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Neo Collectivism

Public Space Design for the Intergenerational Community

SYRACUSE UNIVERSITY SCHOOL OF ARCHITECTURE



Together, heal each other...

MAY 2021

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Figure 1: Vision of Neo-Collectivism

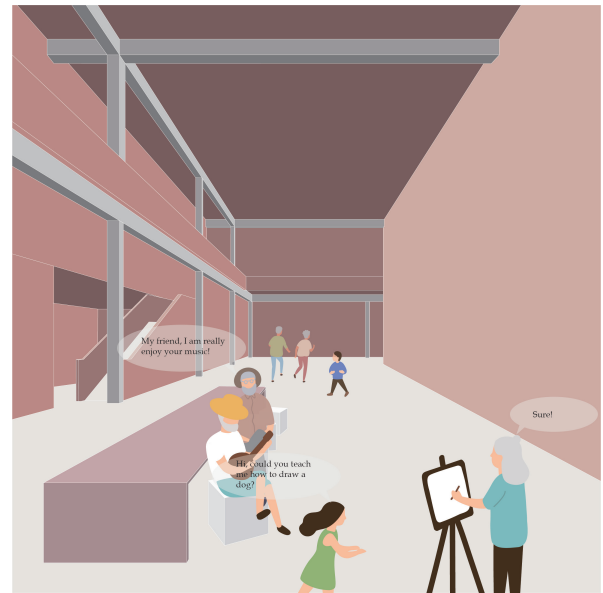


Figure 2: Vision of Neo-Collectivism

Within our lifetime, we will see an increase in the aging of the population in China, and the social isolation of the elderly is occurring every day. Simultaneously, more and more young people migrate to large cities, while older family members stay in their home towns to lease the younger generation's burden. The once collectivist family culture has been destroyed, and the daily life of the elderly without their relatives has become monotonous and lonely. Moreover, with the advancement of technology, the younger generation is increasingly dependent on smartphones for social interaction and life, which increases the possibility of the elderly being isolated from daily life.

Nevertheless, when designing a nursing home or retirement community, one usually imagines a building or a community that is full of the elderly. Apart from the occasional visit to their families, the community is closed to everyone, and it is difficult for them to get out. This kind of traditional architectural design for the elderly currently lacks interactions and supports between different generations, which are making the social isolation situation of the elderly get worse.

This thesis supports the exploration of reshaping meaningful public space, which could attract both the elderly and younger generations (especially children) to interact with each other through different life scenarios of different generations of people. This project is located in Wuwei, a small city in Gansu, China. This thesis aims to analyze and classify the typology of activity space for people of different generations and determine programs according to the needs of people of different ages. Primary research will be rooted in the design of a day's activities for people across generations.

The study first established a time-line of the day's activities for people across generations. Through this study, I learned about the living needs and space needs of different people and studied the overlap and combination of activities and space of people of different generations. Therefore, a series of prototypes of different spaces are classified and summarized, and user experience analysis is carried out. The next step is to combine the space according to people's needs and test the design's feasibility in the actual location.

In this way, Neo-Collectivism, a new and different form of family Collectivism, is established among strangers, thus alleviating the problem of social isolation of the elderly.

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01 INTRODUCTION

1.1 Collectivism

“家庭之上，形成宗族；宗族之上，形成家族；家族之上，形成社会。中国古代的集体主义由此得以产生。在中国古代宗法社会中，一个家庭是一个集体，一个家族是一个集体，一个社会也是一个集体。我们将这种古代集体主义称之为宗法**集体主义**。”

——陈桐生，《中国集体主义的历史与现状》

*“Above the family, the clan is formed; Above the clan, the family is formed; Above the family, society is formed. Thus, it came into being the collectivism of ancient China. In China's ancient patriarchal society, a family is a collective, a clan is a collective, and society is also a collective. We call this ancient collectivism patriarchal **collectivism**.”*

——Chen Tongsheng, The History and Present Situation of Chinese Collectivism¹



Figure 3: Concept of Collectivism

Chinese Sociocultural Values: Collectivism

The core of Chinese culture is collectivism. For the Chinese, each family could be a collective. Thus, people emphasize the close relationship with their families, which deepens the influence of collective culture on individuals in this atmosphere. Chinese prefer to live together for multiple generations, and this pattern of a big family is the most critical part of collectivism.²

However, modern life destroyed traditional collectivism. The younger generation starts to migrate to big cities, for which they do not live with their older families anymore. The relationships between people have become more distant, and smartphones have become communication barriers between the elderly and the younger generation. When I was young, I lived in a courtyard house with my grandparents before moving into high buildings in a big city, Wuhan. Thus, I understand the significance of collectivism and face-to-face social life for the elderly. My grandmother cannot use a smartphone because it is too sophisticated for an illiterate elder. She feels lonely, but she does not want to live in a nursing home or move to Wuhan to live with my parents and me. She wants to take control of her life by herself. Many Chinese aging people face the same problem because collectivism in China has been destroyed.

Thus, as an architect, I care about if there will be a new type of collectivism community that consists of different generations. It will be neo collectivism, which could form a new big family. It could cure the aging population's loneliness, offer an excellent opportunity to get their social life back. It could also be a chance for them to realize their self-worth; they can support the younger generations. I wonder if architecture could offer some public space for an intergenerational community for the aging people who are isolated and the youngsters who need support.

1.2 Background

1.2.1 Situation

Population Aging

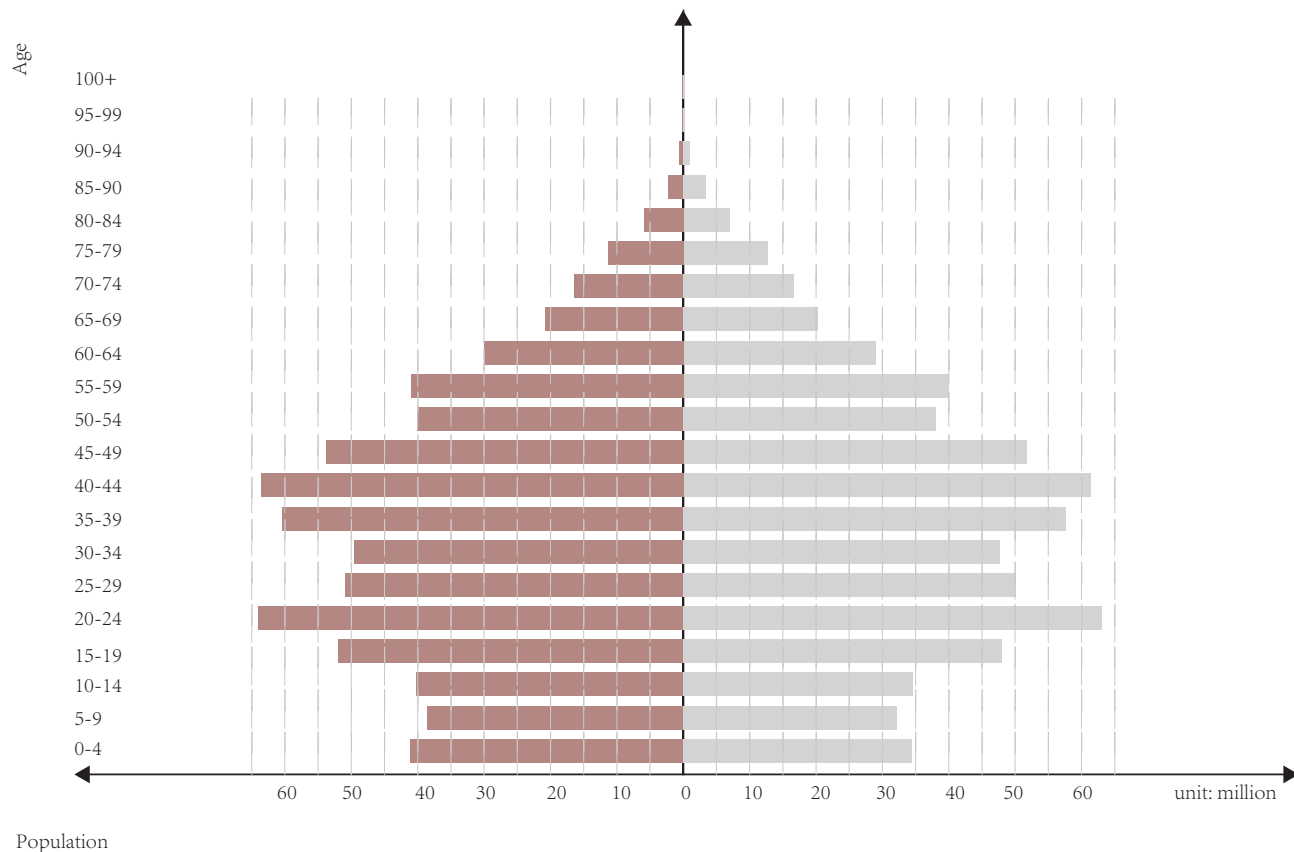
Migration of Young Generation

Social Isolation of Aging People

Lack of Parental Companionship for children...

The Situation of the Elderly

Population Aging



Population

Figure 4: Proportion analysis chart of age population

Data Source: National Bureau of Statistics

<http://www.hqrw.com.cn/2020/1027/98994.shtml>

“The proximate determinants of population aging in China are fundamentally the same as those in any other country. It is an inevitable consequence of the process known as the “demographic transition” in which declining fertility together with a rise in life expectancy leads to a shift towards an older age structure of the population. Yet, the story of population aging in China is unmistakably unique, shaped by its distinct historical, cultural, economic and political contexts.”

--Chen, Feinian, and Guangya Liu. “Population Aging in China.”⁴

Nowadays, the situation in China is that we have many social problems. The Population aging problem is the main problem of Chinese society. According to the Chinese government's sixth population census, more than 190 million people were over sixty years old, and 210 million people were over fifty years old. China has the largest aging population in the world.³ However, many of the aging population lack family and intergenerational supports.

The Situation of the Elderly Migration of Young Generation



Figure 5: Young generation's migration

“During the past 30 years of breakneck economic growth, China has seen its population urbanize rapidly. Between 1990 and the end of 2015 the proportion of China’s population living in urban areas jumped from 26 percent to 56 percent, and there are currently estimated to be more than 200 million rural migrants working in China’s biggest cities.”

--Diplomat, Peter Farrar for The. “China's New Generation of Urban Migrants.”⁶

The younger generations in China tend to migrate to big cities. They believe that they can get wealth and happiness if they move to big cities from villages or suburban areas. According to New York Times, China has long had some of the world's smallest towns and some of its most crowded and polluted cities. The government's modernization program's ultimate goal is to fully integrate 70 percent of the country's population, or about 900 million people, into urban life by 2025.⁵ However, the people who migrate to big cities are facing difficulties in feeding their families. Thus, instead of moving to live with their younger families, most aging generations choose to stay in their smaller hometowns, which are smaller cities or villages. As a result, the old collectivism in Chinese families was broken down.

The Situation of the Elderly

Social Isolation of Aging People

Technology isolation

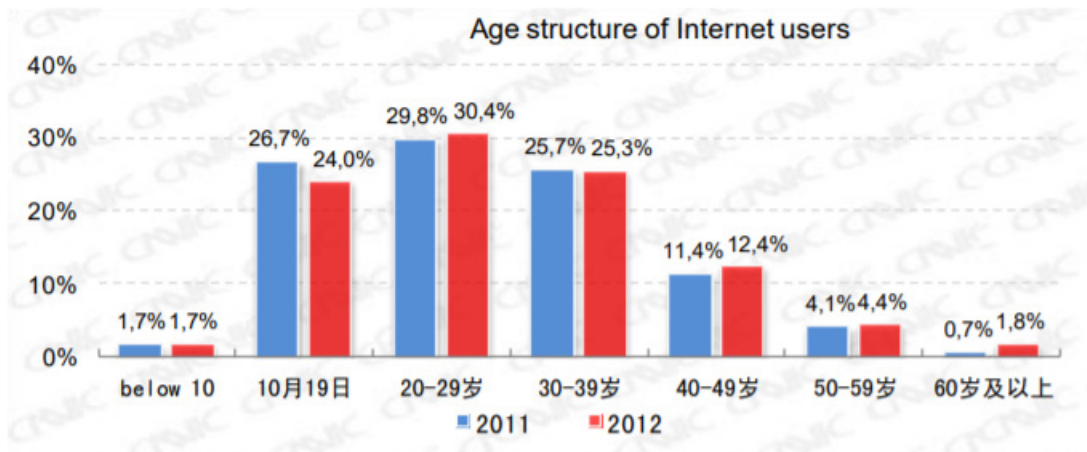


Figure 6: Age structure of Internet users in China

Source: CNNIC Statistical Survey on Internet Development in China

“In 2012, the Internet penetration rate reached 42.1% in China, rising 3.8% over the previous year. The growth extent further contracted compared with the last year. Mobile phone Internet users hit 420 million, growing at the annual rate of 18.1%. Of all Internet users, the proportion of those using mobile phone to access the Internet kept rising, further strengthening its position as the top Internet access terminal.”

--Statistical Report on Internet Development in China⁷

With the development of technology, Chinese society has become a society based on the Internet and smartphones. In China, people use mobile phones to communicate, read the news, buy things, take taxis, and even pay fees. Especially during the Covid-19, the government uses QR codes in smartphones to track possible contractors with patients. Nevertheless, there are many illiterate aging people in smaller cities in China. According to the research, most of the aging population has the limitation of using the Internet. For older people, the sense of isolation from other age groups is growing.

