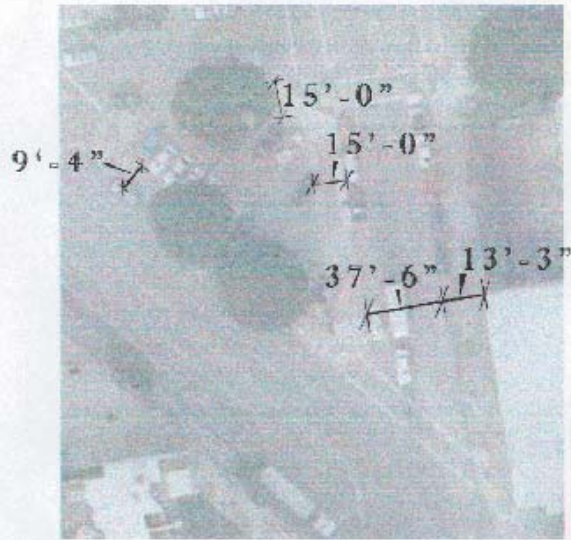
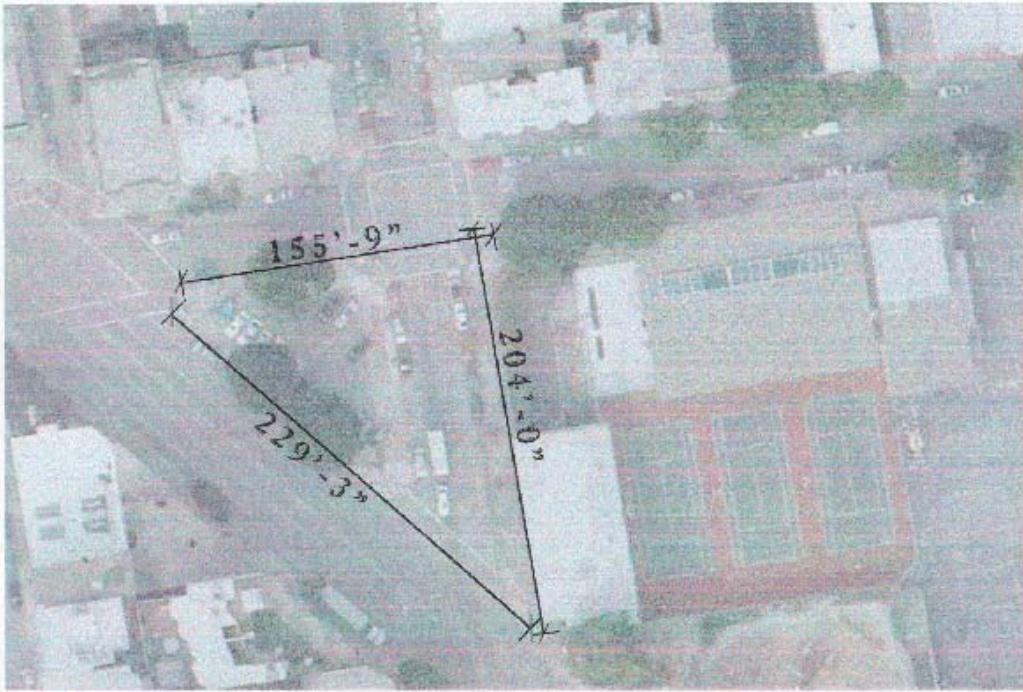


Neighborhood



Site







43



- Lot spots
- Street side spots

Total of 44 parking spots. There will be available parking for residents below the building, on the first sub-floor. The section of Mason street between Columbus and Lombard, is currently being discussed for removal for construction purposes. I will take advantage of the opportunity to expand my site.



