

GRADUAL COMMUNITY INTERACTION SPACE

Chengpei Jin

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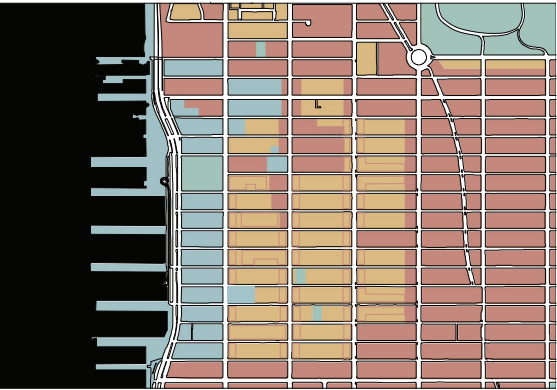
Introduction

Hell's Kitchen is known as being one of the few remaining Manhattan residential neighborhoods, particularly in the Midtown area, to still feature primarily low-rise architecture. The area enclosed by 43rd and 56th street, and 8th and 10th avenue, is a so called preservation area. It was set because of two-fold reason according to the NYC Planning (2005), one is to preserve those low-rise architecture and make it free from the effect of new development, the other is to preserve and strengthen the residential character of the community and to maintain the mixture of income groups in the area¹. It is indeed a livable area considering of the building scale, and the government try to keep its residential character and make it a stable and active community. However, this old residential community now face many problems under the tide of gentrification. There is always need for more affordable housing opportunities. But those old tenement house and existing living unit types are not resilient to the demographic change and personal needs, especially when facing the aging situation. The single-function-street and enclosed block typology could not provide enough space for diverse communal activity and social interaction, which is negative for social cohesion with the change of interpersonal relationship in modern society. It is necessary to make diverse collective space melting with living areas, so as to activate this community.

Problem statement

-Lack of suitable living units when facing demographic change

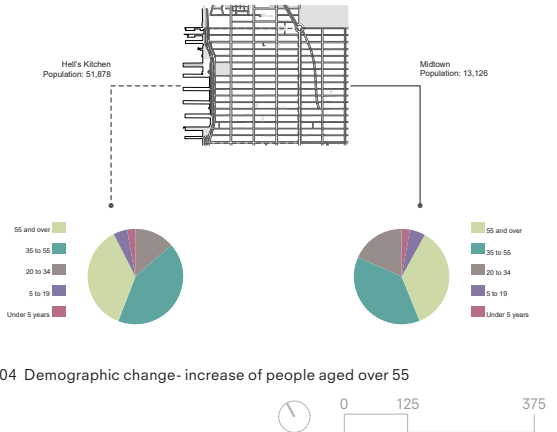
The Hell's Kitchen area one of those where the population aging progress is very fast in Midtown. Those who aged over 55 have taken up about one thirds of the population in this area and the proportion would keep increase in the future. In order to make the community stable, it is necessary to try to make them stay longer and aging in place, other than move to another place because needs could not be satisfied. The role of elderly people aged above 55, who have entered the third phase of life, is quite important. At this age, although health and care problems are more prominently forthcoming, elderly now are more of potential than those before. In fact they are the group who stay in community for the longest time every day compared with younger people. They could function as the anchor of the community to connect social groups together by create gradual interaction space based on their staged interpersonal relationship. Design serves finally for residents, so the living requirement should not be ignored.



02 Zoning regulation in Hell's Kitchen



03 Affordable living units taken up by Airbnb especially in preservation area



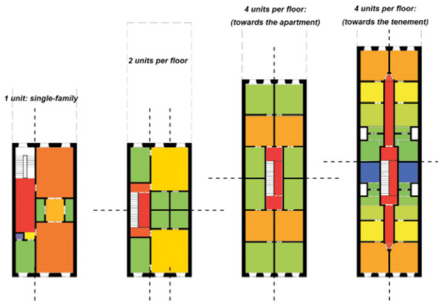
04 Demographic change- increase of people aged over 55

Elderly at different age stages have different need, but housing is the most basic problem. They are one of the fragile groups when facing the affordability problem of housing. The largest concentration of affordable SRO (single room occupancy) housing in this living neighborhood lies between 8th and 9th Avenues from West 42nd to West 57th Streets. In this area, 62 buildings contain nearly 2,200 SRO units. West. 51st Street alone contains 12 buildings with a total of 574 units and West 46th Street has 21 buildings with 289 units. This type of living units is suitable to hold singles and couple, but is easy effected by Airbnb and tourism. Also facilities in these old tenement housing is not friendly for seniors. The future housing development in this area does not considering this problem too much and the existing elderly living facilities in this area is not enough to meet the need. In NYC housing 2.0 (2017), it mentioned the government aimed to renovate existing residential buildings for humanistic concern, and consider seniors first when introducing new living units in the city².