The Situation of the Elderly

Social Isolation of Aging People

Living environment isolation

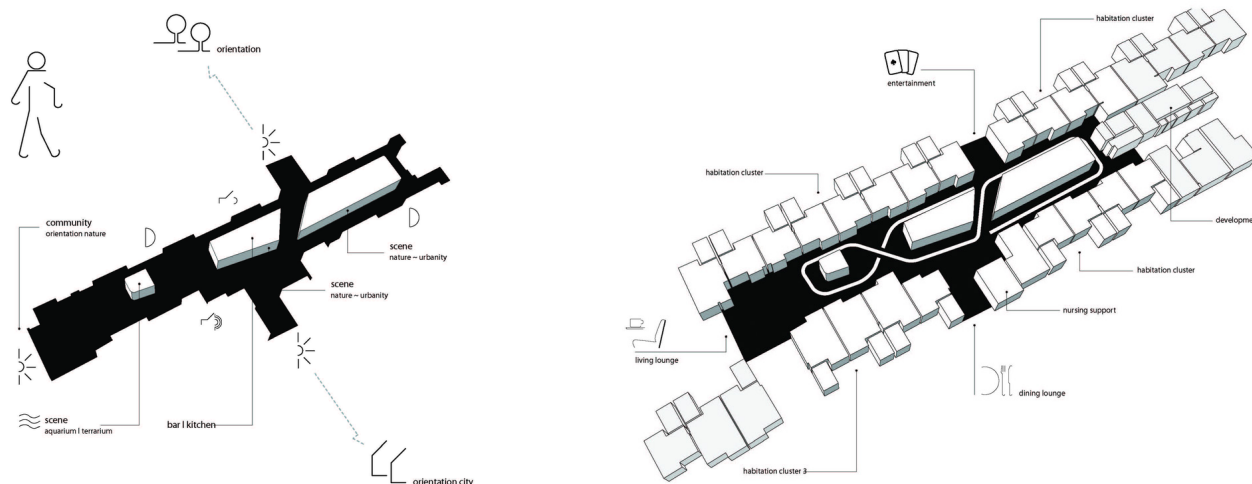


Figure 7: Traditional nursing home analysis-Residential and Nursing Home Simmering / Josef Weichenbrger Architects + GZS

“Most participants viewed relocation as a way of minimizing the burden of their care from family members, but desired to keep a close connection with family and friends. Participants recounted experiences of psychological resistance while making the decision to relocate. Fear of losing autonomy and the ability to perform self-care was a major reason for resistance to adapt.”

--Chia-Shan Wu & Jiin-Ru Rong⁹

Like the nursing home designed by Josef Weichenbrger in the case⁸, essential services in a traditional nursing home include personal care, primary medical care, room cleaning, meals, and laundry. However, standard-setting, evaluation, rehabilitation treatment, equipment, and monitoring of volunteer services are insufficient in China. Besides, few nursing homes pay attention to the mental health of the elderly, with most caregivers having little or no training in caring for the elderly. Living in a nursing home means the elderly will be locked into a building, waiting for others' help. Under such circumstances, many aging people refuse to go to nursing homes since they do not want to lose the ability to perform self-care.

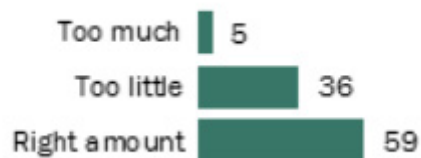
The Situation of the Children

Lack of Parental Companionship

Many parents say they spend too little time with kids, partners, friends

% saying ...

Time with kids?



Time with spouse/partner?



Time for friends, hobbies



Note: Only parents who are married or living with a partner were asked about the amount of time they spend with their spouse/partner. "Not enough" includes 2% of parents who volunteered that they have "no time" for friends, hobbies. "Don't know/Refused" responses not shown.

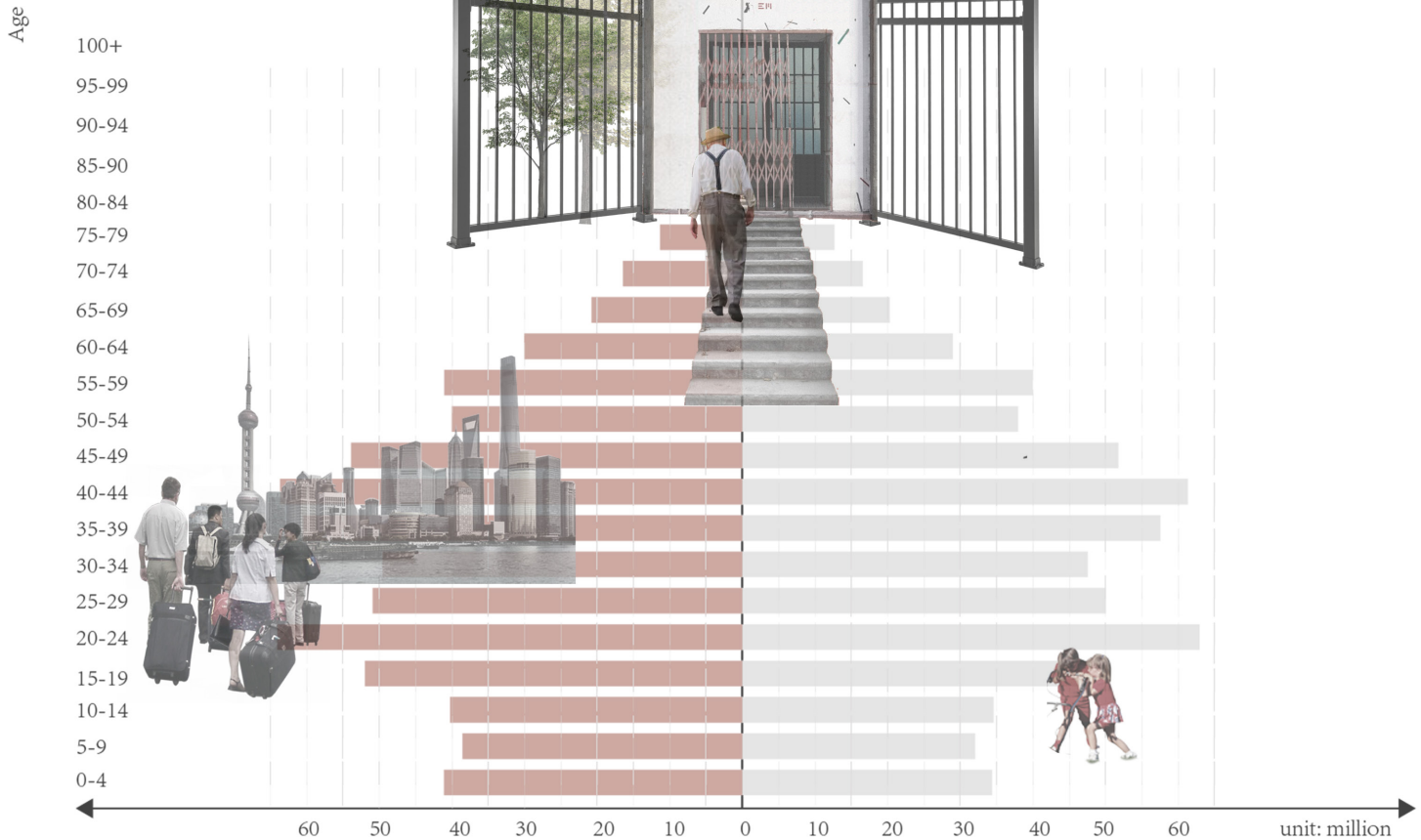
Source: Pew Research Center survey of parents with children under 18, Sept. 15-Oct. 13, 2015

"The young professional was expected to stick to a grueling work schedule that has become so pervasive in Chinese companies that it's now commonly referred to as 996: working from nine in the morning to nine in the evening, six days a week."

--Denise Hruby, BBC¹⁰

The migration of young people to big cities leads to the isolation of the elderly and affects the lives of children to some extent because of the Chinese Hukou policy. Children cannot take entrance exams to high schools or universities if they migrate to big cities with their parents without having Hukou in that city. Thus, many of them live in their hometown without their parents. However, even their parents stay in small towns, they still cannot get enough accompany. According to the Pew Research Center survey, many parents feel rushed in their daily lives, and about a third (36 percent) say they spend too little time with their children. When parents are working, it is difficult for children to get sufficient companionship. The current "996" (working from 9 am to 9 pm, six days a week) policy of Chinese companies has made the situation worse in China. The problem is even worse for children whose parents have moved to big cities to work. Because of hukou, many children are confined to schools in smaller towns, separated from their parents.

Figure 8: Analysis of the time spent by parents with their children



Data Source: National Bureau of Statistics
Figure 9: Analysis of the time spent by parents with their children

As the elderly and children who need social support, they all face some problems. The younger generation of Migration to Big Cities is dismantling Chinese family collectivism. The aging people have lost the everyday family life of three generations. They have been trapped by technology and the living environment of nursing homes, and it is hard for them to communicate or interact with other generations. Also, for the children, they cannot get enough attention and cares from their parents. Both of the two generations are facing social isolation problems.

1.2.2 Audience



The elderly	
Age: 60-90	Living situation: Living alone
Education: Not very well educated Uneducated Have a good education (few)	
Health: Self-helping Aged People Device-helping Aged People Under Nursing Aged People (few)	
Social: Face-to-face socializing Online socializing (few)	
Roles in the community: Residents Staff	

Middle-aged(staff)	
Age: 30-40	Living situation: Living with children
Education: Not very well educated Uneducated Have a good education (few)	
Health: Healthy and able to take care of others	
Social: Face-to-face socializing Online socializing	
Roles in the community: Residents Staff	

Children	
Age: 6-12	Living situation: Living with parents Collective living
Education: Primary school students	
Health: Healthy Disabled	
Social: Face-to-face socializing Online socializing	
Roles in the community: Residents Volunteers	

The intergenerational public space design will focus on different generations who live in small towns, especially for the elderly who are 60 years old to 90 years old, and they are self-helping or device-helping. Moreover, children between the age of 6 to 12 have some self-care ability and social abilities are also the targets. Also, some middle-aged generations might participate as the staff of the intergenerational community. Unlike traditional nursing homes, even though most residents in the community are elderly, there are still people of other ages living in the community with them.

This thesis explores prototypes of public Spaces designed by users of different generations, and it has specific applicability for the elderly apartments designed by any architect.

02 KNOWLEDGE

2.1 Basic needs of different generations

Basic needs of the elderly to keep health

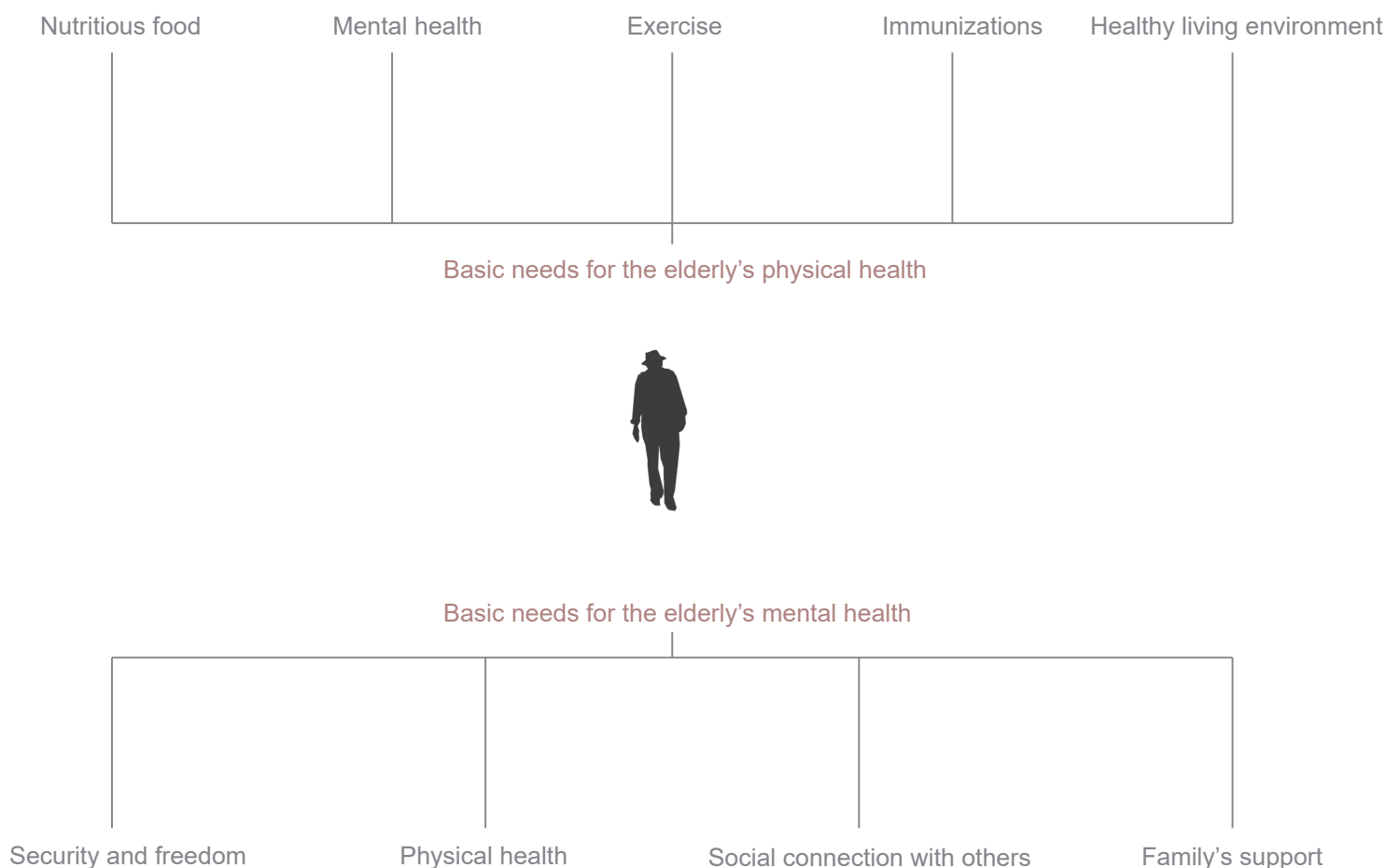


Figure 10: Basic needs for the elderly's health

According to WHO's report¹¹ in December, 2017, the elderly's mental health and physical health are affecting each other. The elderly with psychological problems usually aggravate physical diseases, and the occurrence of physical diseases will also cause psychological stress to the elderly, adversely affecting their mental health. Therefore, it's important for the society to pay attention to the elderly's mental health and physical health. For elderly who are retired or unemployed, they have a lot of free time. How to make this free time meaningful or improve the satisfaction of older people with the activities in their free time is crucial. Many elderly Chinese are willing to take care of their children to pass the time. For them, child-rearing is a way to relieve loneliness and break down generational isolation. Some of the elderly are keen on socializing. Sports such as square dancing and Taijiquan are prevalent among the elderly in China. As a new industry, college for the elderly also allows the elderly to improve themselves and break the social isolation.

