

Inter-generational living can be described as living together in a model of cooperation, interaction, and exchange that facilitate mutual support and relationships which benefit both individuals and their communities (Generations United). Social networks and community support are necessary to maintain close relationships, purposeful life, and general well being (Rowe). Such relationships should be facilitated by the design of space (Osmond), thus made a part of the everyday life. The question becomes how design can facilitate these relationships. This project is based on the premise that interstitial space, defined as “in-between” spaces that connect different realms, in particular should employ such design strategies. The reasoning is that the adjacency of varied activities creates the potential for particularly enriching interactions. The entrance to a building not only mediates the transition between public and private realms; it also provides a local for residents of the two worlds to meet on neutral ground. Similarly, a corridor is not only a space to move through, but also where chance encounters with other travelers occur. Even within the home certain areas act as a center and bring members of the family together. The ultimate goal of this research is to, through the analysis of precedent, research studies, and past theories, determine strategies for socially successful living environments. Then the project proposes to refine these strategies through design exploration the result being a model for successful inter-generational living.



sara hartman

Interstitial Space: Promoting Social Health in
Inter-Generational Living Environments





interstitial space

“The sum of such casual, public contact at the local level ... is a feeling for the public identity of people, a web of public respect and trust, and a resource in time of personal or neighborhood need.”

-Jane Jacobs, *The Life and Death of Great American Cities*

This project comes from an architectural thesis studio, where the task was proposed to explore design options that promote health, specifically looking at aging populations in the United States. The idea that the built environment can impact lifestyle, health, and happiness is something with considerable precedent in Europe. Many such projects focus on inter-generational living. Although an inter-generational household would be non-traditional in the United States, many other countries have now explored strategies for accommodating people of all ages. This studio proposes to adapt such strategies in combination with good design to create a model for inter-generational living in the urban US. Such a model could encourage the habitation of urban centers and improve the quality of living in these places.

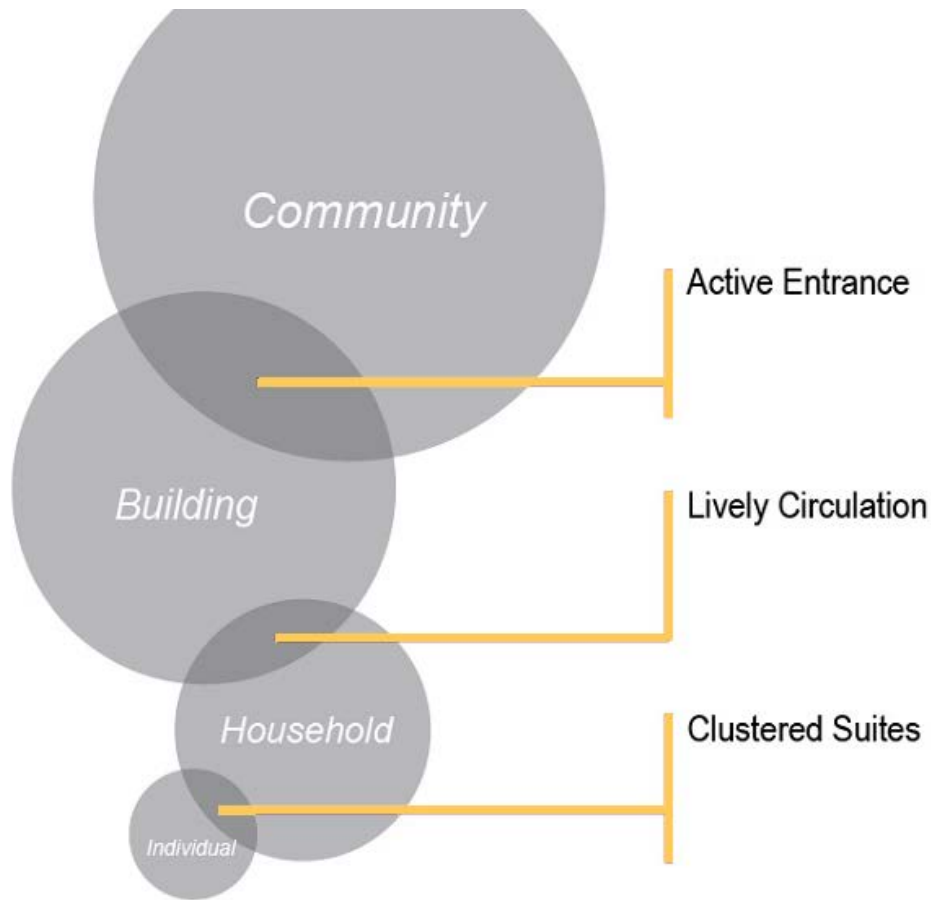
In addition, these strategies are also meant to demonstrate that it is possible to accommodate all generations regardless of the setting. In part, this project attempts to bring attention to how the current environment fails to focus directly on the needs and requirements of users in order to positively affect human well-being, particularly when that failing excludes older generations from leading active, healthy lives.

Furthermore, this project specifically investigates the social circumstances of inter-generational living and the development of interstitial space as a strategy in support of this new architectural building type. It proposes that cooperation, interaction, and exchange can facilitate mutual support and relationships which benefit both individuals and their

communities (Generations, 3). In this way, a culture of social sustainability is also proposed. In a cycle of mutual support that accommodates all stages of life, this model is meant to perpetuate itself. By designing in such a way, the architecture can improve life in the urban living environment.

Defining Interstitial Space

The word interstitial most simply means “in between.” The Webster dictionary definition is “of, forming, or occupying interstices,” meaning an “intervening space”. For example the gaps of air between fence slats, the space between human cells, or the gap between a ceiling and the floor above are all traditional examples of interstitial space. However, for this research, the word interstitial is not limited to small, insignificant gaps; instead it refers to space in that smoothly transitions its adjacencies. At the same time it harmoniously connects and separates two (or more) spaces so that each is clearly defined as an independent realm but with a relationship to the other. For example, a front porch is interstitial between the private interior of the home and the public world outside. It is neither a conditioned space nor completely open to the elements; the



Interstitial Space in the Urban Environment

porch roof and enclosure make it something in-between. In addition, this space is both private and public in that visitors are free to approach and knock, but it would be inappropriate for strangers to linger without cause. In these ways, the porch allows for people to easily move between the public and private but at the same time it separates

the two so that the overlap is obvious and intentional.