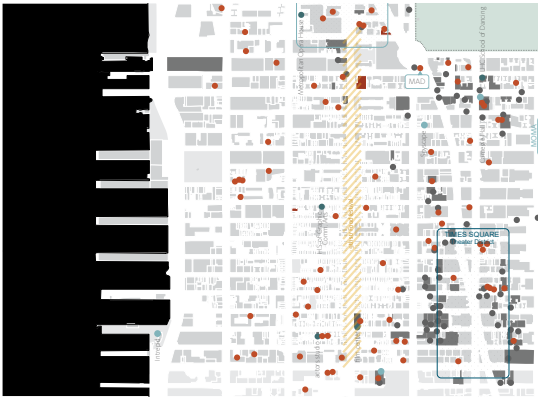
- Lack of diverse interaction space because of building and block typology

When seeing this community which is losing social cohesion, building typology and block typology might account for it. For those old tenement house, there is no interaction space inside, living units are connected with short narrow corridor, and there is no public service in the building. Although there are courtyards in the block, however, it is so enclosed that only the residents in this block could get in there. The type of interaction space a building and residential block can provide is single and enclosed. The vitality inside the block could not be connected with more public vitality.

Lynch (1960, p.68) once defined vitality as the degree of supply that a city can provide to meet the various needs of residents in an environment without other factors³. Jacobs (1961, p.120) pointed out that people in the city interact with each other, the interweaving and connection of places, and the diversity of urban functions can provide an endless driving force for urban vitality⁴. The existing vitality in Hell's kitchen is mainly focusing along those north-south Avenues, especially the 9th Avenue, which has many retails, restaurants, sidewalk café and other services for community. However, there is few commercial activities along the streets sides except the corner connecting avenues because of the zoning regulations about commercial overlays in the residential area. Regulation limits the commercial density on the street level, and only a few public buildings or institutions now exist on the street, showing no attraction for pedestrians because the street interface is dull and there is no place for them to stop and enjoy community life. During daytime much space in the middle section of street is not fully used to create potential chance for social communication and activity. By comparison, people could integrate their life in diverse-function space along Avenues, in restaurants, café tables, laundry shops, Wifi stations, etc.



05 Lack of public functions in residential buildings- narrow corridor



06 Lack of public function in residential area compared with CBD



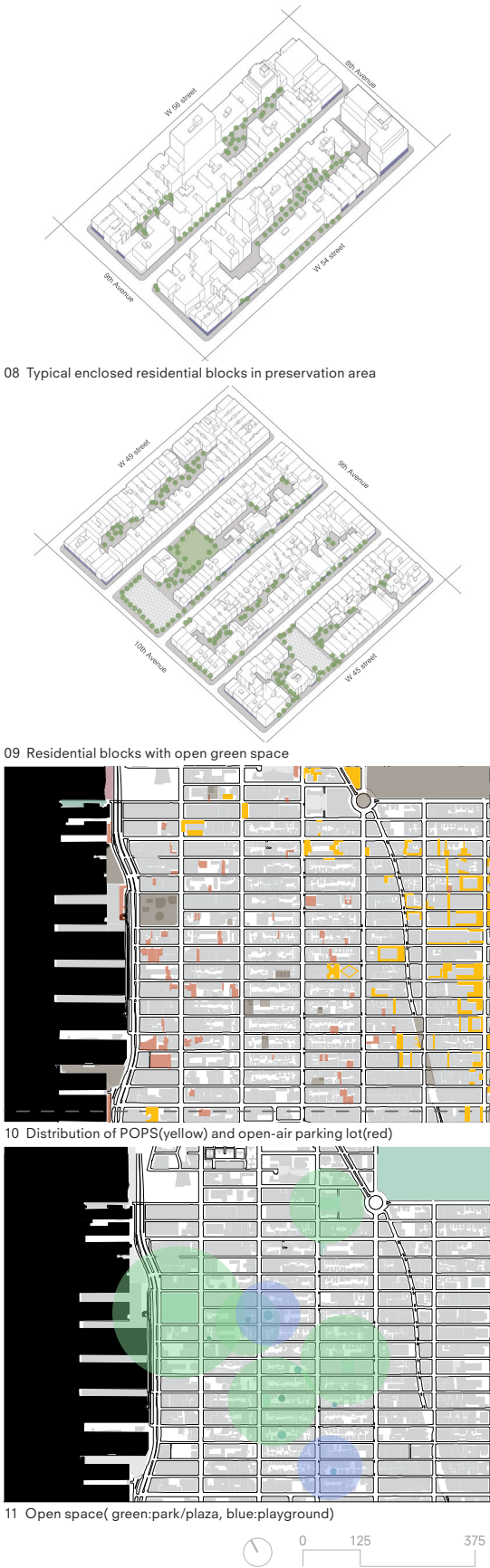
07 Uneven vitality distribution- Avenue vs. street

Activate residential blocks

Proposal- design gradual interaction space

It is very common for such an old living neighborhood that there is single type function in residential street-side properties and building use functions are limited. A typical manifestation is the continuous development of street restaurants, which not only brings a lot of kitchen waste, affects the image of street hygiene, but also causes office and cultural functions to fail to organize together with street retail. According to Gehl (2002, p.51-52), the richness and diversity of public functions and types of business will slowly generate spontaneous activities of residents, while the single type of functions and types of business will only reduce the attractiveness of open spaces in residential streets, and gradually reduce the spontaneous activities of residents⁵. So the current renewal and redesign of this residential area should not only focus on the improvement of the interior living environment, but also on the organization of residential, commercial, office and cultural functions in different scale, from living groups to blocks. These functions exist through residential groups, public service centers, cultural facilities, and shops along the street, thus forming different scales interaction space in the community.