Thus, an older person's perfect day might include socializing with people of the same age, socializing with people of different ages (mainly children), exercising, studying, and some outdoor activities.

Basic needs for children to keep health

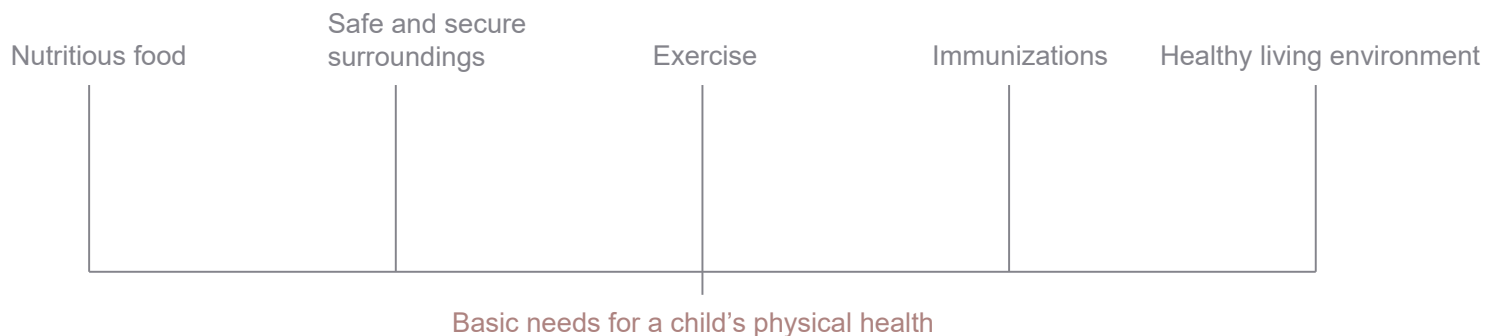


Figure 11: Basic needs for children's health

According to America Academy of Child and Adolescent Psychiatry,¹² to keep children's physical and mental health, they need to play or do exercise. Also, they need the guidance from other elder generations. As the elderly, children also need other's support and careness. Social activities are very important.

2.2 Precedents

Precedents

Co-living space for the elderly-Ginkisa

"This is not a one sided nursing/nursing relationship, but rather... Residents and employees will work together to create a life in a house called Ginkisa."



Ginkisa designed by Manyuko Sakai

<https://soar-world.com/2018/06/13/ginmokusei/>

Figure 12: Analysis of the co-living space of the elderly

<https://soar-world.com/2018/06/13/ginmokusei/>

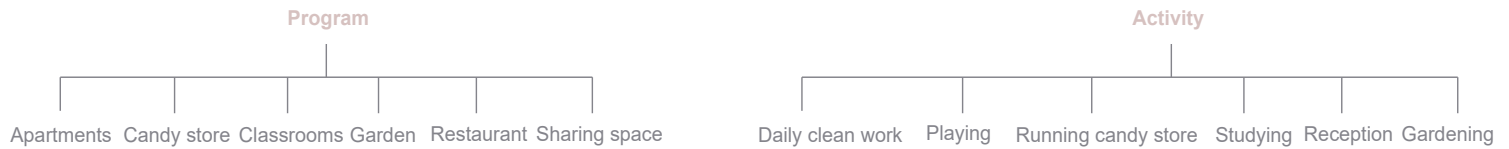
"This stance of doing your own thing eventually became ourselves and fostered a sense of companionship, and now we can see many residents supporting each other."

"Its 'high degree of freedom' is the best among long-term care facilities. It is no different from a general rental housing, except that the long-term care service is provided by the home-visit nursing care facility. So to speak, it is an image close to the 'elderly version of the share house.'"

--" 認知症になっても、自分らしい「生活」を。入居率ほぼ 100%の高齢者住宅「銀木犀」の魅力。"¹³

Ginkisa is an exceptional co-living apartment for the elderly. As is mentioned in the quotes, many of the elderly who live here have some degree of mental or physical problems, but they insist on doing what they can and have a lot of communication and interaction with kids. They play together and study together, as a result, the health of the older adults living here has improved.

Program and Activity



Timeline of the elderly



Adaptive analysis



Figure 13: Analysis of the co-living space of the elderly

Older adults need not only physical activities but also spiritual companionship. In Ginkisa's case, a community appropriate for older people does not provide them with exquisite care but provides them with companionship and vitality. The arrival of children has a positive impact on the mental health of older adults, which in turn affects their physical health. Therefore, it is essential to create a shared public space for the elderly and children.

Precedents

Welfare home for children

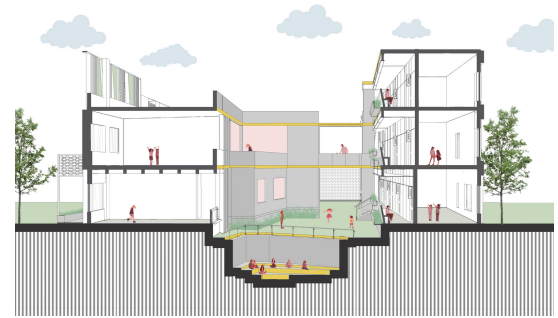
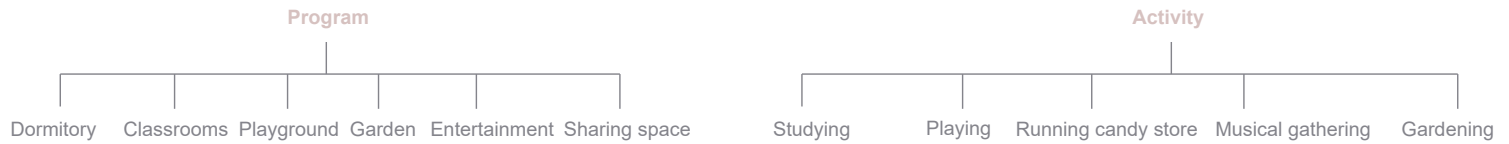


Figure 14: The Mann School – White Flower Hall / Envisage

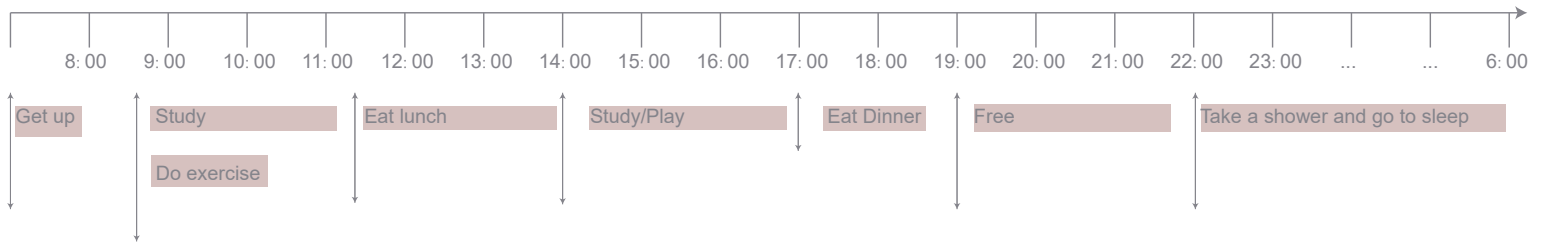
https://www.archdaily.com/958480/the-mann-school-nil-white-flower-hall-envisage?ad_source=search&ad_medium=search_result_all

Today, educational institutions have evolved from being bland and boring boxes to innovative and practical buildings that intend to help kids to learn in a welcoming environment for kids.
¹⁴The vision for the design for The Mann School centres on the importance of providing facilities to promote learning and all-round development which are good for children's mental and physical health.

Program and Activity



Timeline of a child



Adaptive analysis



Figure 15: Analysis of the welfare home for children

The Mann School is an excellent example of how important play is to children. Play is not only for entertainment but also provides benefits for children, such as strengthening their physical health and promoting their learning. Therefore, the design of public space related to play may be suitable for both the elderly and children.

03 OBJECTIVES and RESEARCH QUESTIONS

3.1 Questions

How can we redefine a space which could offer a Neo Collectivism for the aging people and children? The Neo Collectivism can offer wellness for the two different generations. Thus, the built environment must be re-evaluated to make new design criteria for Neo Collectivism.

1. What is the physical needs of the elderly and children? How can the physical and mental health needs of elderly and children be understood spatially and temporally?
2. How can the needs and activities of elderly and children be aligned to enable positive interactions and create the Neo Collectivism?
3. How can spaces of circulation, play, and learning be combined to promote intergenerational social engagement and growth?
4. What new architectural and social opportunities are afforded through this design framework, and how might this work inform future designs of spaces for intergenerational cohabitation?

My thesis's most critical question is how to redesign some space for the elderly and children and rebuild the Neo Collectivism through other age groups' participation. Can the elderly and children receive sufficient attention and care as the main body of the Neo Collectivism?

3.2 Objectives

The basic principle of the project is to promote the underlying relationship between the building's residents, encouraging meeting and cohesion between generations. The project provides various indoor and outdoor atmospheres and a gradual transition between communal areas (such as communal entertainment areas, gardens, small squares, and other happy Spaces) and everyday family areas. This thesis aims at offering the neighbourhood some dynamic meeting points for people of all ages, especially the elderly and children, taking part in a wide range of activities.

The thesis offers the possibility of a new typology, developed out of the response to a brief that asked only for a community that would bring people in different generations together and improve their quality of life. Health, play, leisure and education are combined together to create a spectacular architectural experience and scenario.

NEO COLLECTIVISM

NEO COLLECTIVISM



Figure 16: comics of the vision of the public space of the intergeneration community

05 METHODS

This thesis aims to analyze and classify the typology of activity space for people of different generations and determine programs according to the needs of people of different ages. Primary research will be rooted in the design of a day's activities for people across generations.

After the site analysis, the study first established a time-line of the day's activities for people across generations. Through this study, I learned about the living needs and space needs of different people and studied the overlap and combination of activities and space of people of different generations. Therefore, a series of prototypes of different spaces are classified and summarized, and user experience analysis is carried out. The next step is to combine the space according to people's needs and test the design's feasibility in the actual location.

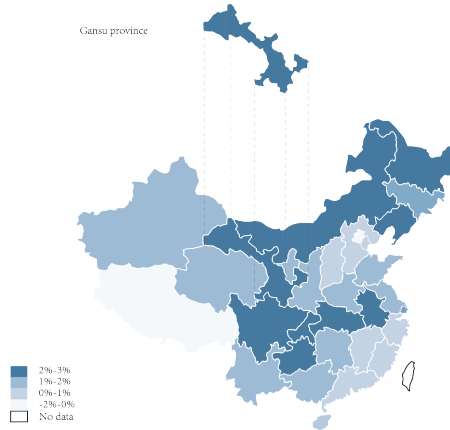
5.1 Site Analysis

Site Analysis

Context analysis

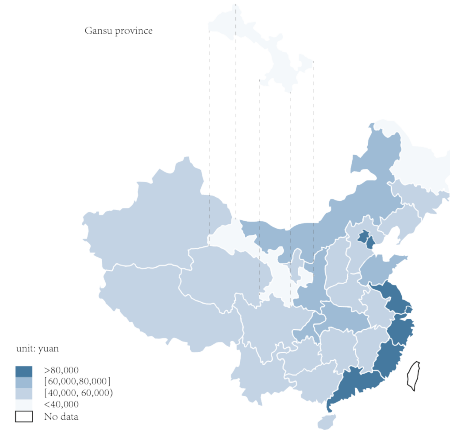
Site: Wuwei, Gansu Province, China

Populatio Aging



Changes in the proportion of the elderly population (65 years and above) in all provinces, 2000-2010
Source: China Statistical Yearbook

Economic Situation



Per capita GDP data of 31 provinces and its ranking in 2019
Data Source: National Bureau of Statistics

Site: Wuwei, Gansu Province, China

The proportion of the population in the distribution of literacy level



Data source: China Statistical Year Book

Figure 17: Context analysis of Wuwei, Gansu

I choose Wuwei City of Gansu Province as the site of my project. The rate of elderly has been rising as young people migrate to the big cities, and the fact that it is a poorer place means that elderly people, orphans, disabled children are less likely to get good care. Also, there is a lot of illiteracy, older people face more serious technological problems and feel more isolated from society.

Site Analysis

Urban analysis

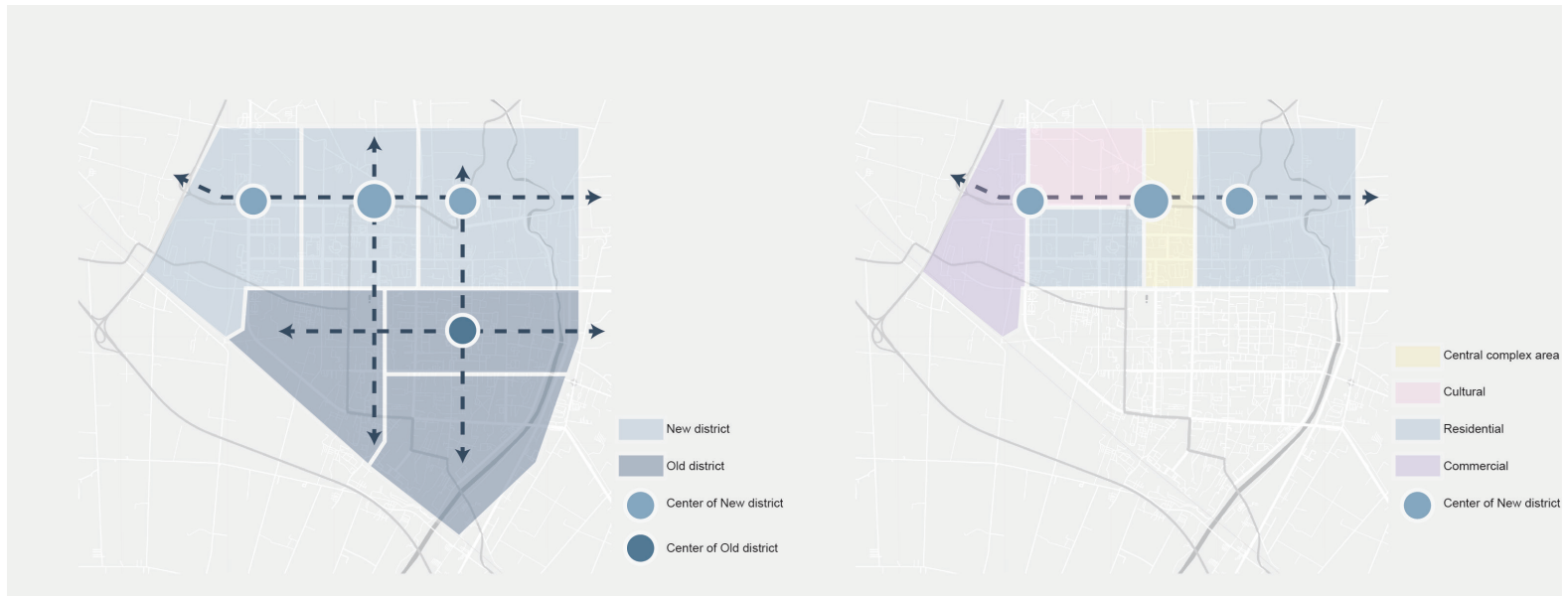


Figure 18: Urban analysis of Wuwei, Gansu

As for Wuwei City, new urban areas are currently under construction. The new urban area means dynamism, and I think it's a good opportunity to put this intergenerational community into the new urban area.