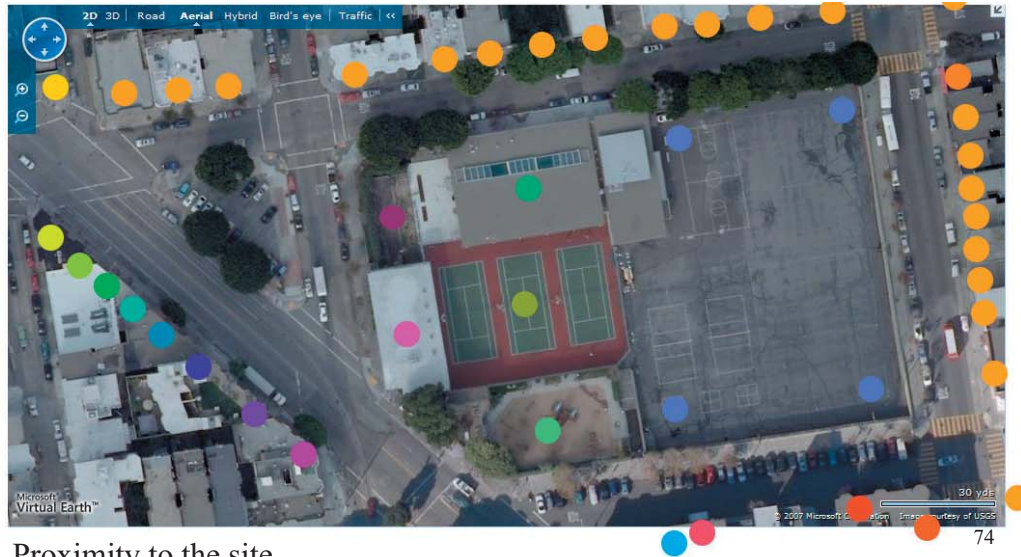
- Trees
- Small trees

It is important to keep the vegetation on the site. The design will keep as many as possible, such as the trees existing to the east, near the library.



- Street light
- Electricity box
- Power line
- Stop sign
- Traffic signal
- Sewer drain
- Fire hydrant

The site has easy access to utilities.



Proximity to the site

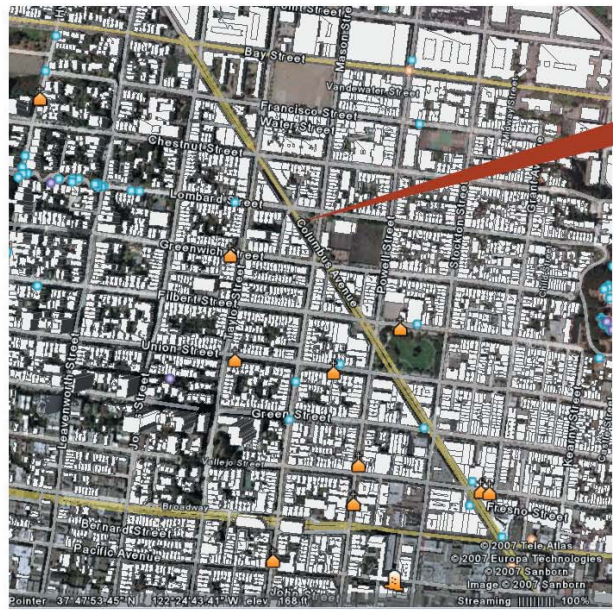
- Circle TV
- Antiques
- 807
- Tattoo
- Toni's Hair studio
- Alfa center (mercedes repair shop)
- Bike and Skate (rental and retail)
- Bike and Roll (rental and retail)
- North Beach Food Market
- Residential
- A.M.D. Trading and table tennis
- Doo Wash Cleaners
- Tom's Beauty and hair
- Cafe above
- Sallie's new looks (salon)
- Public pool
- Tennis courts
- Open recreation space
- Playground
- Public library
- Lawn bowling (sells lawn bowling equipment)

My analysis of surrounding businesses such as tattoo parlors and cafes, it seems a bookstore, restaurant, cafe and art gallery would most likely thrive on the site.