Unlike many privately owned public space (POPS) in the theatre district, which allow people to stay and provide diverse walking choice and interaction space for pedestrians, in residential area, the street interface is relatively solid and many public buildings do not allow trespassing except users, let alone providing interaction space for people to stop, stay and gather together along these long streets. Street space is a linear urban open space, which has two main functions: one is to assume the function of transportation; the other is to provide a place for public interaction activities. However, in actual life, many people's concept of streets is still at the level of traffic line, ignoring its function as a public space. Alexander (2002, p.25) believes that streets are places to stop and should not be used only for traffic⁶. In addition, Jane Jacobs (1961, p.29) mentioned that streets and the sidewalks on both sides, as the main public space of a city, are very important organs⁷. In everyday life, streets are the link between buildings and the place where people interact with each other. After all, the open space on the street like plaza, arcade is to create a variety of possibilities for people's interaction. People's interaction is the inherent requirement for the city to show its vitality.



Walking is the oldest way people travel. For short-distance travel, if the movement distance is within the range of 400-1000 meters, walking has its unique advantages: First, it can complete multiple travel purposes and activities at once, such as shopping, recreation, exercise, socializing, etc. And the form is arbitrary, not restricted by time and space. A good walking system and open space along streets promote intimate interactions with community residents, and neighborhoods become harmonious. The pedestrian space can also create a sense of stability and belonging, and can also meet the needs of people who want to grasp a clear material living environment. However, majority blocks in this area lack of the above elements.

Existing open green space in hell's kitchen contains two main parks, several community gardens and playgrounds, but all of them are enclosed by fence and have limited open time period. What's more, they are separate and do not form a continuous system. These places could also function as a community interaction center where residents could show their free participation in enjoying outdoor films, doing charities or other cultural programs. However for those community garden, they are not that open to the public not only because they are enclosed by fence, but also they could only be access by key, which means only local people could use this space. However, to design an attractive open space, local residents and pedestrians should be both taken into consideration. In 2015, the NYC launched 'Parks Without Borders', formalizing standard park design principles to make parks more inviting, accessible, and connected to the surrounding community. But in hell's kitchen, it still needs time to improve. From the spatial aspect, these open green space is positive to add diversity on interaction space.



13 Public space (plaza/ park/community garden) function as interaction center



12 Entertainment activity in playground

From the perspective of expanding the scope of public services and improving the quality of public services, the open spaces in the streets of old residential areas should achieve more integration of functions and formats, and increase the openness of public spaces. The improvement of public space can also make up for the dilapidated and aging shortcomings of other public service facilities in old residential areas. The government has recognized the relations between the city's natural, recreational, public spaces and the myriad ways which could support and enhance them. In the NYC 2050 Goal, they mentioned that city streets comprise 27 percent of New York City's land area, and function as public spaces essential to urban vitality and healthy lifestyles⁹. Well-designed pedestrian plazas enhance safety, walkability, and accessibility while also providing communities with space to gather. Government will create more public space to allow more New Yorkers be able to enjoy open spaces and a variety of cultural events and activities that bring communities together, contribute to better health, and foster social cohesion and community development.

Conclusion

For a community that seeks diversity needs, public functions that are available to those living in it should be more and more available. So these facilities are part of the lifeblood of neighborhoods, and when properly located along well-designed streets that welcome pedestrian activity, can create community focal points and meeting places. When the composition of public space is diverse, it can bring different people flow at different times, and keep this space from morning to night, while the monotonic surrounding environment will make this space empty for most of the day. Similarly, space also

needs different use groups to increase vitality. Only the economic and social class diversity of the surrounding people makes sense. Public space can slowly accumulate popularity in places rich in urban life. The Hell's Kitchen area should keep its residential character and provide more public function so as to build a stable and active community connecting the waterfront and the core Midtown in the next decades. The development unlock the waterfront is necessary, however, the in-between main residential area, which is the so called 'preservation area' should not be ignored and need to be renovated and activated as well, otherwise the 'connection' would have no meaning.