Also, the government of Wuwei city has some request: the land adjustment does not violate the mandatory content of the general regulations, and the structure of the dry road network, the layout of municipal infrastructure and public service facilities remain unchanged.

The ground can be equipped with municipal public facilities, old-age service facilities, convenient shops.



Figure 19: Urban analysis of Wuwei, Gansu

The red dot is my site. It is located at the junction of the cultural area and residential area, close to the main road for easy travel. Besides, there are green parks, a primary school and a kindergarten, as well as shopping spots near this site, which is a very cheap place for the elderly and children to live in.

Site Analysis

Urban analysis

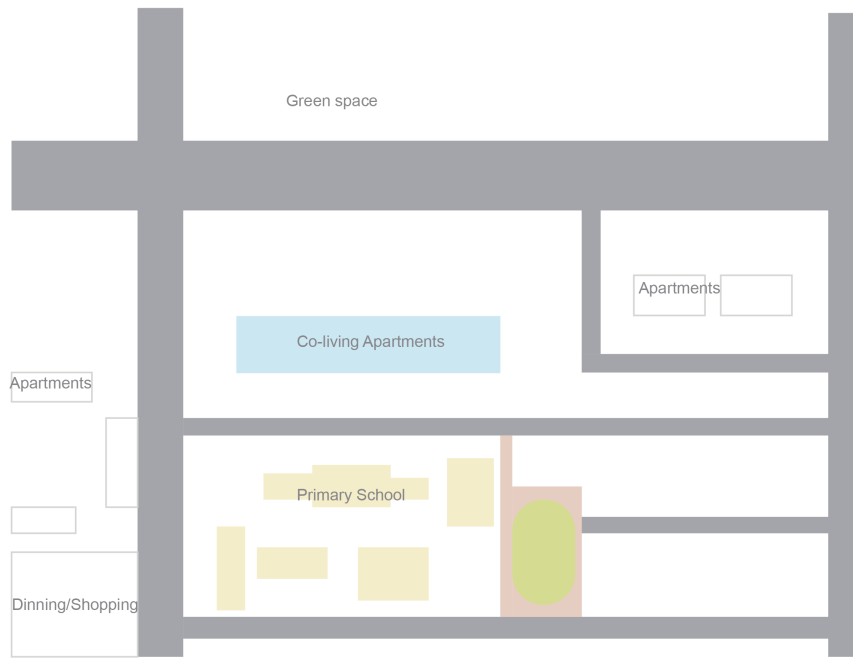


Figure 20: The original map of the site

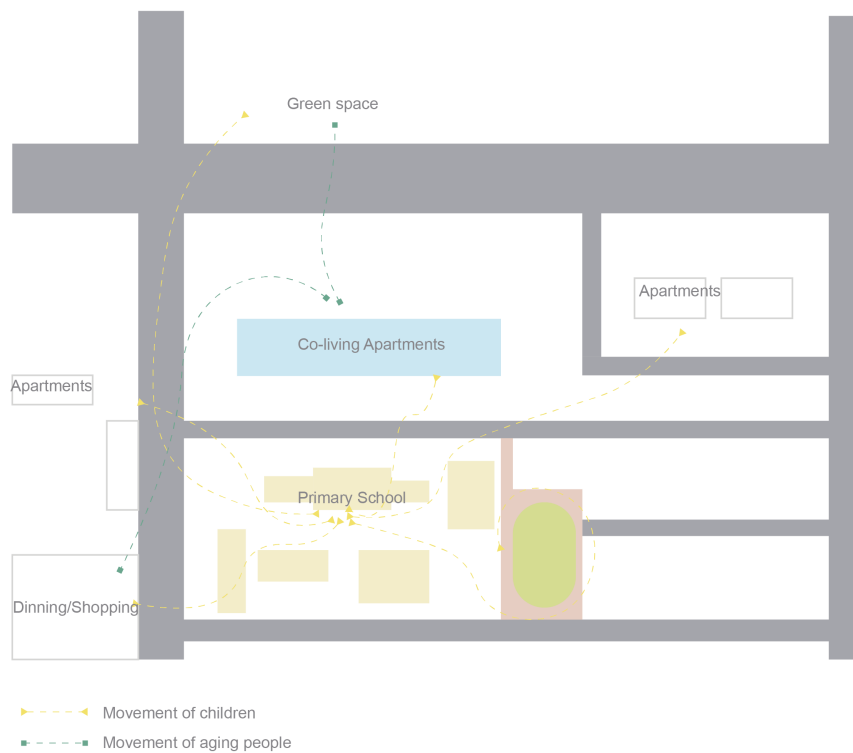


Figure 21: The movement of children and the elderly before the public space is designed

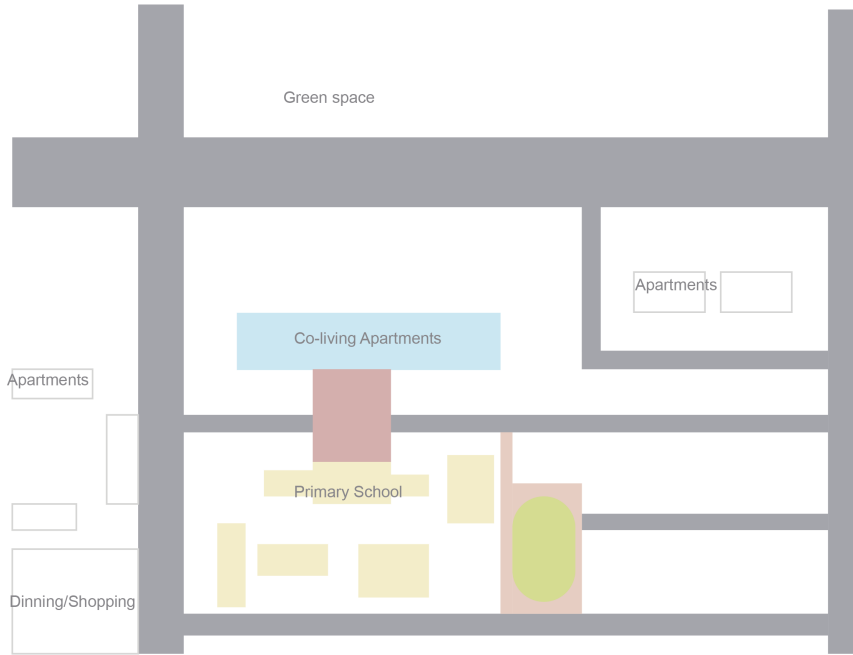


Figure 22: The location of the public space

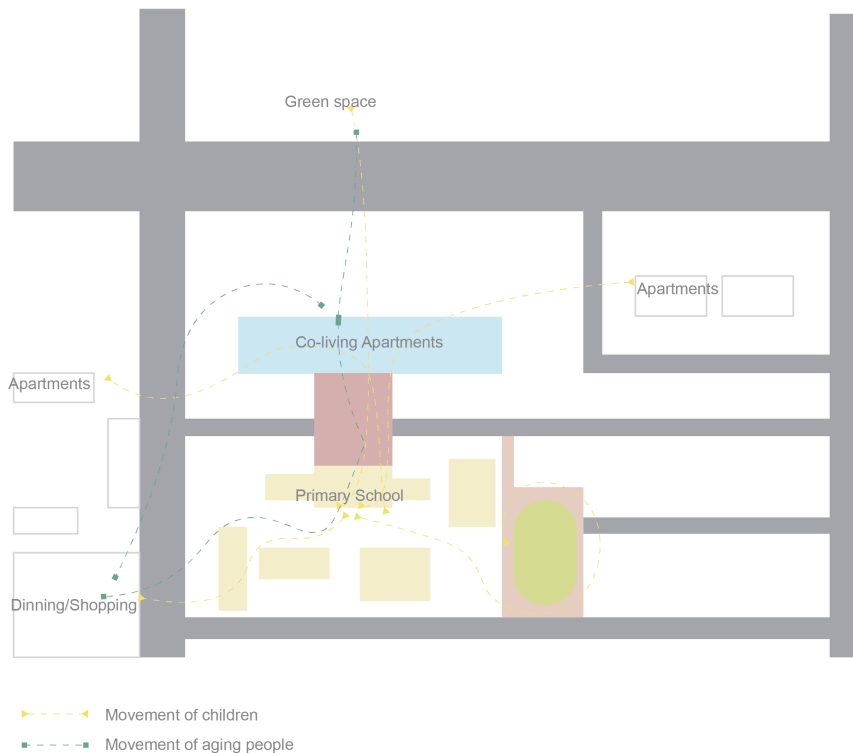


Figure 23: The movement of children and the elderly after the public space is designed

Site Analysis

Urban analysis

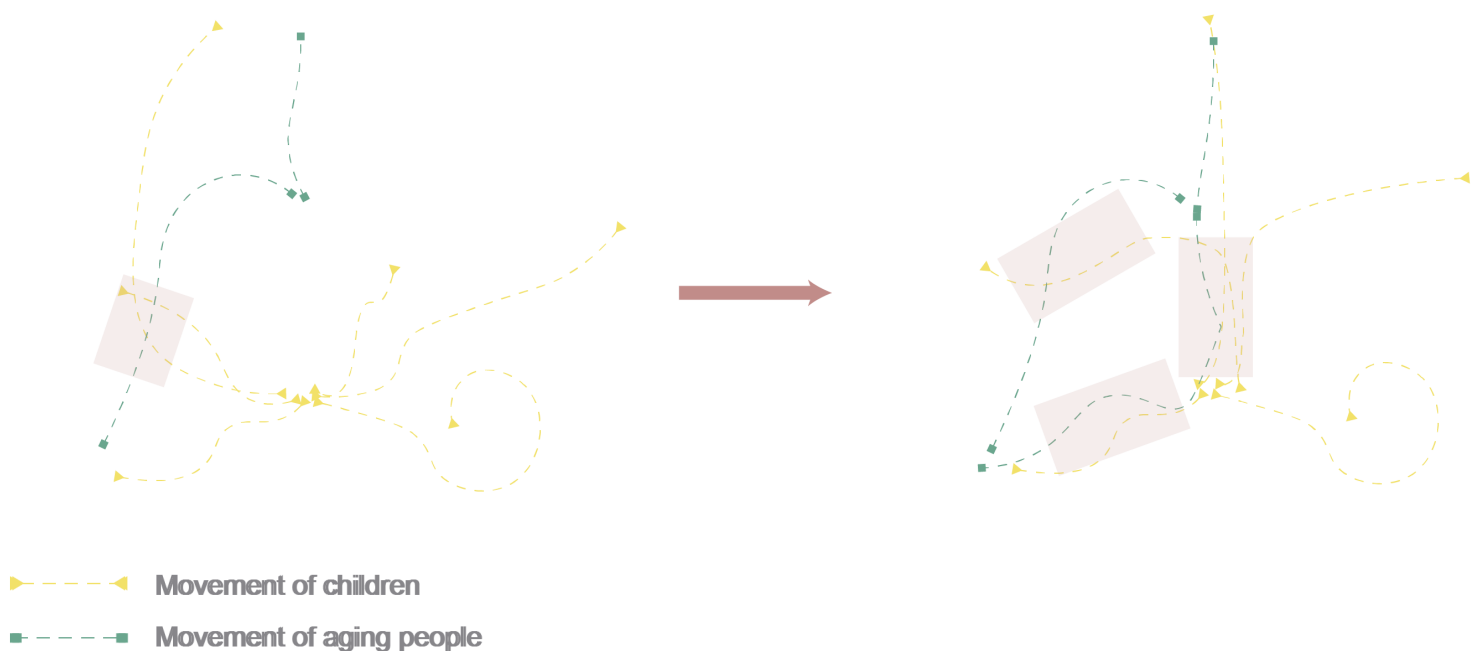


Figure 24: Comparison of the overlap of movement tracks between the elderly and children before and after the establishment of public space

There is a primary school across the street from the site. If a traditional nursing home is simply set up, the interaction between the elderly and children will not be strengthened. But if a public space is created between the elderly apartment and the primary school that attracts them, the intergenerational relationship between them can be improved.