Places of worship in proximity to the site

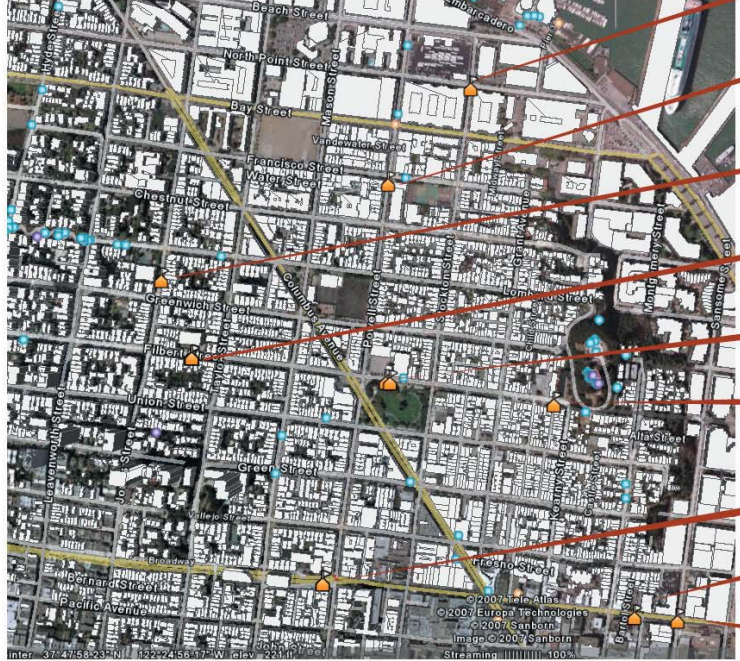


Site

Knowledge of the location of amenities such as schools, grocery, stores, parks and places of worship allows for the understanding of the amenities proximity to the site. This allows the design for this project to either incorporate any of these elements that are needed around the site or determine where there is no need due to existing close proximity.

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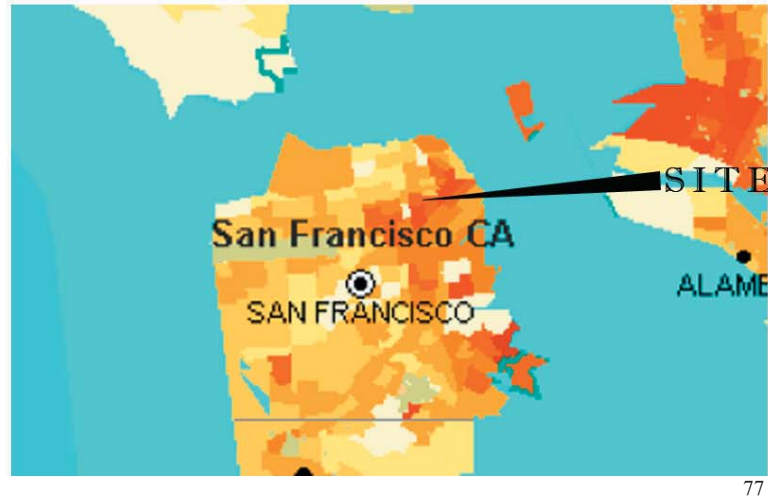
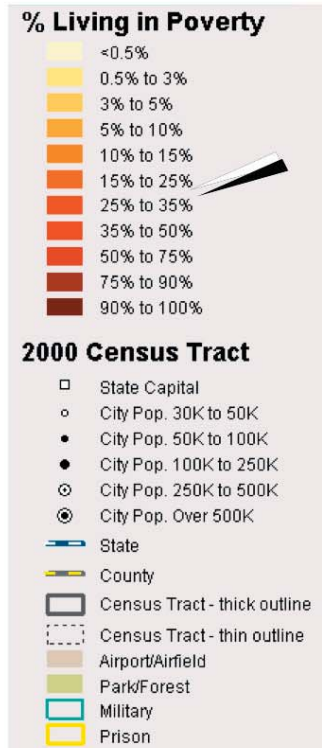
Schools in proximity to the site



- Academy of Art College
- Francisco Middle School
- Yick Wo Alternative Elementary
- China Town North Beach City College
- St. Peter and Paul School
- Garfield Elementary School
- Jean Parker Elementary
- John Yehall Chin Elementary
- Goodin MacBride Squeri Scholtz