In this research interstitial also refers to ideas that manage interactions between people. Human interaction doesn't work

by forcing people together; if anything too much access to other people can be detrimental when the goal is a constructive relationship. One idea that can be used to explore this further is Jay Appleton's concept of prospect and refuge. Hildebrand uses this idea to explore basic and instinctual wants that stem from seeking resources and hiding from predators. Places of prospect are where it is easy to observe everything that is going on all around. In this way a person cannot be surprised and is in control of their environment. Refuge on the other hand is a place of high enclosure where a person is hidden and that nothing can harm them (Hildebrand, 30). In the same way, a restaurant may have a raised outdoor patio right next to the public sidewalk. Because of the patio furniture, the overhead awning, and the raised height the patrons are protected from the pedestrians, but they also have a great view of the activity on the street. Through this strategy people comfortably occupy public and semi-public areas and make themselves accessible to opportunities for social

interaction.

Interstitial space can happen at many scales and of course at varying degrees of success. In the context of interstitial space that furthers people's living environments, ownership becomes an important factor. Most of the places we live in are not private, not exclusively ours, but we still own them in that we feel as though we have a right to use them and often times some responsibility for them, even if we share that space with many others. This is particularly common in urban environments. Consider a public park or plaza or even just a sidewalk within an urban city. These are places regularly inhabited by everyone living in or visiting the city. In this way they are very much interstitial because they are common ground, they are an amenity to every building and space within the city. And because everyone "owns" them it is an opportunity for people to interact, even if only passively. In addition, most buildings have lobbies and entrances that are interstitial. There is always some transition between the

public street and the private spaces within the building. The details within the lobby can also be interstitial. If an awning overhangs a front door, it signifies a transition onto the sidewalk. Or if there is a seating area then it likely supports the different activities going on in the lobby. Such places are opportunities for interactions among the people that use them.

Like the street network, most buildings have extensive circulation, corridors stairs, lobbies, and landings that are shared by all the residents. These, too, are interstitial. They are where chance can encounters occur and people run into their neighbors. Unfortunately, these spaces are often neglected, in that due to their design, people move through them too fast, never inhabiting or lingering and they lose their sense of ownership. Oscar Newman addresses this in his book *Defensible Space*, when he describes a high-rise residential project where these shared spaces fail to be maintained. No one person stays long enough to feel responsible for them and with no one around

there is no natural surveillance. Such spaces can be exceptionally unsafe, and from Newman's work the idea of "towers in the park" has been widely discouraged because it isolates people and support passive relationships. Newman looks at an extreme situation, where many factors led to the sociofugal nature of those spaces. However, by thinking of the circulation within any space as interstitial, as an inhabited used space where people can hold interactions, these places could be supportive of healthy living.

Unfortunately, the idea of sharing space and of taking care of shared space does not necessarily fit well within how people think. Many people very much value the idea of something belonging to them exclusively even if that means isolating themselves. Ray Oldenburg, a proponent of third places, writes that this is fundamentally rooted in our culture. It is part of the American dream for a person to own their own home and for it to be independent and thus separated. From this we get sprawling American suburbs. Oldenburg writes that this style of living is so isolating that it becomes easier to stay home than go to the effort of seeking out interactions; people are forced to drive to get anywhere and thus even something as simple as sharing a meal with friends demands extra effort from all parties, thus discouraging it. Instead, people stay in their own homes, and in a traditional household that means only a spouse and children or parents and siblings to interact with socially and on a daily basis. Even in highly urban areas, people in America still tend to follow this traditional household model or

to live alone. Space is so expensive in urban areas, that small efficient apartments have become the norm. Even though large numbers of people may occupy the same building, they each have their own little apartment all lined up like sardines in a tin. However, as an alternative, interstitial space can also work on a scale within a home to support non-traditional households. Extended families or even non-related people living together benefit from this arrangement and the relationships that are required to make it work. In the traditional model a person only gets to have what they specifically own, but a person living with a roommate has access to furniture, and books, and other household resources brought in by others parties for everyone to share. In addition, space within the home is also resource that everyone has access to. In this arrangement privacy to some degree is sacrificed, especially if the household becomes exceptionally large, but everyone also gains. The shared spaces get to host lively and dynamic relationships thus creating a very healthy way to live.

Active Entrance

One project that uses interstitial strategies to promote health is the Seniorenresidenz Spirgarten in Zurich, Switzerland. This building consists mostly of small private apartments designed specifically for older individuals. The intention is that the residents can maintain a certain amount of independence here. The staff can provide some supervision, limited medical assistance, and

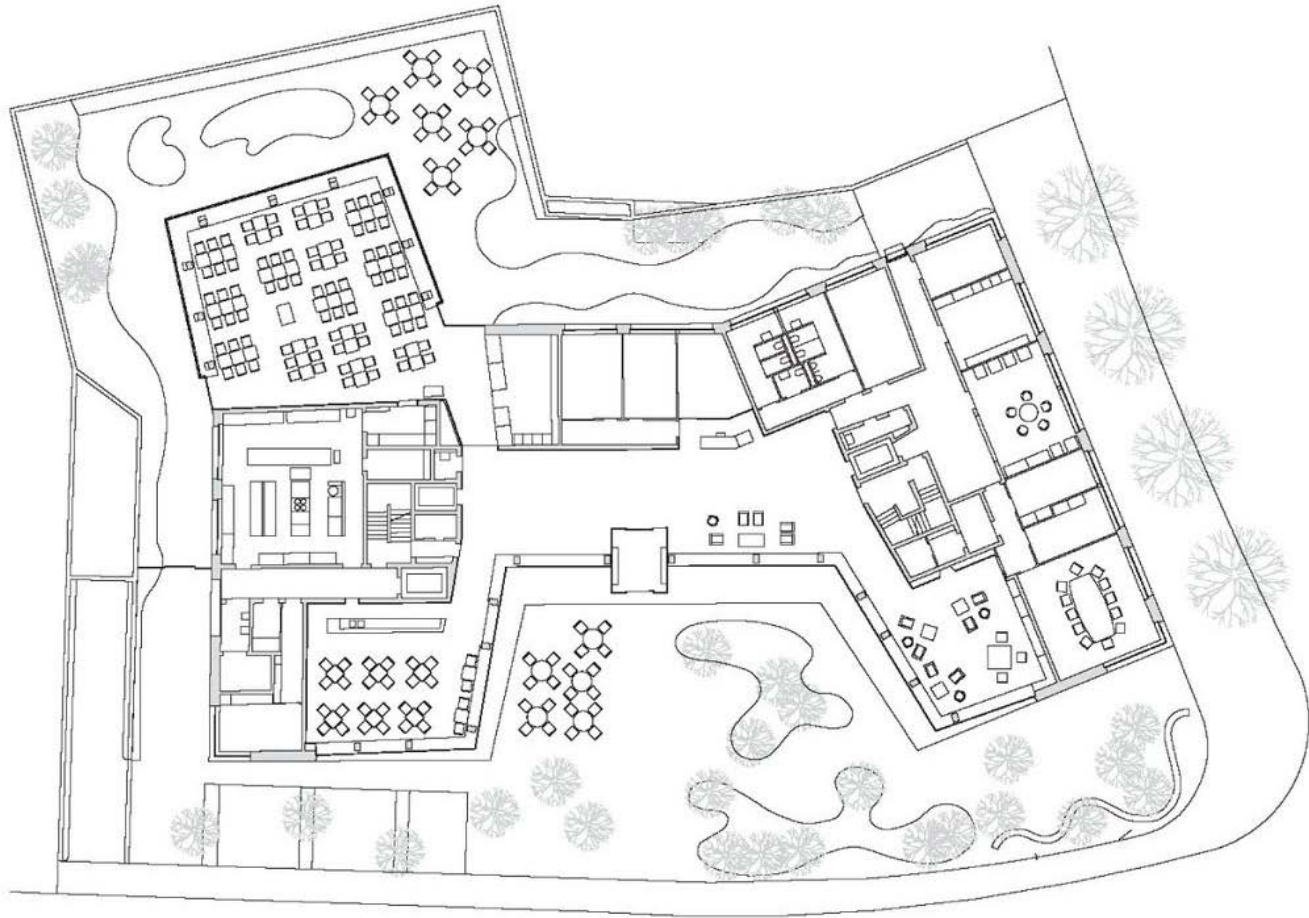
emergency help. But beyond this, the building also supports more informal relationships. Simply being within an active area and among other people can be valued, especially to someone who has lost their mobility. One goal of the building was to bring the life and amenities of the community into building. In this way, residence with limited mobility would still have access people and activities without having to leave.