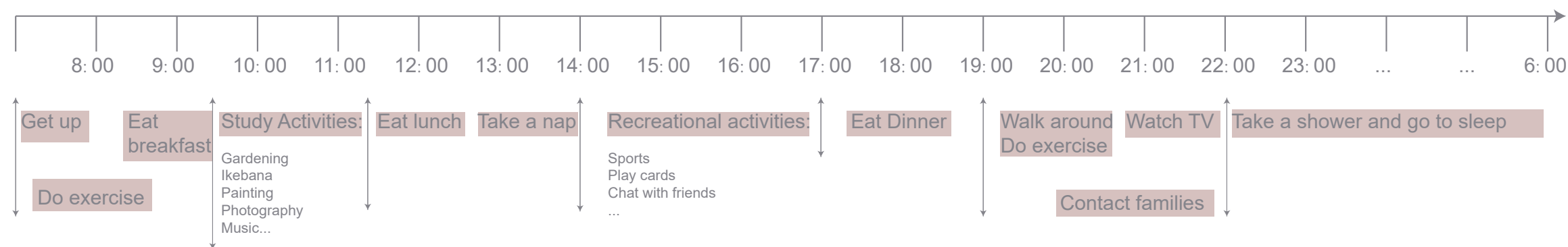
This thesis offers the possibility of a new typology for a community that would bring people in different generations together and improve their quality of life. Play, leisure and education, which aspects are important for the elderly and children's mental and physical health, are combined together to create an architectural experience and scenario.

5.2 Scenario Research

Scenario Research

Timeline of the elderly

Self-helping Aged People



Device-helping Aged People

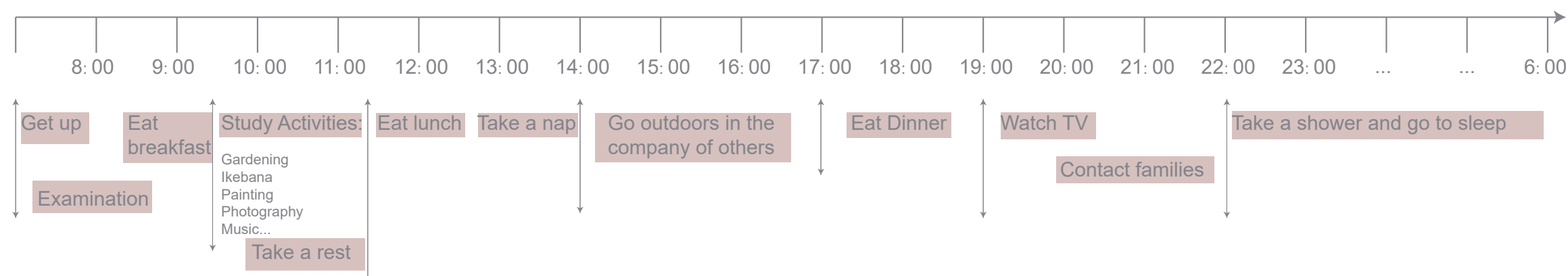


Figure 25: Timeline of the elderly's activities during the day

The elderly, especially those who are retired or unemployed, have a lot of leisure time every day. During this time, they can play, do sports and also study. These events are great networking opportunities and provide a platform to address their social isolation issues.

Scenario Research

Timeline of a child

Children (6-12)

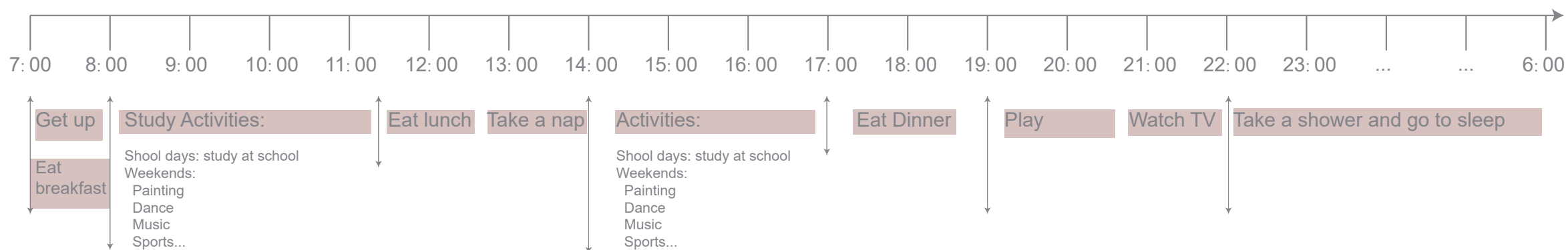


Figure 26: Timeline of a child's activities during the day

Scenario Research

Timeline of a staff

Staff

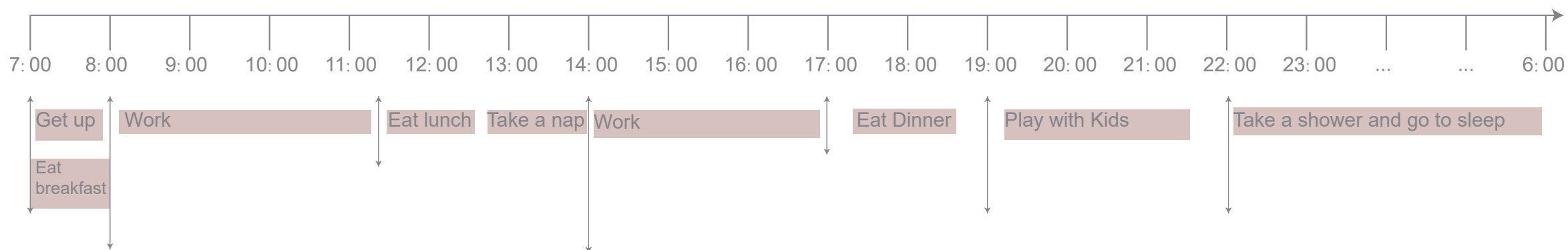


Figure 27: Timeline of a staff's activities during the day

For children, the main task of every day is to study. However, at the same time, play can also be a part of learning, improving their physical health, or learning skills. For workers who spend most of their time at work, adding the element of play in Circulation may serve as an opportunity for the three to meet and promote communication and support among generations.

5.3 Narrative Design

Narrative Design

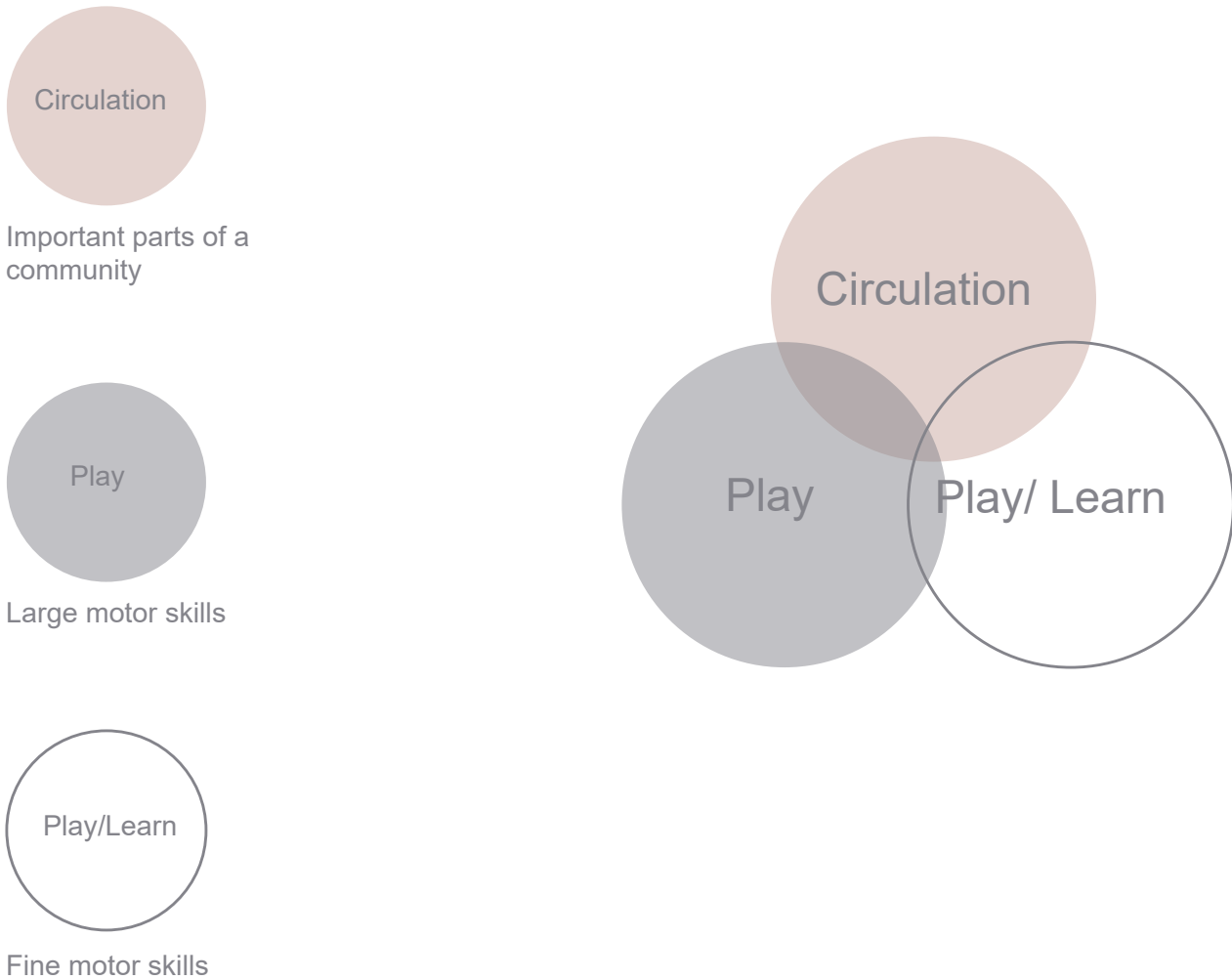
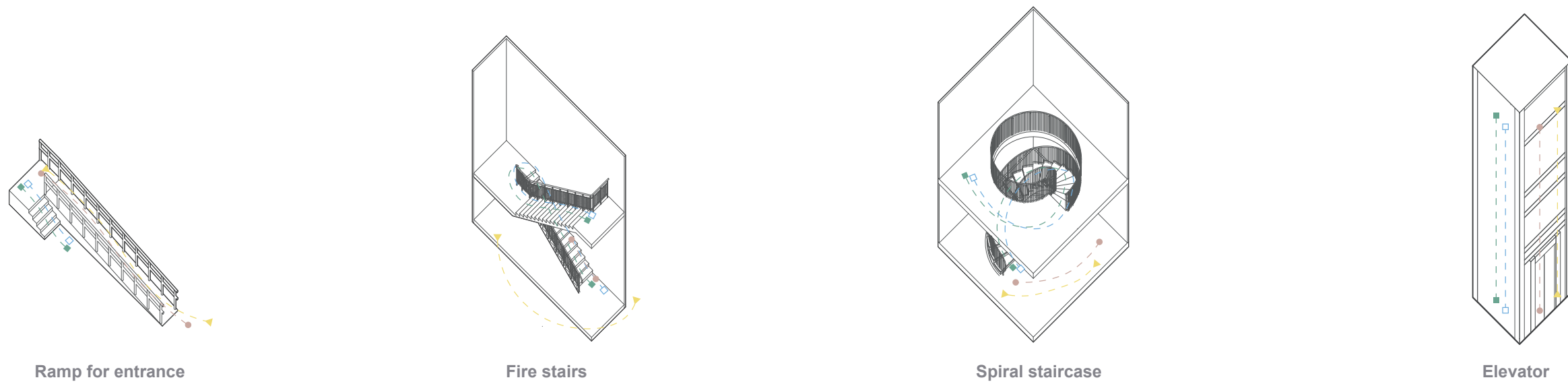


Figure 28: Three main activities for the elderly and children

According to the timelines of daily activities of different groups of people, both the elderly and children have a lot of leisure time to play. Circulation space is a space that older people, children, and staff all use most often. Therefore, play space and circulation space are the key points of this thesis design. In addition, play types can be large motor skills, which involve the development of big muscles, and fine motor skills, which involve the coordination between the child's small muscles and the learning experience. Thus, this paper will analyze the three kinds of space and combine innovation to create a public space that can attract different generations.

Narrative Design

TAXONOMY--CIRCULATION



	Ramp for entrance			Fire stairs			Spiral staircase			Elevator		
	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Vertical Mobility	●●●●●	●●●●●	●●●●●	●○○○○	●●●●●	●●●●●	●○○○○	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Safety	●●●●●	●●●●●	●●●●●	●●○○○	●●●●○	●●●●●	●●○○○	●●●○○	●●●●●	●●●●●	●●●●●	●●●●●
Seating	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●●●●●
Resting	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●●○○○	●●○○○	●●○○○
Sociability	●○○○○	●○○○○	●○○○○	●●○○○	●●○○○	●●○○○	●●○○○	●●○○○	●●○○○	●●○○○	●●○○○	●●○○○
Playing	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
Supervision	○	○		●	○		●	●		○	○	

- ▲— Movement of device-helped aging people or disabled children
- Movement of self-helping aging people
- Movement of Children
- Movement of Staff

Figure 29: Analysis of circulation

To develop the combination possibility of the different experiences and scenarios, the next step is to analyze different taxonomy of space of circulation and play through the same criteria to see if some combination will be the dynamic meeting points for people of all ages. So the horizontal and vertical accessibility, safety, sociability, play possibility, resting possibility, and supervision have been examined for this taxonomy.

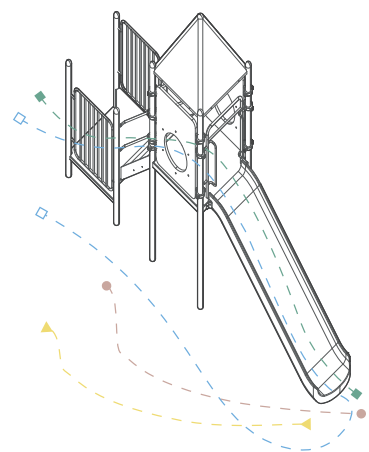
For traditional circulation, there is some space for older people to find it challenging to move vertically. Also, this part of the space is not an excellent place for social. People come and go in such a hurry that they cannot communicate much.