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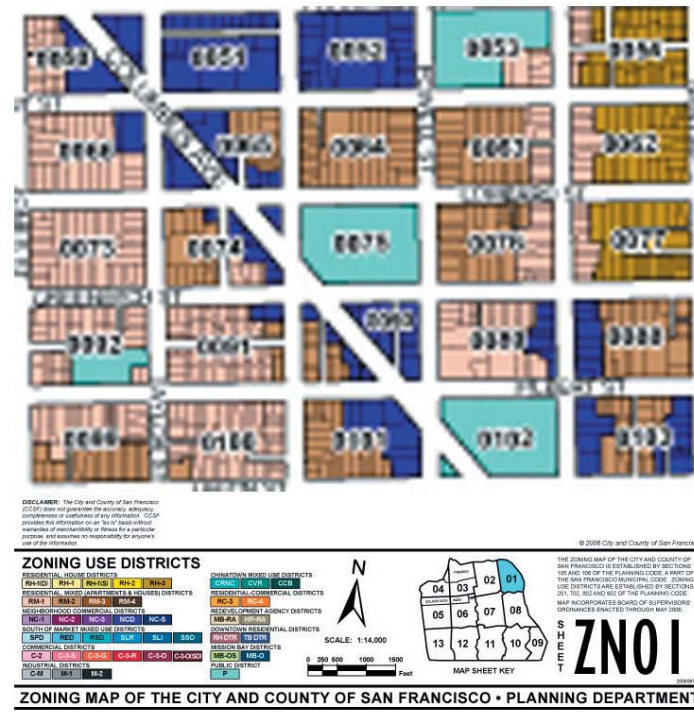


This map shows most of San Francisco, although to focus on the specific site there are currently between 25% to 35% of people living in poverty. Based upon this data then this project is a good location for a mixed income housing complex.

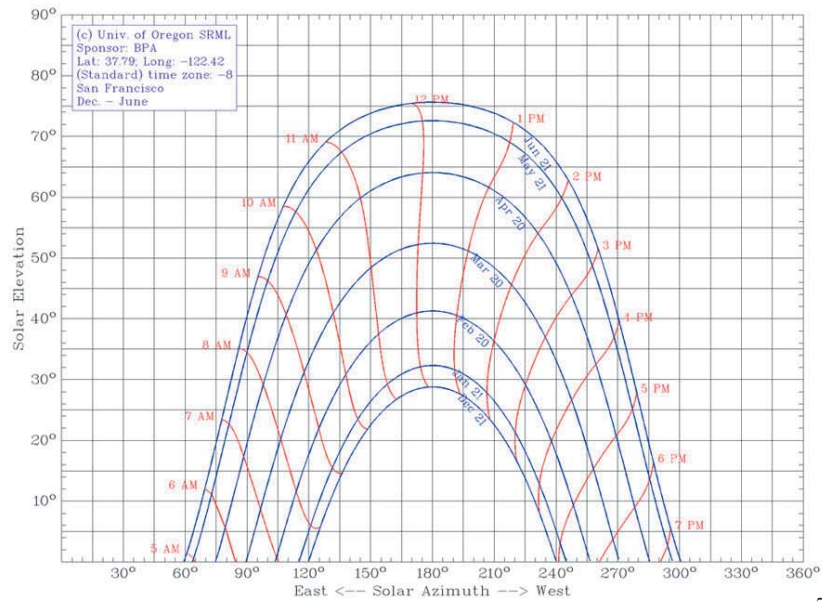




47



The zoning map identifies the site as, Neighborhood Commercial district (NCD), which allows for mixed-income residential building with commercial at the street level, therefore the typology that I am proposing is appropriate.