The architecture of this precedent brings life into the building, particularly on the ground floor

in several ways, the way the building responds to the urban street for example. The designers allow the urban edge to dissolve and create a pocket of outdoor space at the main entry. The building form embraces this little plaza, owning it. In this way, the building creates an interstitial space to service the pedestrian flow of people outside and the occupants within the lobby of the building (diagram 1.1). This transition makes the building inviting, and encourages people to come inside. Ruth Connell writes, “the decision to create closed and impregnable



Ground Floor Glazing, Seniorenresidenz Spirgarten



SENIORENRESIDENZ SPIRGARTEN, Miller + Maranta, Zurich, Switzerland, 2004-2006

buildings carries a social cost. ... The erection of a visually and physically closed wall removes the potential for human interaction at the boundaries between building and street,” (Connell, 60). This idea of

openness is furthered by how the envelope of the building around this pocket of outdoor space is transparent on the ground floor (diagram 1.2). Because the space is interior this transparency does not compromise enclosure but

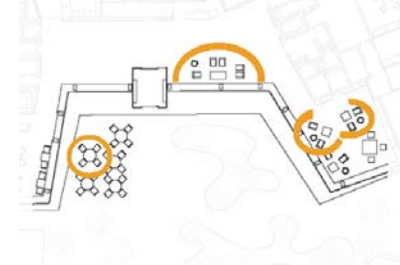
does allow people to observe other people and activities happening outside. Observation is a type of interaction, albeit a much more passive one, but many people enjoy watching others and their activities only as long as they don't feel they are intruding. In his book, *The Social Life of Small Urban Places*, William Whyte describes this



1.1 Embracing Building Form



1.2 Observing Street Life



1.3 Variety of Gathering Places

in that he observed people preferred to occupy such spaces, for example a shady spot under a tree that affords a good look at the passing scene (Whyte, 46). He argues that enclosure provided by the tree or by awnings and other elements provides a psychological feeling of being protected, and this is what makes them appealing.

Whyte also offers considerable insight into other ways people gather and use space. He very



Restaurant, Seniorenresidenz Spirgarten

much supports the inclusion of furniture, particularly seating to encourage use of a space: “people tend to sit most where there are places to sit.” However, he also emphasizes the importance of choice and variety in gathering options. “It is more important, however, that it [seating] be socially comfortable. This means choice: sitting up front, in the back, to the side, in the sun, in the shade, in groups, off alone,” (Whyte, 28). The Seniorenresidenz precedent does this by offering several different areas each with a unique orientation and size. Each of these are interstitial in that they are fostering interactions between people (diagram 1.3). For example, next to the main doors there is relatively exposed cluster of seats right in the

middle of the activity of people coming in and out of building, making it a great place to wait or interact with the receptionist. However, just around the corner from the lobby is a more private sitting room. Here some seats are clustered around a fireplace while others look out to the street life, but the room itself is much more enclosed and private, and presumably quieter. And still, the building also has tables where social norms surrounding eating dictate the interaction. Choice is offered in that some table are interior, some exterior, some in a more casual café or around a bar while others are in a more formal dining room. Each of these situations offers a different type of interaction to accommodate the different situations that may arise. The interactions



surrounding the restaurant space are particularly significant because it goes beyond what might be expected in a residential environment (diagram 1.4). This restaurant is an extra reason for guests to visit, and it takes off the pressure of residents to entertain.

However, it also brings in people who would have no other reason to come to the building. This activity also supports a safe environment. Jane Jacobs argued that a bar, complete with noise and drunk people, was still safer than a homogenous residential street without any night life,” (qtd. in Connell, 60). People are resources to each

1.4 Restaurant and Café



Exterior Courtyard Entry, Seniorenresidenz Spirgarten

other, and interstitial space that accommodates the relationship between them serves to make the resource that much more available.

Lively Circulation

Another project that employs an interstitial strategy is the Vidar Clinic in Jarna, Sweden. This hospitable is a healing community based on the idea that the patients, doctors, nurses, family, and everyone else are all a significant part of the healing process. The architect, Erik Asmussen, incorporated human experiences and



Corridor in Patient's Wing Vidar Clinic



THE VIDAR CLINIC, Erik Asmussen, Jarna, Sweden, 1984-1992



Corridor in Patient's Wing Vidar Clinic

social interactions into the fabric of life within this building, the idea being that these encounters could promote healing. This contrasts to a more conventional hospital design where corridors and rooms are organized based

on efficiency. Instead of straight, minimal, purely functional circulation Asmussen treats the corridor as an habitable space. This facilitates interaction and is interstitial to the different patients and nurses that use it.