NEO COLLECTIVISM

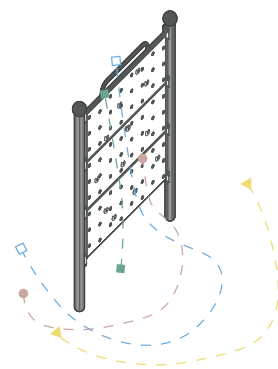
NEO COLLECTIVISM

Narrative Design TAXONOMY--PLAY

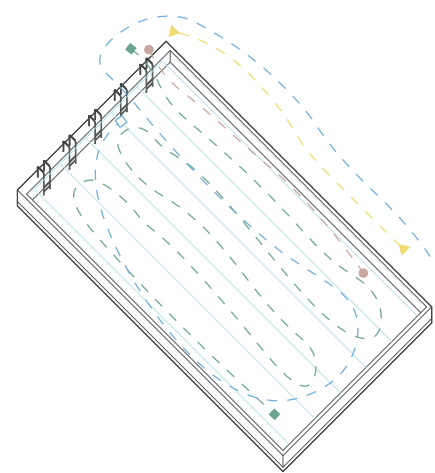
Large motor skills



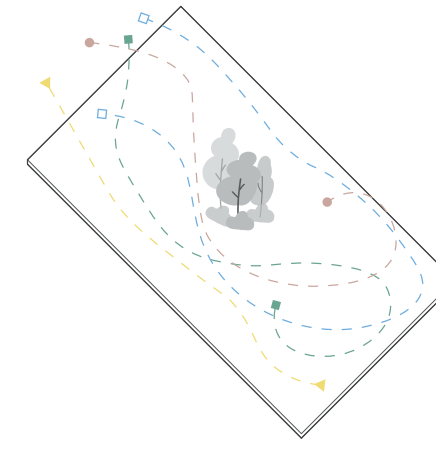
Children's slide



Climbing wall



Swimming pool



Open square

	Children's slide			Climbing wall			Swimming pool			Open square		
	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Vertical Mobility	○●●●○	●●●●●	●●●●●	●○●●○	●●●●●	●●●●●	●○●●○	●●●●●	●●●●●	○●●●○	○●●●○	●●●●●
Safety	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●
Seating	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	●○●●○	●○●●○	●○●●○	●○●●○	●○●●○	●●●●●
Resting	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	●○●●○	●○●●○	●○●●○	●○●●○	●○●●○	●●●●●
Sociability	●○●●○	●●●○●	●○●●○	●○●●○	●●●○●	●●●○●	●○●●○	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●
Playing	●○●●○	●●●●●	○●●●○	●○●●○	●●●●●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●	●●●○●
Supervision	○	●		●	●		●	●		○	○	

- ▶ Movement of device-helped aging people or disabled children
- Movement of self-helping aging people
- Movement of Children
- Movement of Staff

Figure 30: Analysis of play

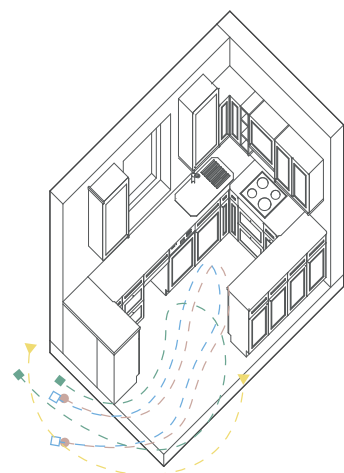
Most of the play Spaces and sports Spaces are designed for young people and children without adequate consideration for older people. Older adults often come to such venues as caretakers to prevent accidents to their grandchildren, and they do not participate in these activities.

NEO COLLECTIVISM

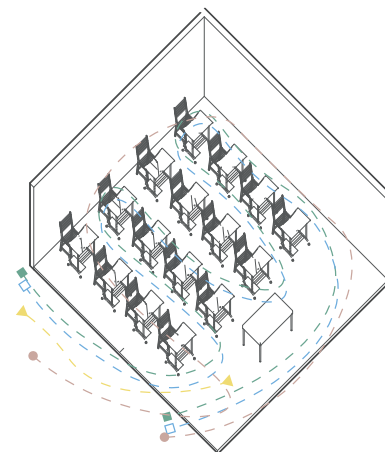
NEO COLLECTIVISM

Narrative Design TAXONOMY--PLAY

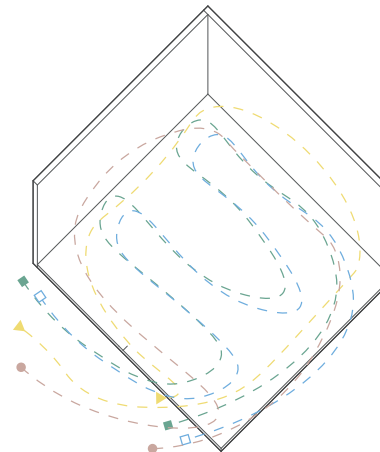
Fine motor skills



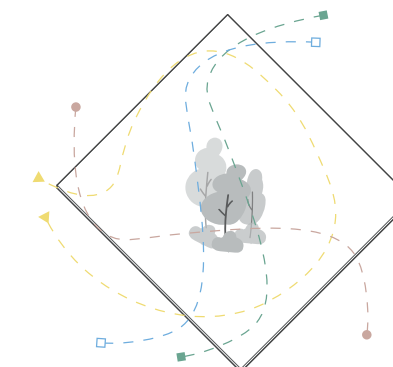
Kiten (tool using)



Crafts room (Using scissors, rulers)



Toy chamber



Gardening (tool using)

	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Vertical Mobility	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○
Safety	●●●●○	●●●○○	●●●●○	●●●●●	●●●●●	●●●●●	●●●●●	●●●●○	●●●●●	●●●●●	●●●●●	●●●●●
Seating	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	●●●●○	●●●●●	●●●●●	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○
Resting	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	●●●●○	●●●●○	●●●●●	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○
Sociability	●●○○○	●○○○○	●●●○○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○
Playing	●●○○○	●○○○○	●●●○○	●●●●●	●●●●●	●●●●●	●●●●○	●●●●●	●●●●●	●●●●○	●●●●○	●●●●○
Supervision	○	●	○	○	●	○	○	○	○	○	○	○

- ▶ Movement of device-helped aging people or disabled children
- Movement of self-helping aging people
- Movement of Children
- Movement of Staff

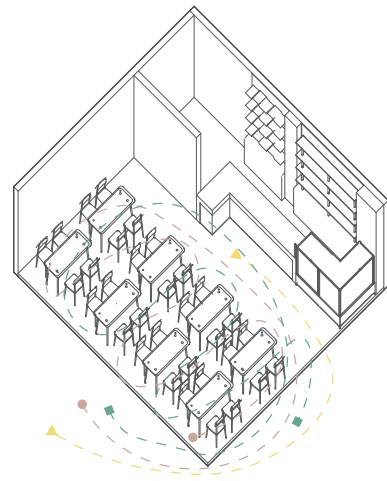
Figure 31: Analysis of play

For expanding the space of fine motor skills, the elderly and children still have different functional Spaces. Kitchens and gardens are more for older people, while playrooms and classrooms are more for children.

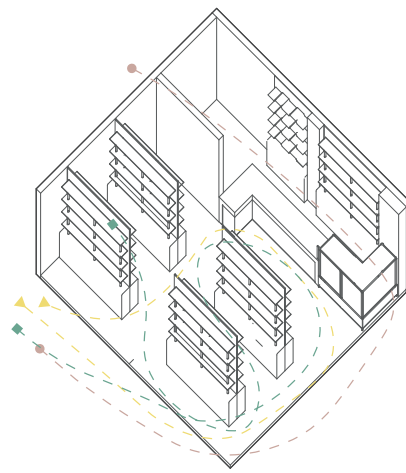
Narrative Design

TAXONOMY--PLAY

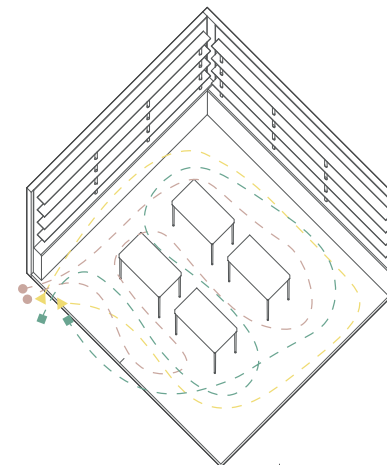
Fine motor skills



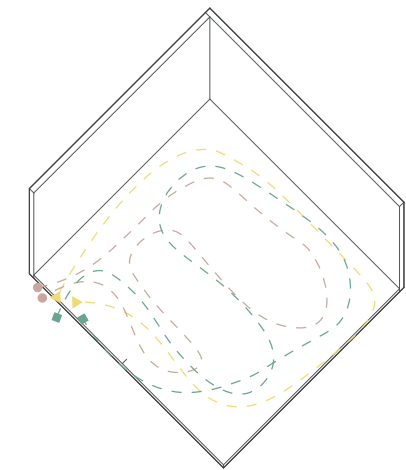
Dinning room



Candy shop



Reading room



Chatting room

	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Vertical Mobility	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○	○●●●○
Safety	●●●●●	●●●●●	●●●●○	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Seating	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○
Resting	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○
Sociability	●●●●●	●●●●●	●●●●●	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○	●●●●○
Playing	●○●●○	●○●●○	●○●●○	●●●○	●●●○	●●●○	●●●○	●●●○	●●●○	●●●○	●●●○	●●●○
Supervision	○	○		○	○		○	○		○	○	

- ▶ Movement of device-helped aging people or disabled children
- Movement of self-helping aging people
- Movement of Children
- Movement of Staff

Figure 32: Analysis of play

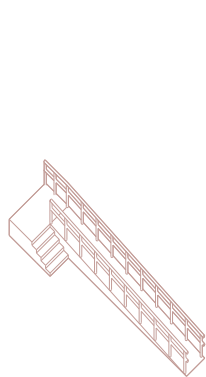
NEO COLLECTIVISM

NEO COLLECTIVISM

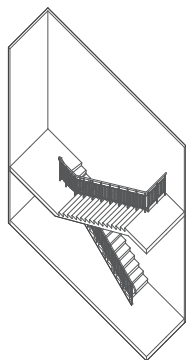
Narrative Design

TAXONOMY--COMBINATION

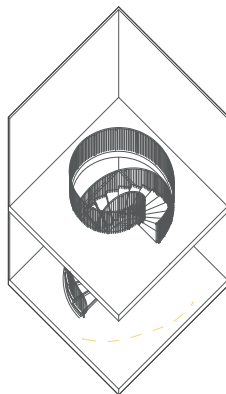
circulation + play



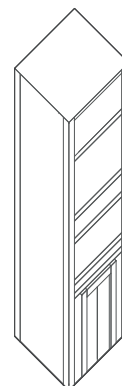
Ramp for entrance



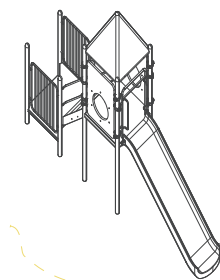
Fire stairs



Spiral staircase



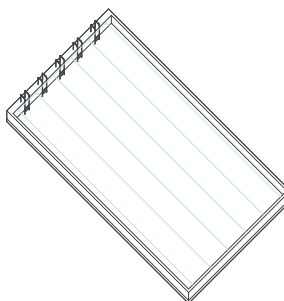
Elevator



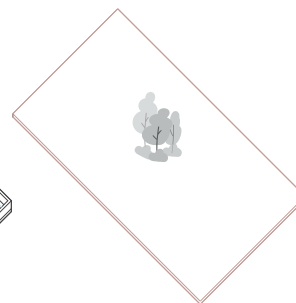
Children's slide



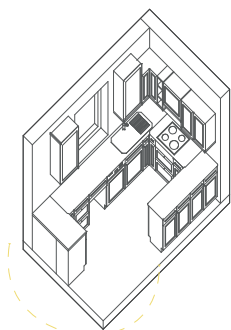
Climbing wall



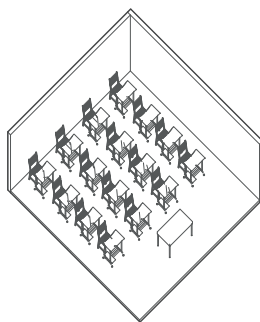
Swimming pool



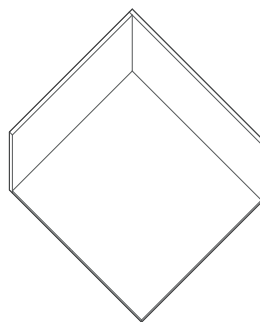
Open square



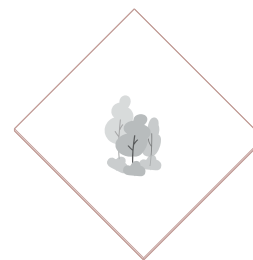
Kitchen (tool using)



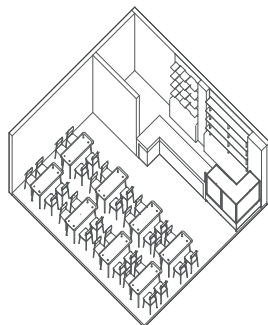
Crafts room (Using scissors, rulers)



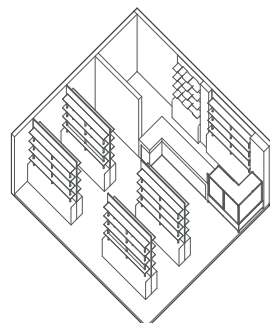
Toy chamber



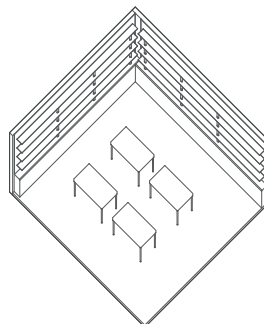
Gardening (tool using)



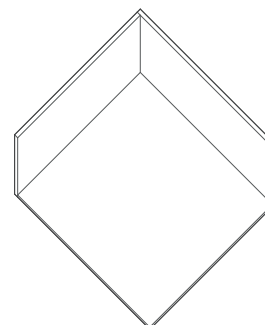
Dinning room



Candy shop



Reading room



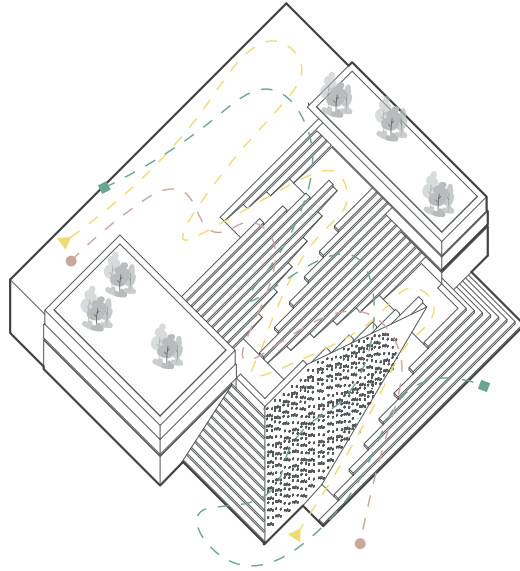
Chatting room

Figure 33: Combination of circulation and play space

NEO COLLECTIVISM

Thesis 2021

Combining game space with Circulation allows people to move through the game space. Furthermore, changing the applicability of the game and Circulation to older people, allowing older people and children to play together and interact.