To conclude with the problems and potentials mentioned before, in order to make full use of the community space, the role of elderly people aged above 55, who have entered the third phase of life, is quite important. In fact they are the group who stay in community for the longest time every day compared with younger people. They could function as the anchor of the community to connect social groups together by create gradual interaction space based on their staged interpersonal relationship. Besides, those young-old elderly 'anchors' could realize their new social value by employing them in the related functions and taking care of each other. To conclude, Re-defining the value of elderly, which means let them do what they could do, so as to realize co-care, co-living and create gradual community interaction space is the main direction of activating the old residential area in the design project.



14 Collage of gradual interaction space in a residential complex- from living groups to blocks and streets

Source

1
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Gehl, J. (2002). *Life between buildings*. Beijing: China Architecture & Building Press.

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Picture Source

01 Jin, C. (2019), Typical combination of upper dwelling and street-level commercial along Avenue side [Phothgraph].	11 Jin, C. (2019). Open space mapping, data retrieved from NYC ZoLa
02 Jin, C. (2019), General zoning mapping, data retrieved from NYC ZoLa	12 Jin, C. (2019). Entertainment activity in playground [Collage].
03 Siritip, N. (2019), Airbnb in Manhattan [mapping], Retrieved from group folder.	13 Jin, C. (2019). Public space (plaza/ park/community garden) function as interaction center [Collage]
04 Jin, C. (2019), Demographic change- increase of people aged over 55 [Diagram], data retrived from NYC Open Data.	14 Jin, C. (2019). Gradual interaction space in a residential complex- from living groups to blocks and streets [Collage].
05 Jin, C. (2019), Typical housing plan organization [Diagram].	
Fig.06 Sánchez.Sánchez, V. (2019). Formal cultural spaces mapping. Retrieved from group folder.	
07 Jin, C. (2019). Unenven vitality distribution- Avenue vs. street [Collage].	
08 Jin, C. (2019). Residential blocks axonometry.	
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10 Jin, C. (2019). POPS and open-air parking lot mapping, data retrieved from NYC ZoLa.	

CO-CARE OASIS

Mutual Benefits of Intergenerational Engagement
Chengpei Jin

Narrative

The Hell’s Kitchen area should keep its residential character and provide more public function so as to build a stable and active community connecting the waterfront and the core Midtown in the next decades. The development unlock the waterfront is necessary, however, the in-between residential area, which is the so called ‘preservation area’ should not be ignored and need to be renovated and activated as well, especially on the street level, otherwise the ‘connection’ would have no meaning. The existing residential area lack of different scales of interaction space from buildings to blocks. Building typology, block typology and zoning regulation result in the people isolated at home, uneven distribution of vitality in the community space, dull street interface and lack of social cohesion. At the same time, existing living units are not enough to hold the increasing population and not diversified to satisfy different need when facing the change of demographic, especially the aging situation.

For a community that seeks diversity needs, public functions that are available to those living in it should be more and more available.

So these businesses and facilities are part of the lifeblood of neighborhoods, and when properly located along well-designed streets that welcome pedestrian activity, can create community focal points and meeting places. In order to make full use of the community space, the role of elderly people aged above 55, who have entered retirement period, is quite important. They take up one thirds of the population in this area and the proportion would keep increase in the future. In fact they are the group who stay in community for the longest time every day compared with younger people. They could function as the anchor of the community to connect social groups together by create gradual interaction space based on their staged interpersonal relationship. It’s necessary to re-defining the value of elderly, which means encouraging them to do what they can, for example: taking care of each other, sharing their wise with youth, accompany children and so on. In this way it is possible to foster a diverse and active intergenerational community where residents benefit mutually.

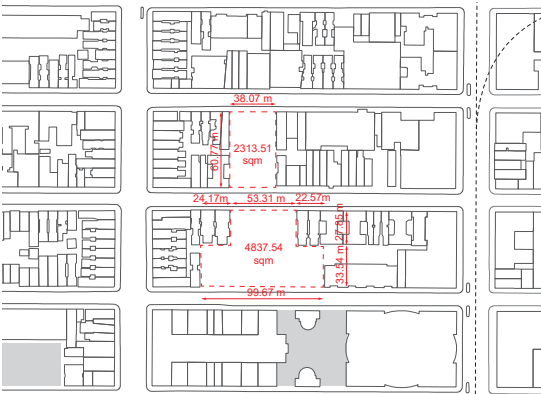
Site location and analysis

The chosen site locates in two blocks between 8th and 9th Avenue, West 50th and 52nd street, including two open-air parking lots, an enclosed community playground, and several existing buildings. The total lot area is 7151.05 m2 (Fig.02).