Asmussen's design is in many ways very subtle. The organization starts with a simple double loaded corridor, but he then carves out notches of space so that the corridor expands into little seating areas (diagram 2.1). These spaces are small and narrow enough to feel enclosed and protected



2.1 Alcoves Along Corridor



2.2 Transparent Walls



2.3 Angled Corridor

while still maintaining a visual connection to the activity in the corridor (a strategy already discussed in the previous section). This allows someone to be part of the activity without being in the way. In addition, the nooks connect that interior circulation core to the exterior of the building. People get views of the outside landscapes and activities as well as inside, but this also lets sunlight and air into the corridor, enlivening the space even more. The circulation at the Vidar Clinic is interstitial in that the corridor has a strong connection to social spaces

within the building. Interior windows separate the patient lounge and the nurses' room from the corridor (diagram 2.2). This permeability allows for a visual interaction between two spaces without compromising the boundary of either. Observation is such a significant form of interaction, especially for patients. Of course, the nurses being able to observe what is

going on enhance safety and allows for a high degree of service. However, observing others can also be beneficial to patients because it is not strenuous, but it still allows them to be up and doing something.

The design of the Vidar clinic is also very engaging, in that certain elements such as other people, the changing daylight,



People with access to Light and Air, Vidar Clinic





2.4 A Fireplace to Gather Around

or something unexpected to grab a person's focus and have the power to bring a person's attention to their immediate environment. For example, the corridor is slightly angled so that from one end a person cannot see the opposite, but once one moves closer the space is revealed (diagram 2.3). This subtle control over views promotes a sense of mystery and exploration that is engaging the mind and making the users aware of their surroundings. Every time someone walks down the corridor the experience is a little different: different light coming in from the sun, different people sitting there, different things going on. All of this contributes to making this a desirable place to occupy, and occupied space creates opportunities to have an interaction that



Corridor in Patient's Wing Vidar Clinic

wasn't anticipated. In addition, Asmussen also uses details to create moments of vibrancy, even if it is as simple as the placement of window. For, example if a window terminates a long corridor, the light is glaring,

but if the light washes the wall and the window is hidden, then the condition is much more powerful. A common detail that is a source of light, warmth and vibrancy is a fireplace, which was also used in the previous precedent. Here the fireplace in the common lounge is used to draw people in and become a focal point for

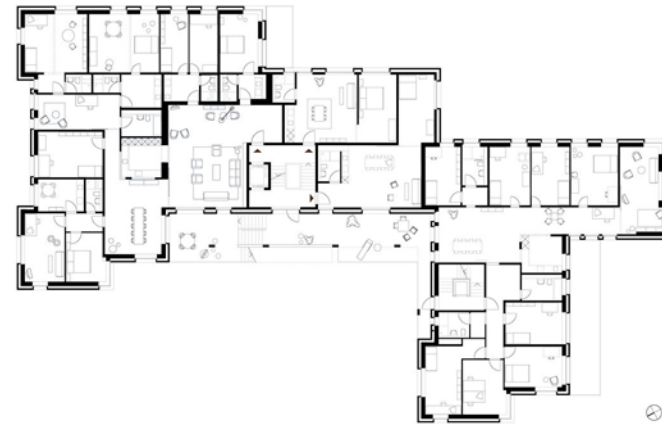
gatherings (diagram 2.4). Details like this set up a culture of passive healing. Instead of taking the attitude that patients must get exercise and the nurses must be efficient and visitors must be quiet the Vidar Clinic promotes the attitude that with an abundance social opportunities and non-demanding activity. At least one nurse that worked this clinic compared it more favorable than the traditional hospitable. She said that even though she walked more steps throughout the day at the clinic, she was less tired at the end of the day (Siepl-Coates). Because the corridor is designed as an interstitial between people, the social culture of the clinic is supportive, creating a healing place.

Clustered Suites

Kraftwerk 2, a residential building in Zurich, Switzerland shows another interstitial strategy. Here apartments are based on an unusual