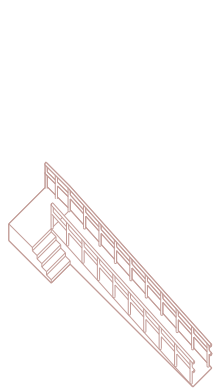
- ▶ - - - ▶ Movement of device-helped aging people or disabled children
- - - - ● Movement of self-helping aging people
- - - - ■ Movement of Children
- - - - □ Movement of Staff

	Aging people	Children	Staff
Horizontal Mobility	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Vertical Mobility	● ● ● ● ○	● ● ● ● ●	● ● ● ● ●
Safety	● ● ● ● ●	● ● ● ● ○	● ● ● ● ●
Seating	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
Resting	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
Sociability	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Playing	● ○ ○ ○ ○	● ● ● ● ○	● ● ● ○ ○
Supervision	○	●	

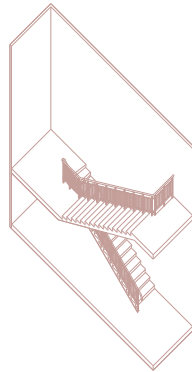
Figure 34: Analysis of combination of circulation and play space

Narrative Design

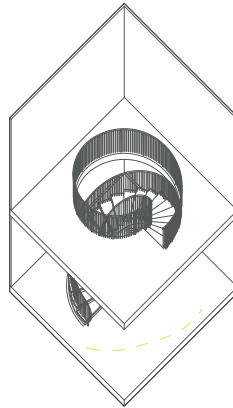
TAXONOMY--COMBINATION circulation + play



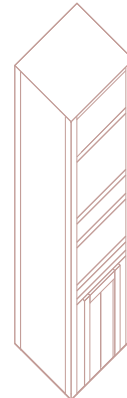
Ramp for entrance



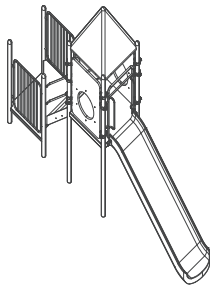
Fire stairs



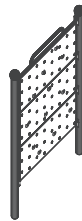
Spiral staircase



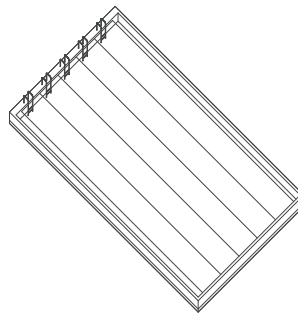
Elevator



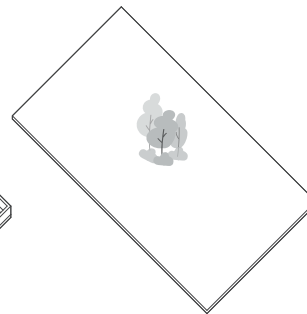
Children's slide



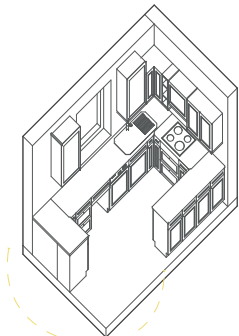
Climbing wall



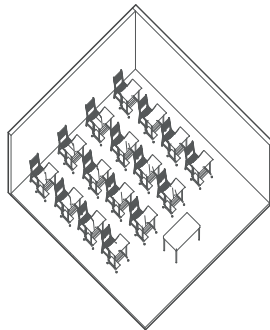
Swimming pool



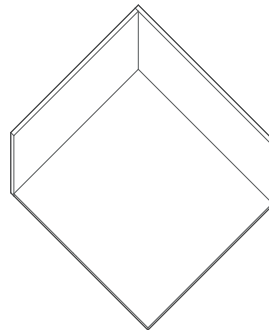
Open square



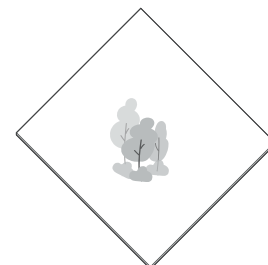
Kitchen (tool using)



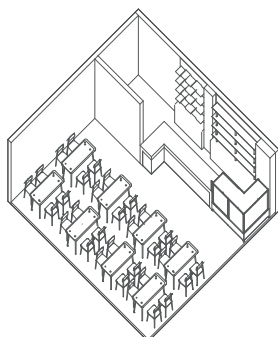
Crafts room (Using scissors, rulers)



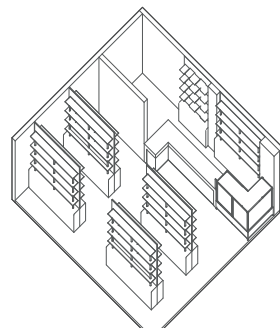
Toy chamber



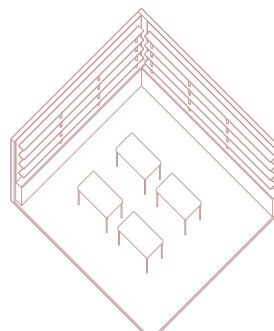
Gardening (tool using)



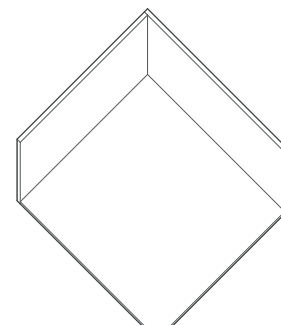
Dinning room



Candy shop

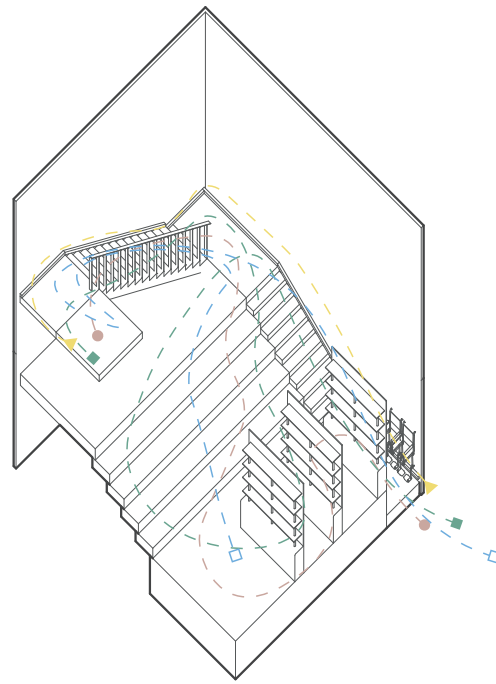


Reading room



Chatting room

Figure 35: Combination of circulation and play space



- ▶ - - - ▶ Movement of device-helped aging people or disabled children
- - - - ● Movement of self-helping aging people
- - - - ■ Movement of Children
- - - - □ Movement of Staff

	Aging people	Children	Staff
Horizontal Mobility	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Vertical Mobility	● ● ● ● ○	● ● ● ● ●	● ● ● ● ●
Safety	● ● ● ● ○	● ● ● ● ○	● ● ● ● ●
Seating	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
Resting	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
Sociability	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●
Playing	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○
Supervision	○	○	

Figure 36: Analysis of combination of circulation and play space

Narrative Design

TAXONOMY--COMBINATION

circulation + play

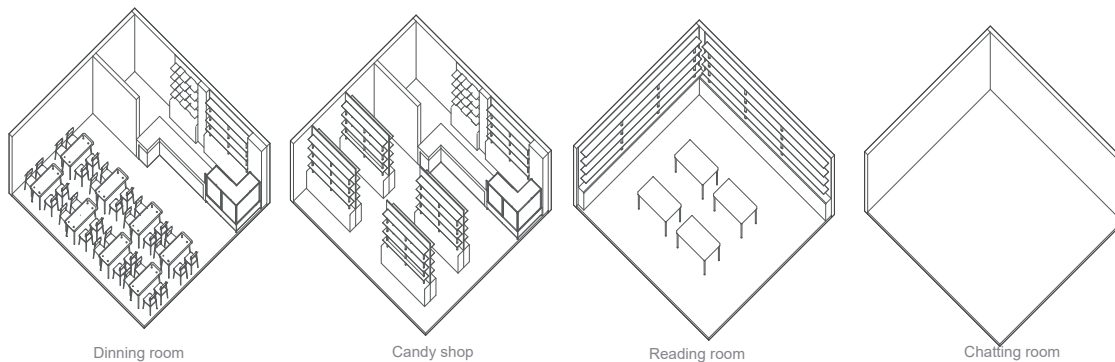
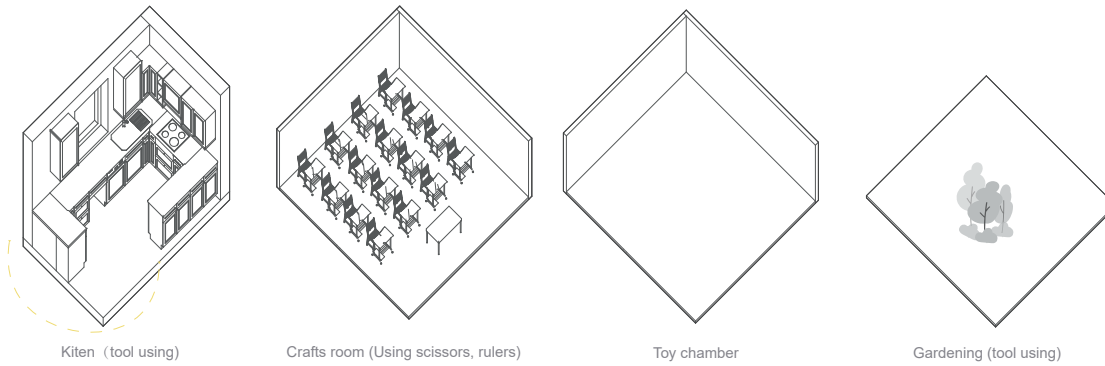
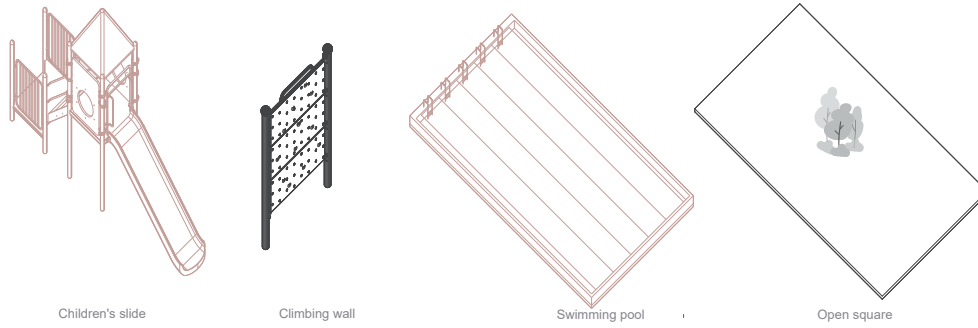
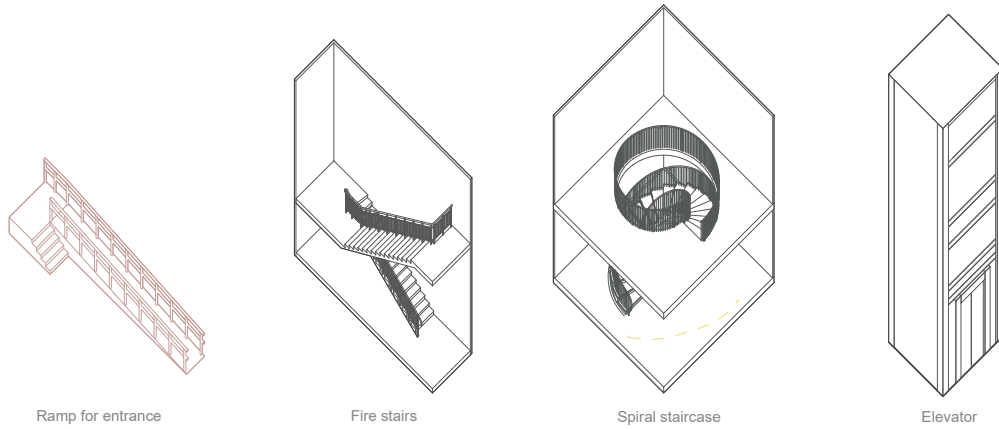
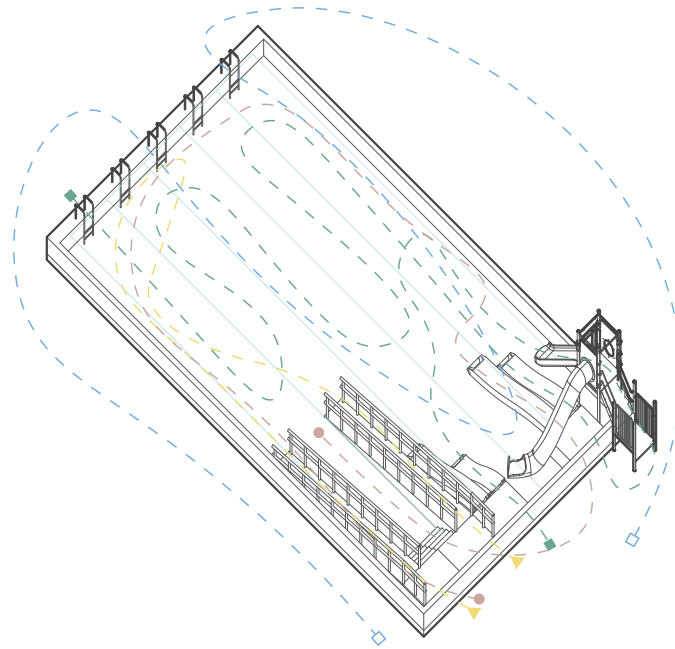