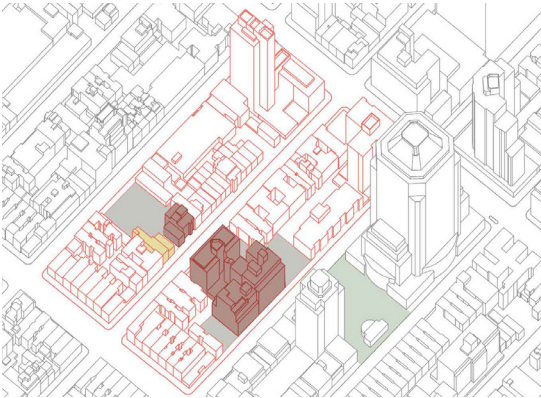
NYC has a program called ‘Safe Street for Seniors’(2008), which focused on creating a safe traffic environment for elderly and provide more chance for seniors facilities projects’. The chosen site locates in one of those program areas which is between 9th and 7th Avenue and starts from West 53rd street. Besides, the site is opposite the One Worldwide Plaza, which is the one of the very few POPS near the residential area. The landscaping of the public plaza contains over 40 trees and numerous plantings, and public seating is available all year round, where people could stop and stay. This type of open green space shows great opportunity for spontaneous activities in community, and could encourage large-scale social interaction together with the design project. It could also be an in-between point connecting the open public space from the waterfront to Central Park or Times Square.

In addition, the site is quite near the core of Midtown, it is convenient to both get into the vibrant CBD area and walk to future new development on the waterfront side easily. This area now function as a transfer hub, which has the 50th street subway station, bus station and Citi-bike spot. When considering elderly’s mobile ability, the site provide them with easy access to public transportation (Fig.04). Besides, it not only makes people travel further conveniently, but also bring more public people flow, thus bring more chance of social contact. Although sometimes house price might be a little bit expensive if it is near the transfer hub, but taking ideas of co-care, elderly-employment and shared living space into consideration, it could reduce the price to some extent. What is more, there is still vacancy within the service radius area of existing elderly facilities in this community. If the project should locate in this site, it would make up this service gap.

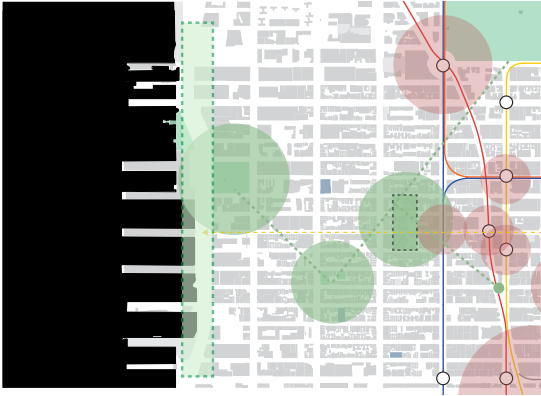
The two parking lots and the playground which is not frequently used are able to be designed for project to densified this residential area. However, there are still six existing residential buildings in the chosen site, which include two high-rise and four low-rise (Fig.03). The organization of living areas is almost the same: narrow corridor linking and no public function and interaction space inside. It is possible to do transformation work inside two high rise buildings but difficult to apply unified design strategy to them both inside and outside. When it comes to low-rise buildings, two of them is old tenement house but of no special historical meaning. Considering their general age value and inflexible structure, it is not efficient to do transformation work. It still needs some massing study of possible project to see possible intervention strategy and then decide whether to demolish them or not.



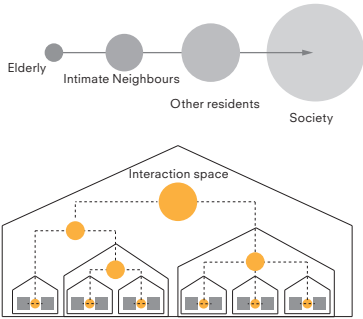
02 Site location and measurement



03 Current situation of the site- six buildings in total, two are historical



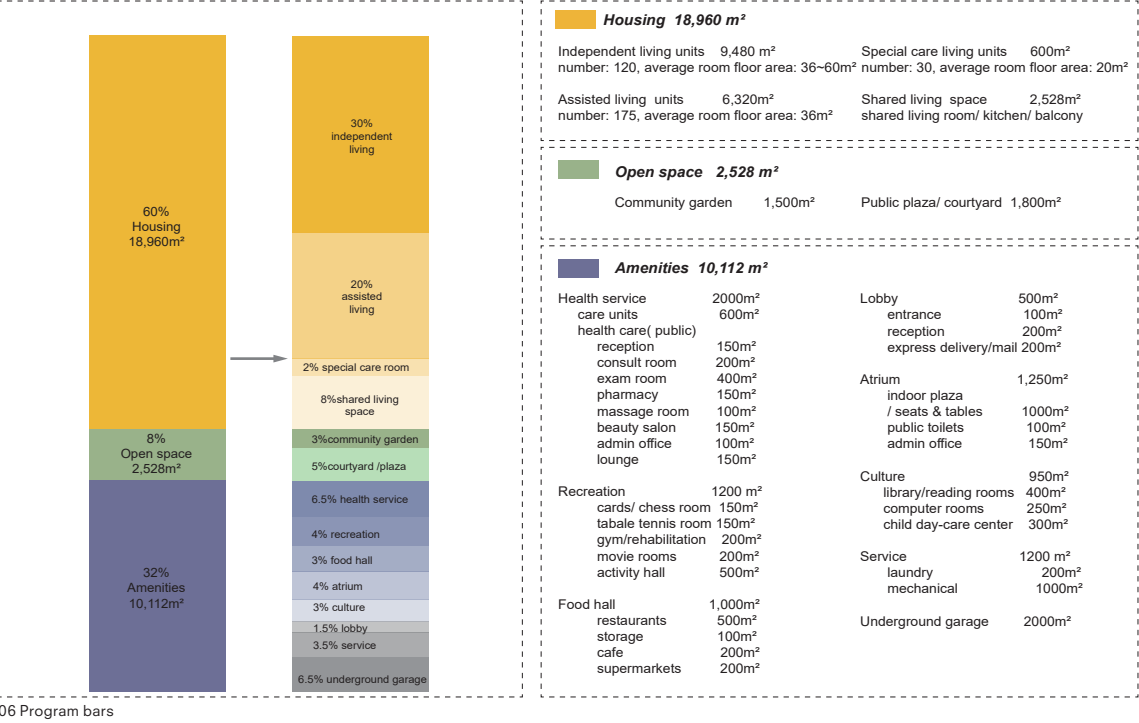
04 Existing transferhub and proposed landscape system