Library and Seating Area, Kraftwerk II

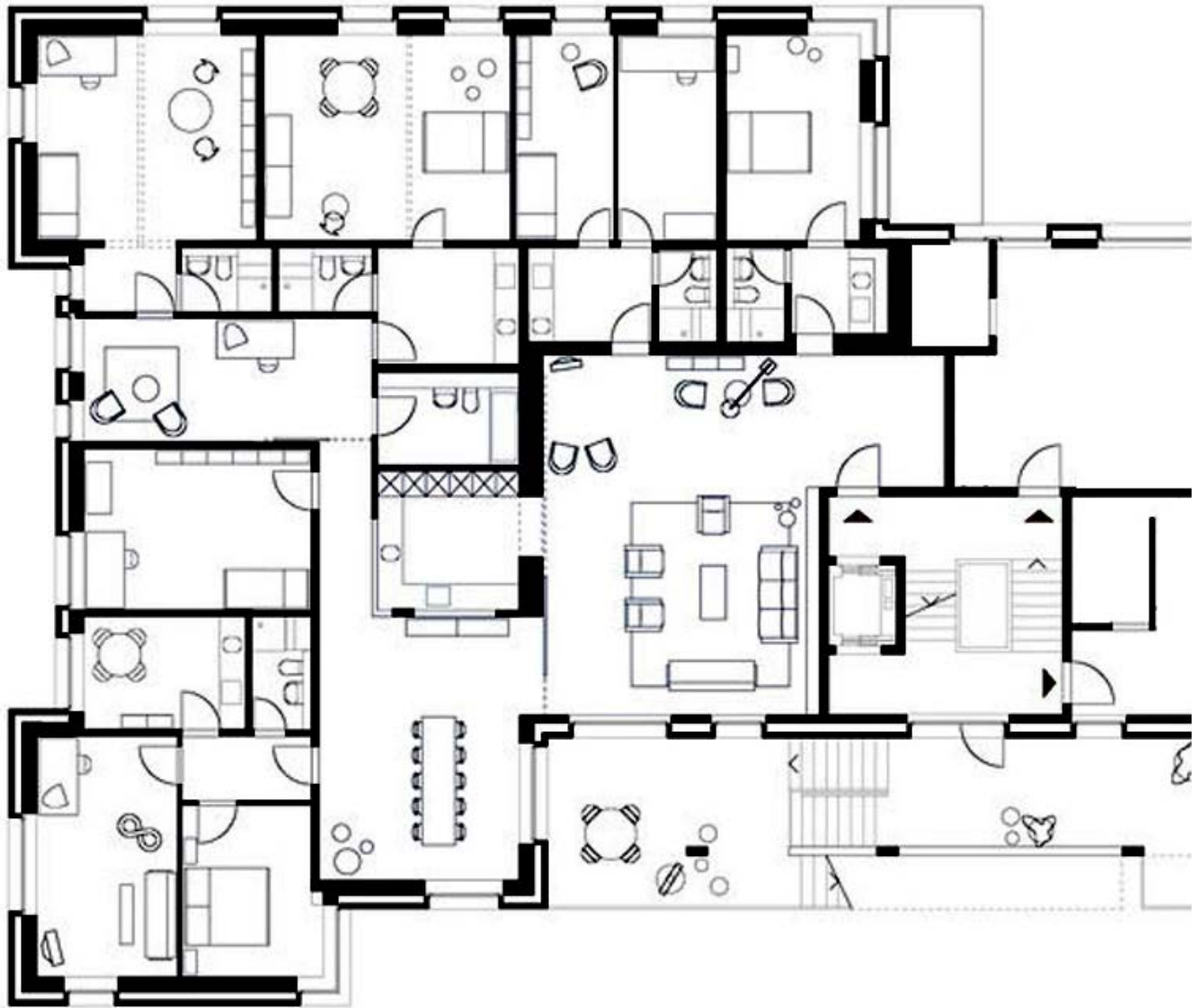


Kraftwerk II

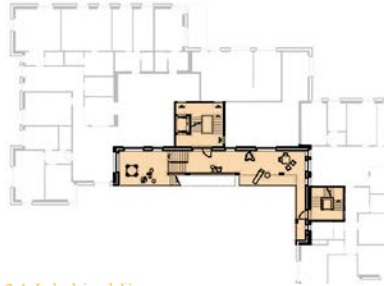
approach to household structure. Instead of small individual apartments, this building clusters six to eight suites around large communal social areas. In this type of arrangement large households, including those with non-traditional relationships, can be accommodated. By promoting large households this project sets up homes where each person has access to an abundance of resources, both in the people they live with and in the great quantity of common space. However, the project also provides privacy and personal ownership over each independent suite. In this project the interstitial strategies allow people

to live together by providing both connection and delineation at the same time.

In Kraftwerk 2 the primary entrance to the apartments is from an exterior stair where the landings double as used patio space. Because the apartments are quite large, only a small number of total apartments exist in the building, meaning a small number of front doors. By clustering these entrances all to the same system of stairs and landings, neighbors have opportunities to bump into each other and experience passive encounters. In this way the circulation is interstitial just



KRAFTWERK 2, Adrian Streich, Zurich Switzerland, 2011



3.1 Inhabited Entry



3.2 Common Space



3.3 Variety of Gathering Spaces

as the precedent in the previous section. In Kraftwerk 2 these outdoor landings are also interstitial in that they bridge the interior of apartments with the rest of the world by creating outdoor patios onto which the living and dining areas can spill over (diagram 3.1). These patios have views of other people in the space below and neighbors using the stair. The activity enlivens the

patios, while the patio buffers the interior living spaces. A neighbor would never accidentally wander by the dining room window because the patio furniture signifies that landing belongs to that apartment, not to the public circulation.

The interior spaces are also designed in a way so that the common areas are open and accessible to everyone who lives there, but different tasks and happenings have clearly defined areas (diagram 3.2). The apartment has many areas for people to assemble on different scales and each are clearly defined by the space and furniture (see diagram 3.3). This gives the opportunity for interaction without forcing anyone to participate or having the group disturb people simply trying to move by them. The kitchen for example has four walls and is clearly defined, but the wall space above the counters was then opened up creating a pass through condition to the dining room. This means that the



Dining Area Area, Kraftwerk II



3.4 Transparent Walls

counter and wall are a physical barriers but it would be nearly impossible to occupy one room and be unaware of what is going on in the other (diagram 3.4). This arrangement means that the residents have choice when deciding to what degree they wish to participate in communal activities. If an adult comes home and the children are crafting on the dining room table, that adult can chose to ignore them entirely and never leave the circulation path, to go to an adjacent space and watch them passively, or to enter the dining area and interact with them directly. By affording this choice the interactions become shaped by the type of relationship that is desired and the specific circumstances surrounding each interaction. If any one person is



Patio and Stair Landings, Kraftwerk II

having a bad day they can decide on their level of interaction depending on their personality. They could have solitude, a distraction, or a hug; all three options are available to them.

The success of Kraftwerk 2 is in that the interstitial strategies create mutually supportive relationships. When two people share a kitchen they also share the knowledge and wisdom that they have gained by cooking throughout their lives. This could be particularly significant in diverse or inter-generational households. For

The Application of Interstitial Strategies

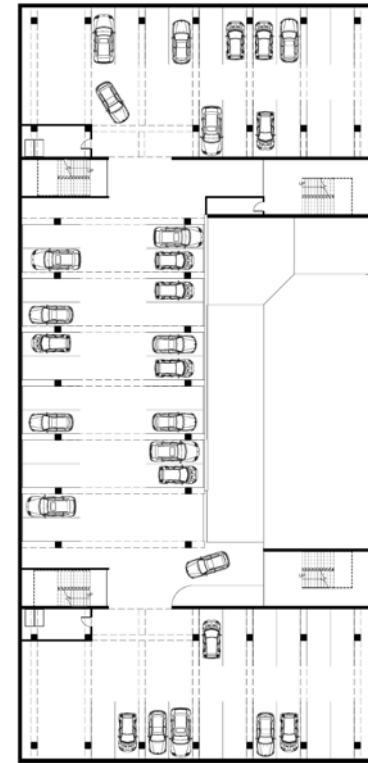
The goal of the research was to create, or at least contribute to, a model of inter-generational living. All of the ideas and strategies discussed can inform design. Specifically, this research informed the design of a theoretical housing project in the historical urban district of Seattle. The site, a 27,000 square foot lot, has enormous potential for sustaining healthy and active residents. In addition to having access to public transportation and urban infrastructure, Seattle also offers a culture that supports innovation in healthy living and sustainability. Such is an ideal environment for aging populations that wish to be active and involved and for architecture that supports inter-generational communities.