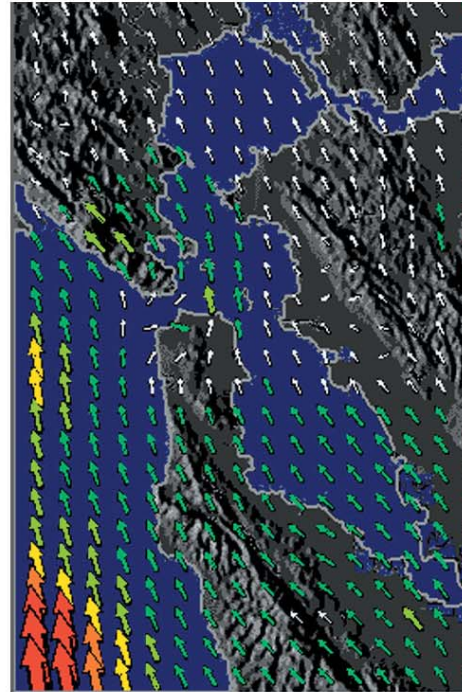


The sun chart will be used to determine the appropriate placement and size of windows and openings. The angle of the sun and the time of day will allow the design to take full advantage of solar light and warmth.

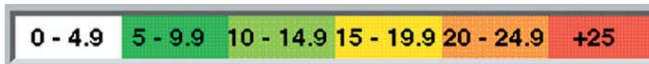




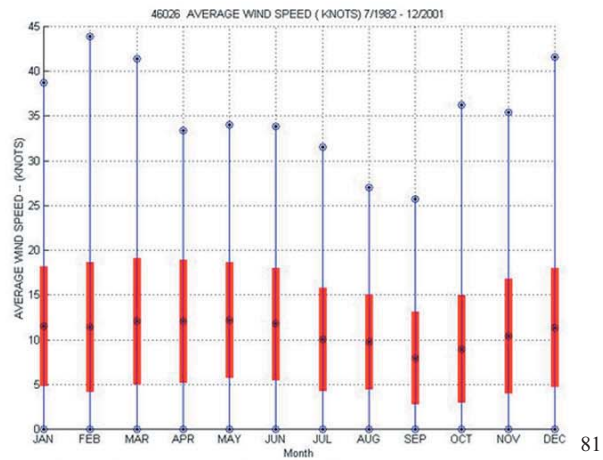
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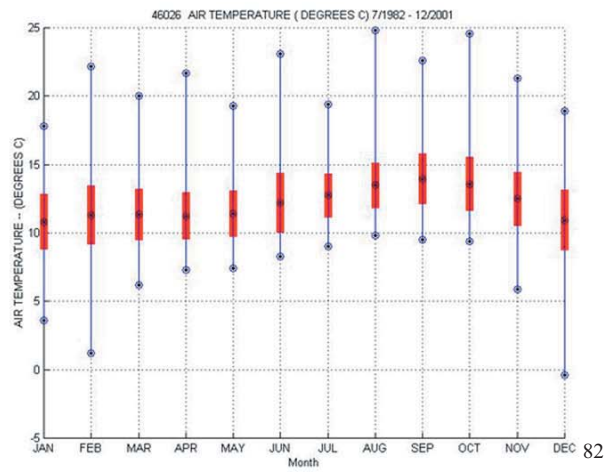
80



Wind generally moves from east to west or from south to north. In this area wind speed is slower from 0-4.9. The knowledge of the common wind direction will determine certain design elements within the building and effect placement of openings relative to providing natural ventilation.



The wind speeds are not too severe, they stay at an average between 15 and 17 knots. (18-20 mph)

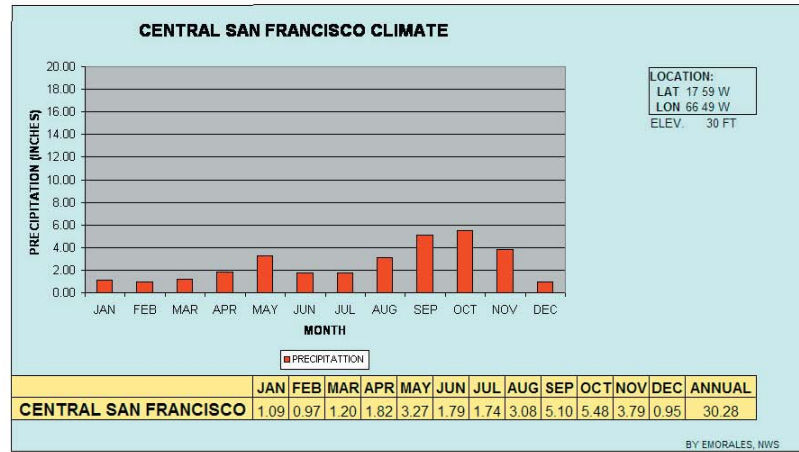


With average exterior temperatures between the 50s and 60s F all year round, will allow for the exterior spaces to be used year round.