05 Staged interpersonal relationship and gradual interaction space

Building typology & program

How could a residential complex and living environment be designed for people that have already entered the third phase in life that facilitates the vision of longer independent living or co-living for the future? The building should be designed for people that enter the third phase in life, who have reached around an age of 55 years old. At this age, people start thinking about their retirement, although health and care problems are more prominently forthcoming, elderly now are more of potential than those before. So how could elderly create new social value is still very vital. The building should be designed to facilitate longer independent living or co-living. This is related to the idea of the government: older people living longer at home and aging in place. The residential building should be designed in relation with the living environment, which is important to be able to facilitate longer living and social interaction. The design should include public and communal functions, related to the needs of the target group and the community.

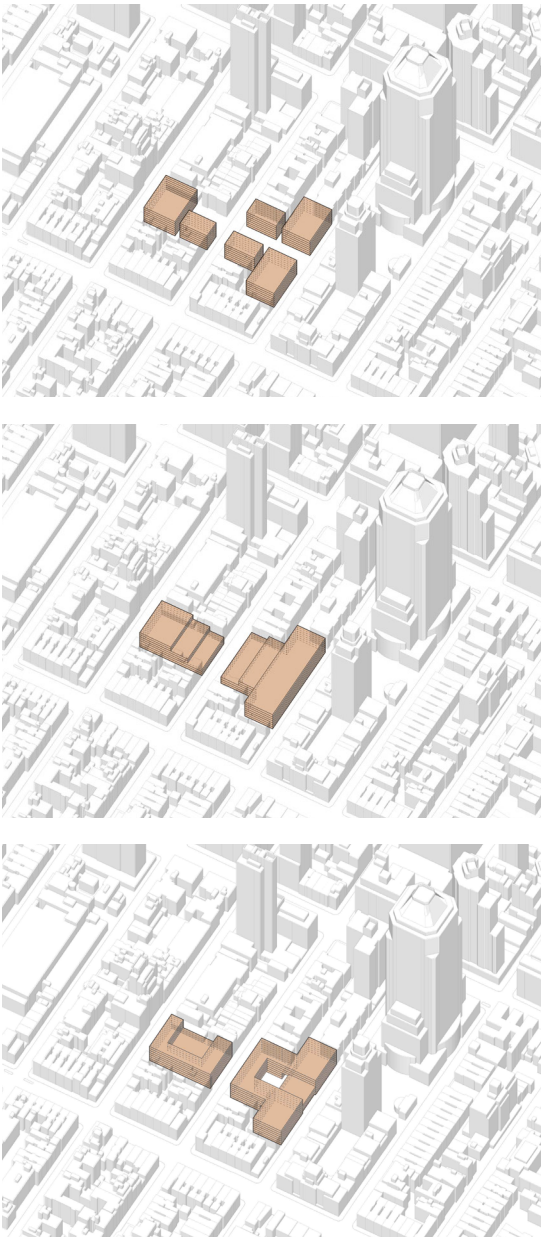


The project will be a intergeneration community containing two main parts, one is collective living space mainly for elderly people, together with other housing opportunities to hold residents who live in those six buildings in site. The other one is shared recreation space with the public, where allows more intergenerational engagement. The design of open green space might also be related with the landscape system in the Midtown area. I would like to design the different scales of interaction space between living units, neighborhoods and city. Through case study, from traditional elderly living or caring projects to worldwide project which show modern idea of multifunction and change of target group, generally, the project would be divided into three main programs: housing, open space and amenities. Through case study of proportion of each parts and adjustment to the average calculation according to the design idea, the detailed division is here.