Based on this research, a project was proposed which used interstitial strategies on three scales to create a socially supportive group of residents, where inter-generational households could flourish. This proposal is a mixed use building with the primary function as residential apartments with supportive commercial functions on the ground floor,



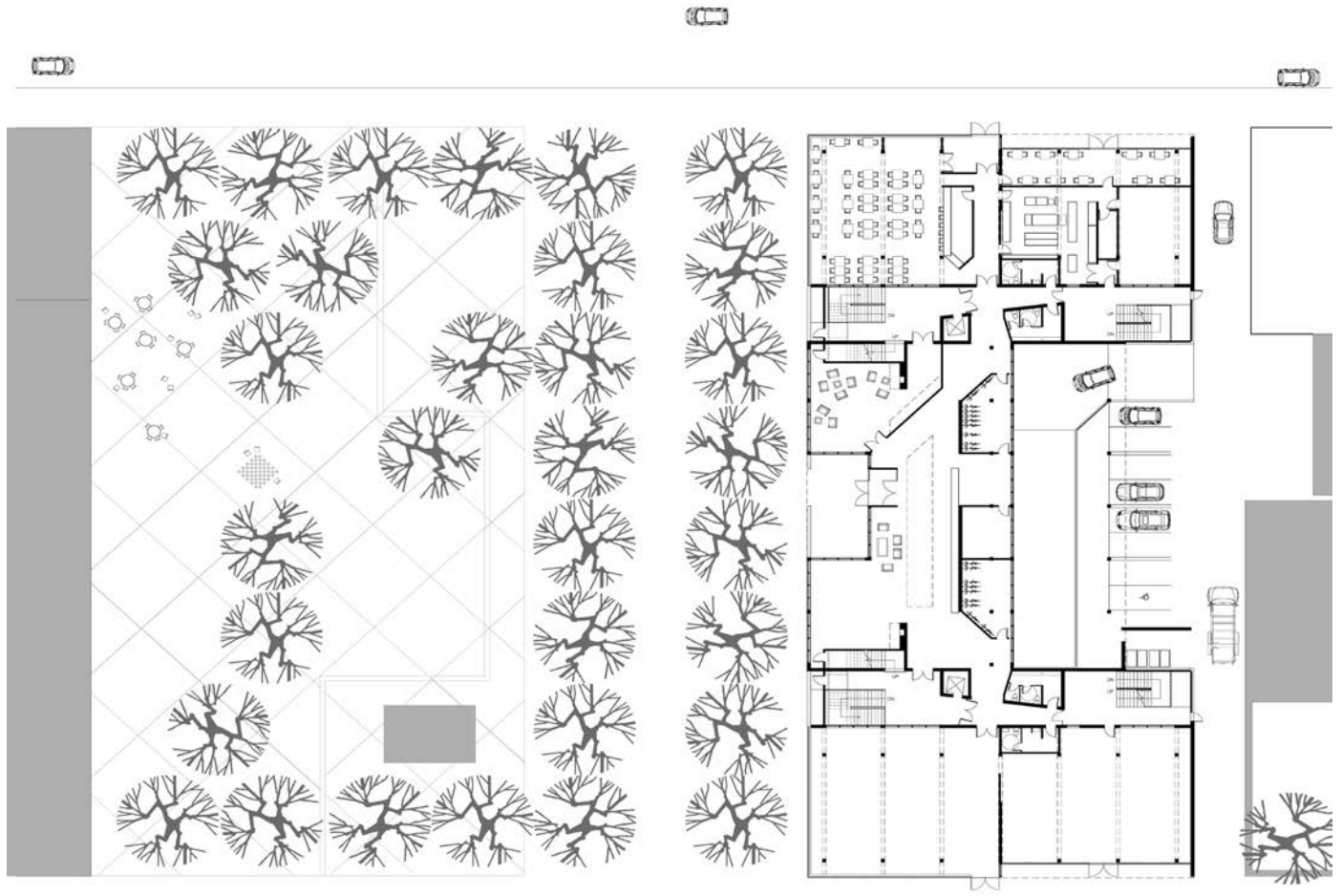
including building staff offices, a restaurant, flexible retail, and public parking. The site is located adjacent to an urban park. Here the main entrance is designed in such a way that the park and surrounding urban fabric can enliven the building and create an active entrance. In addition, the proposed building also has celebrated circulation that is thought of as habitable space. The stairs and landings offer vantage points for observing the park and private gardens below, but they also function as decks and patios where the life from each apartment can spill out into the lively activity of people moving throughout the building. The proposed building has eighteen apartments, each a cluster of several suites (approximately 100 bedrooms). And, of course, all of the suites have ample access to the common areas.

Throughout the proposal each space focuses on the needs and requirements of users. The interstitial strategies allow people to come together and form mutually supportive relationships while at the same



Lower Floor Plan (Parking)

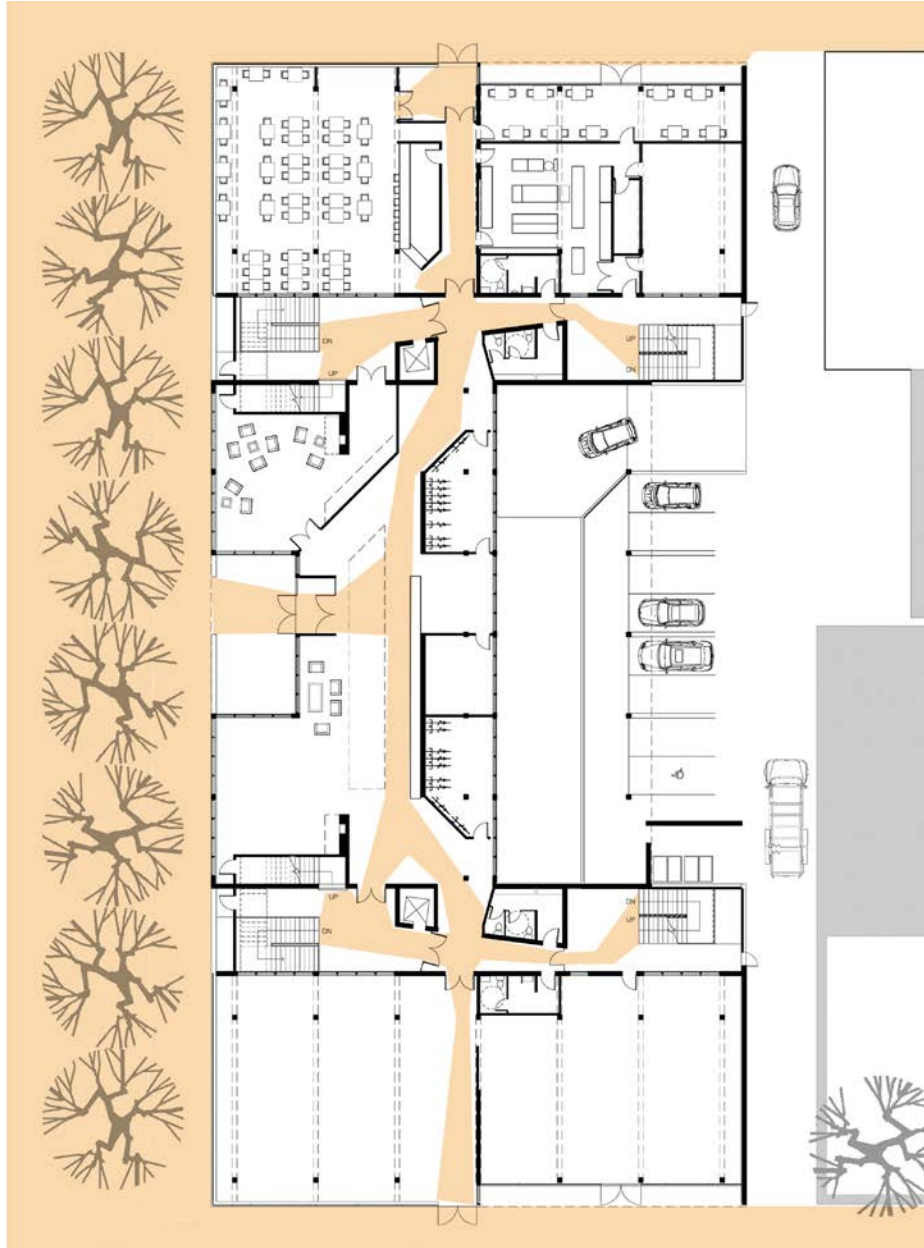
time offering those interactions in a moderated way so that no one activity compromises another. The project offers its residents choice while supporting a structure of inter-generational living. In this way the architecture can positively affect human well-being, allowing individuals the option to pursue active, healthy lifestyles regardless of their age.