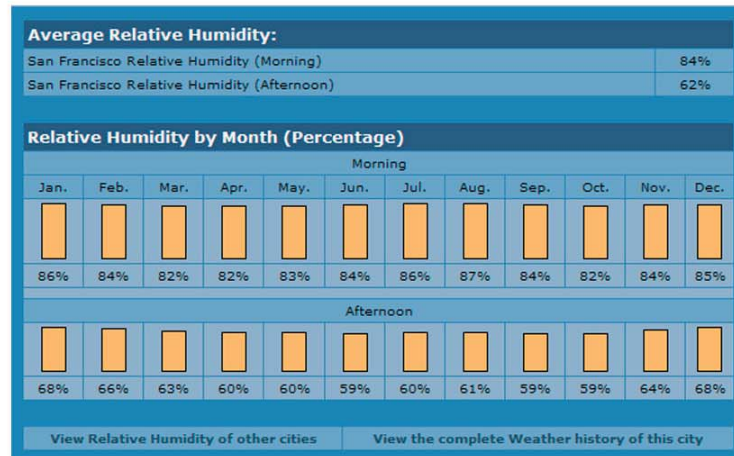


Central San Francisco Precipitation Normals



83

Precipitation information shows that use of rain water through vegetation and cisterns may only be useful in winter months and therefore cisterns will not be highly effective.



84

Precipitation and humidity show temperate climate allowing comfortable use of exterior space for all times of the year.



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Qualitative Aspirations

This thesis focuses on the idea of low and mixed-income housing issues, an approach to housing and the process of pragmatism for a methodology for the design of a mixed income housing complex. Many concepts and issues have been discussed for an understanding of what goes into such a structure. Addressing these concerns, the research introduced the history of housing, what it means to be low-income and the issues. Additionally there were precedents of both negative and positive qualities of housing, as well as the introduction of the site for the project itself.

The aspiration for the project is to design a mixed-income housing complex, located in an up and coming neighborhood in downtown San Francisco. There will be defined public and private areas. The public exterior areas will be commodious with meandering pathways, community gardens and park-like terrain. Public spaces will also adjoin the building. Some of these spaces will be esplanades and others sidewalks along a busy street. The public interior spaces will be lively at all times of the day through the incorporation of commercial space. All of the public areas will encourage the residents to interact in a gratifying environment, due to the open space.

Private spaces, such as residential units and common spaces will not be accessible to the public, thereby creating a sense of safety. Exterior private spaces will include individual terraces, which are contemplative spaces, where residents are not in constant interaction with others. Interior private areas will be open, with high ceilings and windows, allowing abundant light for the warmth of the morning sun or the glow of a setting one. Spaces within the units will be invigorating due to the organization and location of the individual units, rooms will be placed according to the view or opportunity for air and light.

These qualitative aspirations create the feeling I believe important for such a project. By creating these spaces as described above, there will be opportunity for the project to exemplify the meaning of a successful mixed-housing complex. These are guidelines that I will follow during the design process to achieve a desirable design. If the design created is desirable than I believe the project will be a success.



Program

Site	10,140 (s.f.)
Cafe	849 (s.f.)
Pastry shop	913 (s.f.)
Bookstore	1,449(s.f.)
Restaurant	2,076 (s.f.)
Art Gallery	2,375(s.f.)
Total Circulation	13,402 (s.f.)
Public open space	3773(s.f.)
Private open space	5956 (s.f.)
Mechanical	4,000(s.f.)
Storage	948 (s.f.)
Units	742 (s.f.) - 1464(s.f.)
Parking	8,365(s.f.)
Total commercial space	7662 (s.f.)
Total residential space	25,578(s.f.)
Total floor area	65,629(s.f.)

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