Housing part could be divided into independent living, assisted living, special care and shared living space, which target at different groups of elderly and other residents. Also, these diverse living units could satisfy needs of elderly in different age stages, which helps them stay in one place for longer time and not to move to another place during the aging progress. Those young-old elderly of good health, or other residents could take care of their neighbors who need helps. Shared living space like living room, kitchen, balcony or even expanded broader corridor with sitting place, not only function as interaction space, but also reduce the house price and make it affordable.

Amenities includes many more function, to satisfy the need of health care, daily life service, entertainment and social service. For the first three parts, on the one hand, they could meet the needs of the elderly, on the other hand, they could make the complex have possibility of diversified operation and extended value-added property services. For the social service part, it could be combined other three parts. They form a large scale social interaction space where engage residents not only in this complex, but also in the whole community, into social contact. In addition, elderly could be employed as workers there, to realize manifestation of social values and the continuation of social life.

Open green space is also necessary because of environment need of elderly living and landscape strategy in community. In all, considering the max FAR and height limit in order to correspond to this preservation area, the GFA might be 31,600m2.



07 Possible massing study

Organizational Study of Program

In spatial organization aspect, considering the project actually would focus on gradual interaction space, the organizational study would start from small scale to large scale. The smallest scale interaction space might be shared living area like living room, kitchen, balcony or even expanded broader corridor with sitting place. They could combine different types of living units or be used as a separation for different groups. The most common organization types are centralized and semi-enclosed, so as to form small living groups(Fig.08).

The mediate scale interaction space is the community garden and some semi-public service like health care units and recreation rooms. The public activity space in the elderly apartment is a composite space, and the design needs to emphasize the closeness and openness of the circulation of the series of functional spaces. The closeness requires clear traffic flow, adopting a closed loop path, and main traffic route in series with all functional spaces, so that the elderly can be clearly identified and can easily return to the starting point (Fig.09). Openness means that each functional space should be fully open to the main traffic flow route, and the open traffic flow is open to the inner community gardens, which can create a rich and varied dynamic line space experience and visual effects. The combination of closed and open traffic flow organization abandons the traditional practice of one function in one closed room, making full use of space functions, which is not only easy for the elderly to reach, but also reduces the effect of interference on the elderly, and improves the overall vitality of the space.

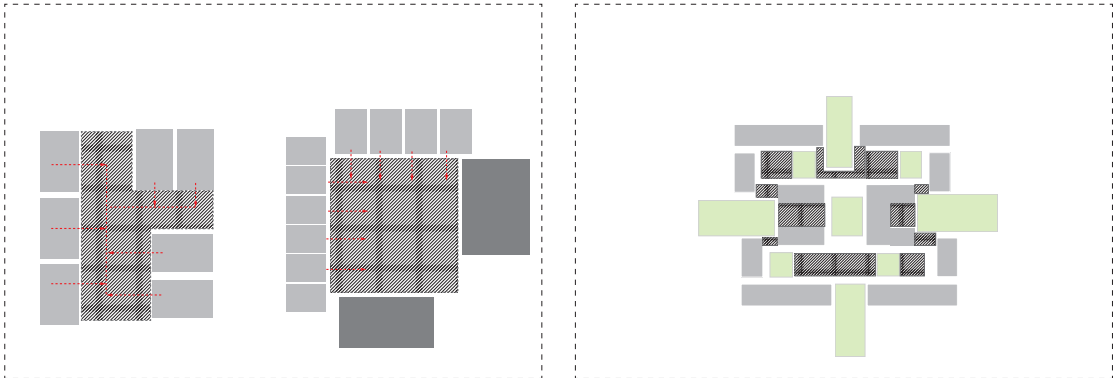
The large scale interaction space is other amenities and open space like plaza. These almost sit on the street level and should be combined with all other interaction space programs. The overall planning and design of a seniors complex mainly adopts two spatial layout modes: centralized independent type and fusion embedded type according to Zhou (2018, p.5-6)². The centralized and independent type is to separate various service function spaces from residential areas and concentrate them in an independent volume. Residential areas are connected to this volume through indoor and external corridors. Such a layout is

conducive to guiding the elderly to participate in concentrated activities, and can ensure the spatial overlap of different activity contents, thereby effectively promoting multiple interactions between the elderly. However, the required space is large, and the route for the elderly to reach the functional service activity space is long.

The fusion embedded type is a vertical layout of various service function spaces and each living part. A service activity space is set up on the lower level of the building, and the upper part is living areas. Such a layout can save land and improve land use efficiency, and the elderly can also easily access the service activity space. The elderly in the same living group can concentrate on activities through the entrance and exit of the living unit and vertical transportation, and fully communicate and contact in daily life by different scale of interaction space, to enhance the overall vitality of the building. However, the integration of the functional layout of the embedded layout is more complicated. When planning the public facilities of the seniors complex, it should be arranged according to the frequency of use of various facilities and the scope of the elderly group, so as to form a point-to-area service network.