Ground Floor Plan



South Elevation



Bringing life into the building, meaning people, events and activities, can help keep people involved in their communities and keep them physically and mentally active. In this way the ground floor can support a mutually beneficial relationship between the building and the city and the residents of each.

Movement Through Building

The life of the street and park are brought through the building on the main floor. As people circulate, they get to see the activity and if they choose can participate.



Transparency to Allow Observation

Transparency around the seating area, that does not compromise enclosure, allows people to observe other people and activities.



Places to Gather

Seating exists in several places, with different orientations and different scales, and thus a wide range of social encounters can be accommodated.



Restaurant

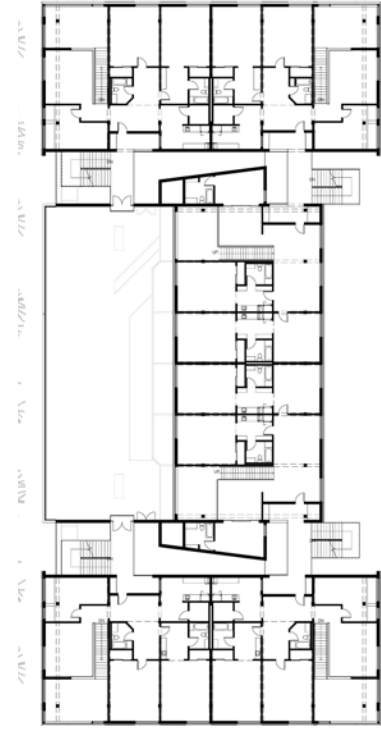
The building incorporates a restaurant on the ground floor as an amenity to residents and the greater community.



Entrance Lounge



Second and Fourth Floor Plan



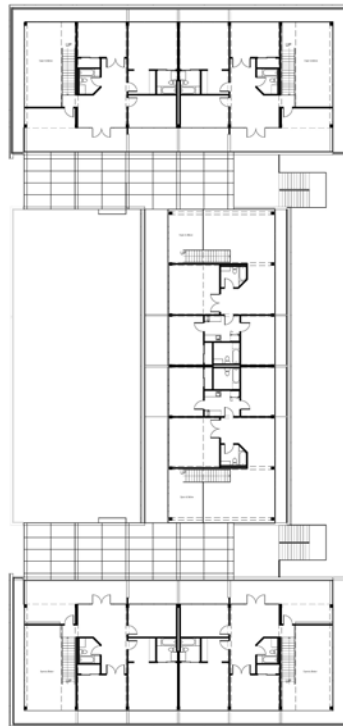
Third and Fifth Floor Plan



West Elevation (Occidental Park)



Sixth Floor Plan (Penthouse)



Seventh Floor Plan

Project Biography

200 Occidental Ave S,
Seattle, Washington 98104

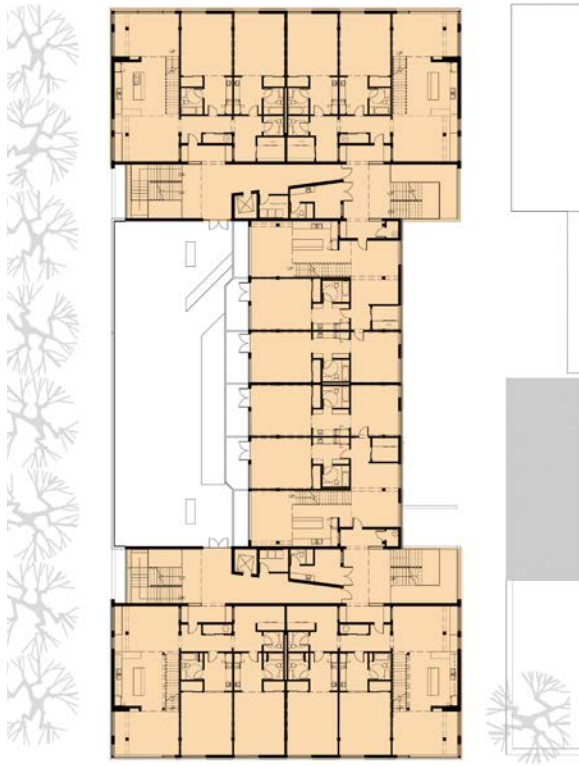
18 Apartments
~100 Bedrooms

95,000 leasable square feet, 80%
118,000 total square feet

7 Floors, above ground
112' by 240' footprint



East Elevation (Back Alley)



Embracing Form

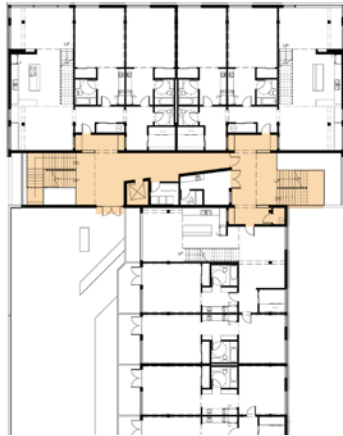
The building pulls away from the street to create protected outdoor space which transitions what is part of the building verses what is not.