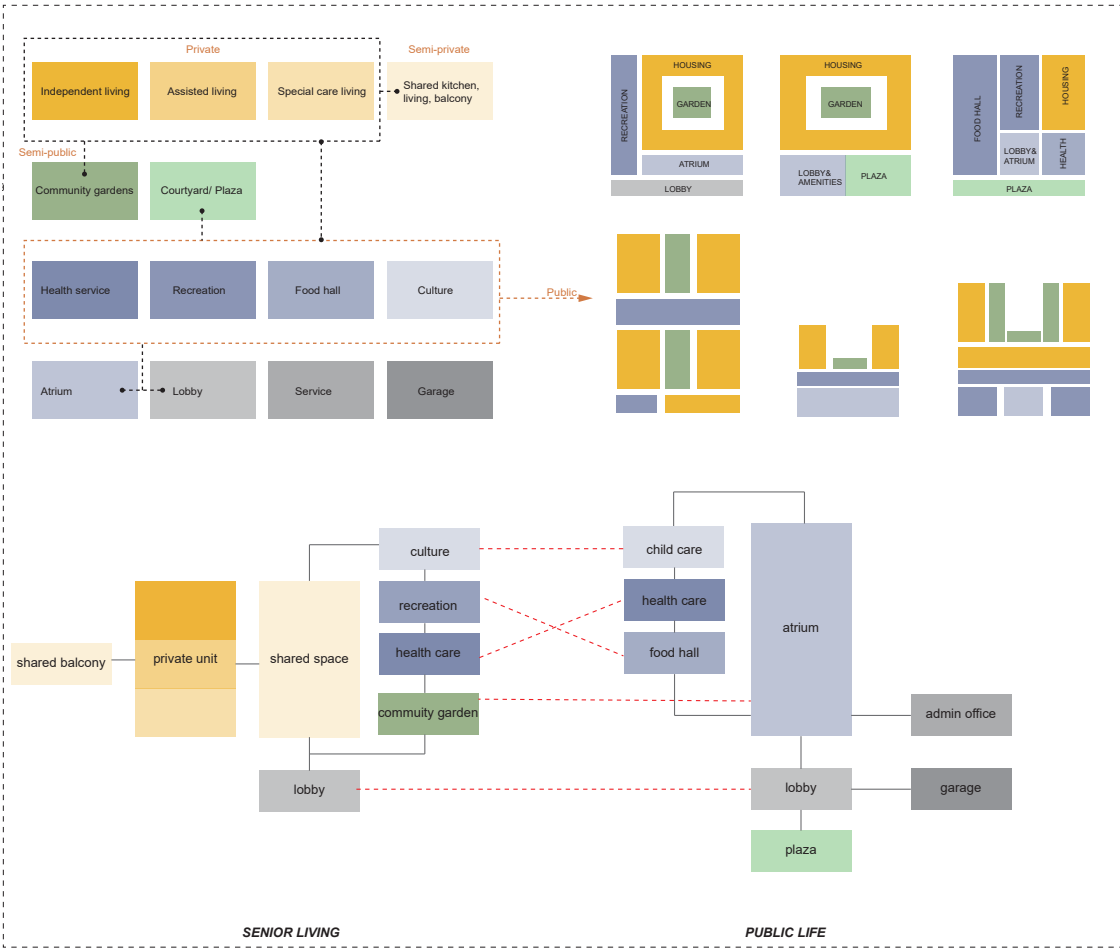
Conclusion- Design Ambition

To achieve this gradual expansion of social interaction, I would deal with the gradual interaction space which could be an transitional space and a link to different scale of social space, which can bridge the gap between old people, other residents and society through staged interpersonal relationship. The final goal of the project is to build an active and stable community by providing such staged social interaction space, where elderly could re-creating their social value and play the role of community anchors to be connected with other residents. The project is to explore and research about the relationship between architecture and human behavior and how they combine tightly with each other. How the project is joint-used with the community is also to be explored as the main body of the design question for the whole assignment in the aspect of street interface design.



08 Organization of small scale of interaction space(shared living area)

09 Organization of mediate scale of interaction space



10 Proposed organization of programs

Source

01
Safe Streets for Seniors. (2008). Retrieved March 24, 2020, from
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Zhou, Y.M. (2018). *Lao nian zhu zhai = Housing for the elderly*.
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Picture source

01
Jin, C. (2019), Generations-living collective space collage
[Collage].

02
Jin, C. (2019), Site location and measurement [Diagram].

03
Jin, C. (2019), Current situation of the site axonometry.

04
Jin, C. (2019), Existing transferhub and proposed landscape
system [Diagram]

05
Jin, C. (2019), Staged interpersonal relaitonship and gradual
interaction space [Diagram].

06
Jin, C. (2019), Program bars [Diagram].

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Jin, C. (2019). Possible massing study[Diagram].

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