Life from 2 Sides

The form allows each apartment has access to light, air and views from at least two vantages.



Overlooking Central Space



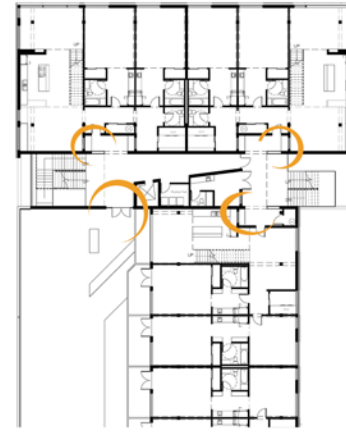
Inhabited Circulation

The primary entrance to the apartment is from an exterior stair where the landings double as used space.



Grouped Entries

Circulation is efficient and the potential for chance encounters is increased.

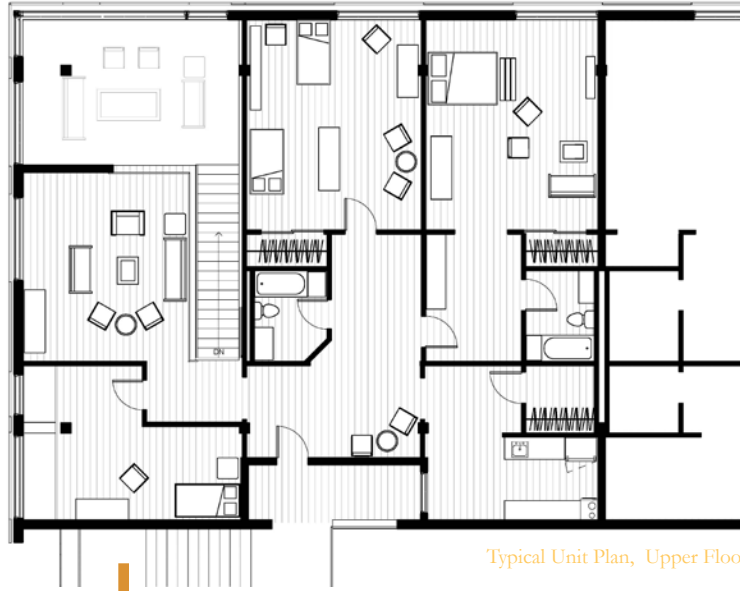


Gathering Places

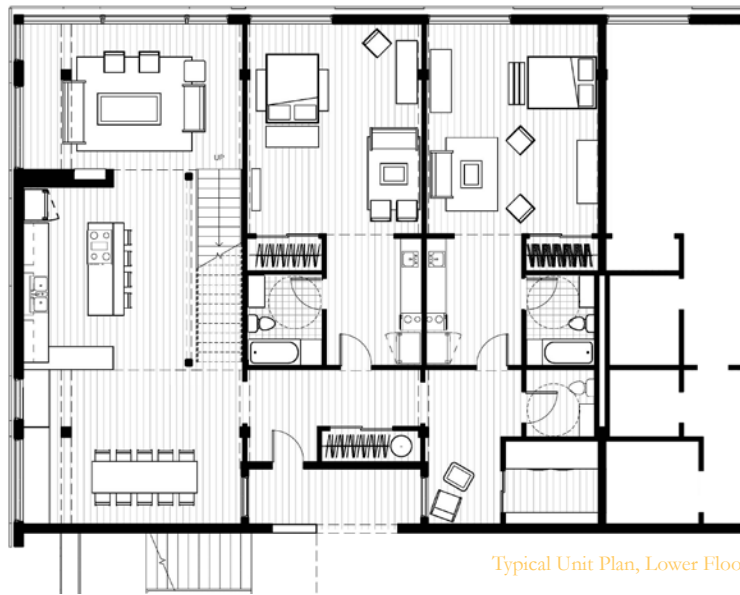
Seating exists in several places, with different orientations and different scales, and thus a wide range of social encounters can be accommodated.



Building Section



Typical Unit Plan, Upper Floor



Typical Unit Plan, Lower Floor

By clustering suites together into large apartments, this scheme support extended families and non-traditional households such as a roommate situation. By providing for large homes, his project supports relationships where people can share space and interact with each other.

Accessible Shared Space

The kitchen, living, and dining are each their own room, but these spaces look into each other, inspiring people to join activities. In addition, movement through these spaces is encouraged and possible without disrupting any activities taking place. The intention is that everyone who lives here knows what is going on in the shared spaces and they get to choose their level of involvement.



Gathering Spaces

The shared space is open, but it also accommodates many different activities and ways in which residents can use that space.



Transitions To Private Spaces

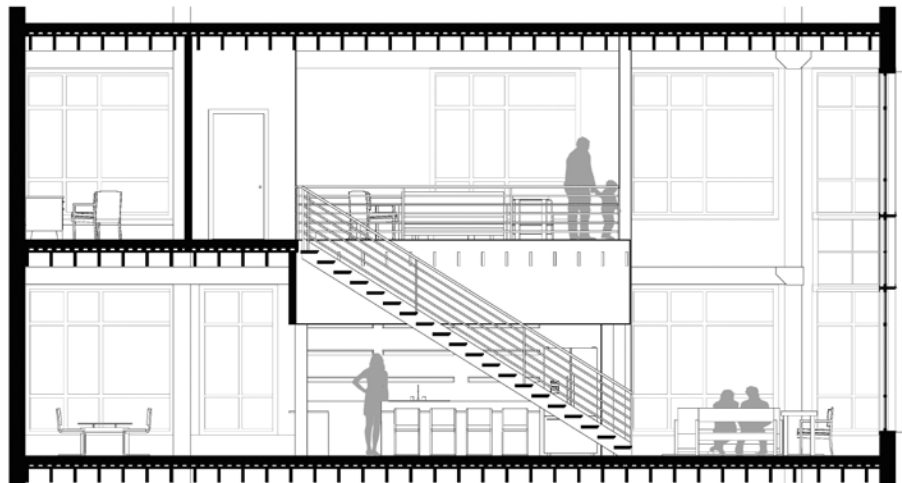
The entry to each suite is not from an active shared space. Also, each suite enters through a kitchen not a living space.



Fireplaces

Each apartment, as well as the entry and lounge on the ground floor has a fireplace to gather around.

Section Through Unit's Shared Space



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Shared Space Within Unit