Figure 37: Combination of circulation and play space



- ▶ - - - ▶ Movement of device-helped aging people or disabled children
- - - - ● Movement of self-helping aging people
- - - - ■ Movement of Children
- - - - □ Movement of Staff

	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●
Vertical Mobility	●●●●○	●●●●●	●●●●●
Safety	●●●●○	●●●●○	●●●●●
Seating	●●○○○	●●○○○	●●○○○
Resting	●●○○○	●●○○○	●●○○○
Sociability	●●●●●	●●●●●	●●●●●
Playing	●●●○○	●●●●●	●●●○○
Supervision	●	●	

Figure 38: Analysis of combination of circulation and play space

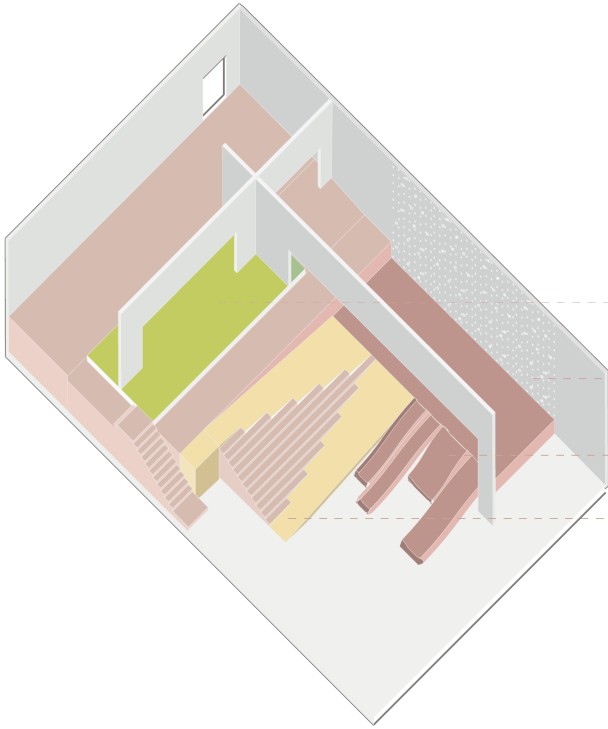
06 DESIGN OUTCOMES

On the basis of the previous three experiments of combinations of different space, three prototypes of combinations will be the final design outcomes. One is circulation-based space, which could be an entrance hall for a public space. The second one is a large-motor-skills of play-based space, a swimming pool. The third one is a fine-motor-skills of play-based space, a dining room.

Entrance

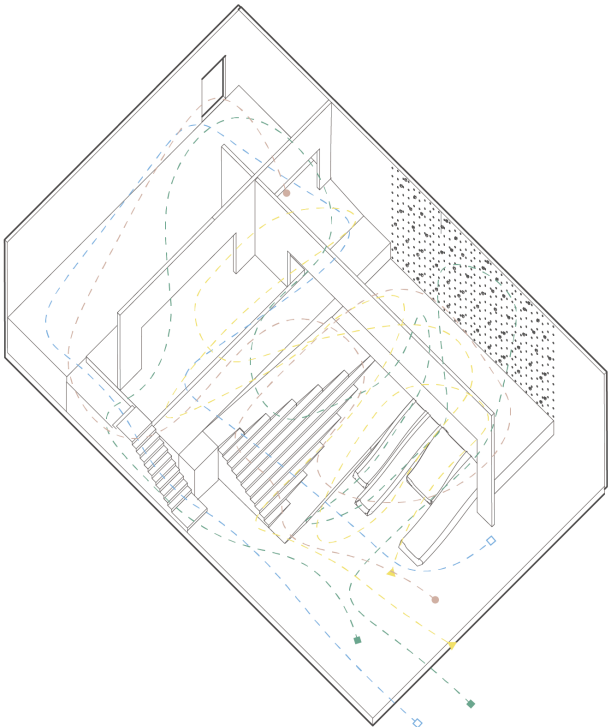
TAXONOMY--COMBINATION

circulation



- X-space
Gardening/Reading/Cafe, people take some rest here
- Climbing wall
Children play, supervised by staff or the elderly
- Slide
The elderly & children play together
- Ramp
For device-helping aging people & the disabled

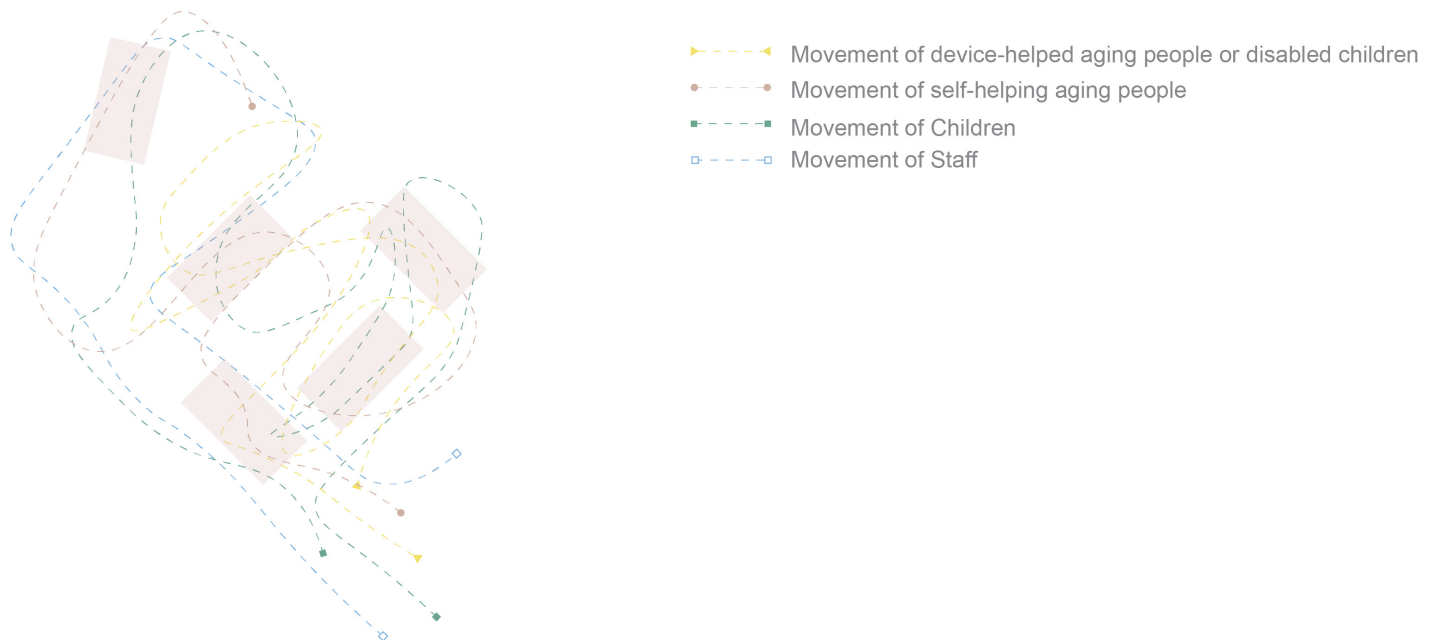
NEO COLLECTIVISM



- ▶ Movement of device-helped aging people or disabled children
- Movement of self-helping aging people
- Movement of Children
- Movement of Staff

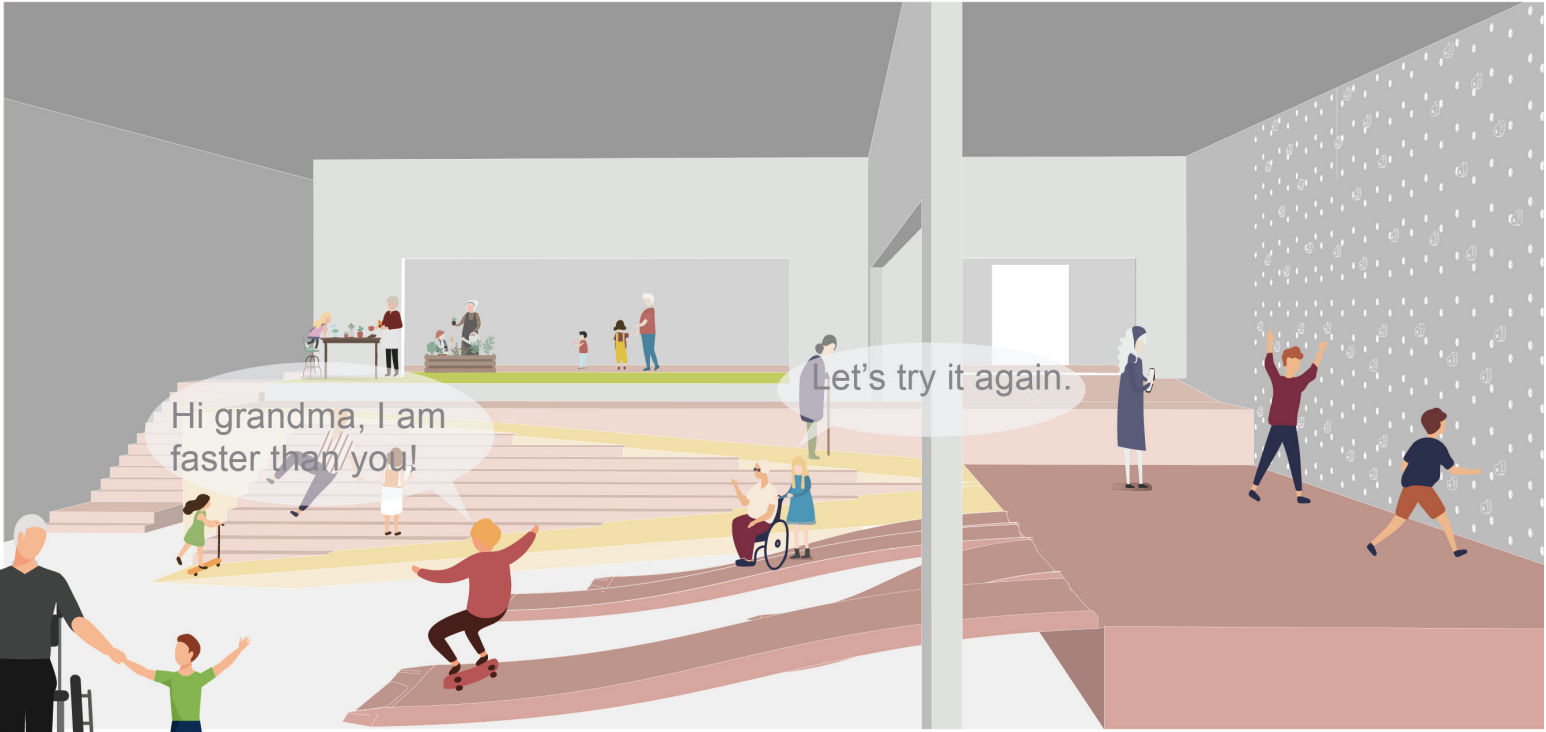
	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●
Vertical Mobility	●●●●○	●●●●●	●●●●●
Safety	●●●●●	●●●●○	●●●●●
Seating	●●●●○	●●●●○	●●●●○
Resting	●●●●○	●●●●○	●●●●○
Sociability	●●●●●	●●●●●	●●●●●
Playing	●○○○○	●●●●○	●●●○○
Supervision	●	●	

The entrance hall is a circulation - based Space, which could be an entrance hall for a public space. In this design, the interaction of ramps and stairs is strengthened, and the slides for children to play and the ramps for the elderly are assimilated to promote the interaction of play between the elderly and children.



TAXONOMY--COMBINATION

circulation



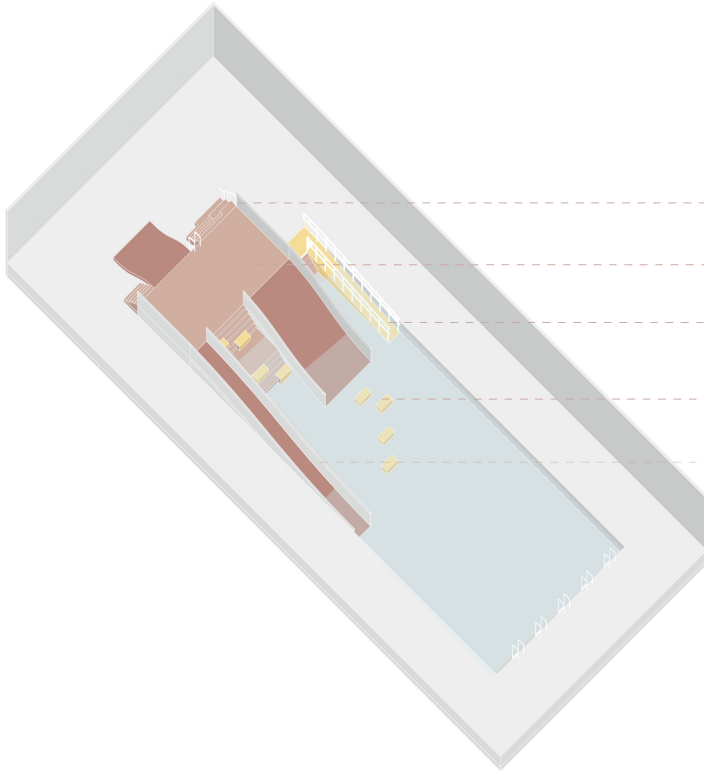
NEO COLLECTIVISM



Swimming pool

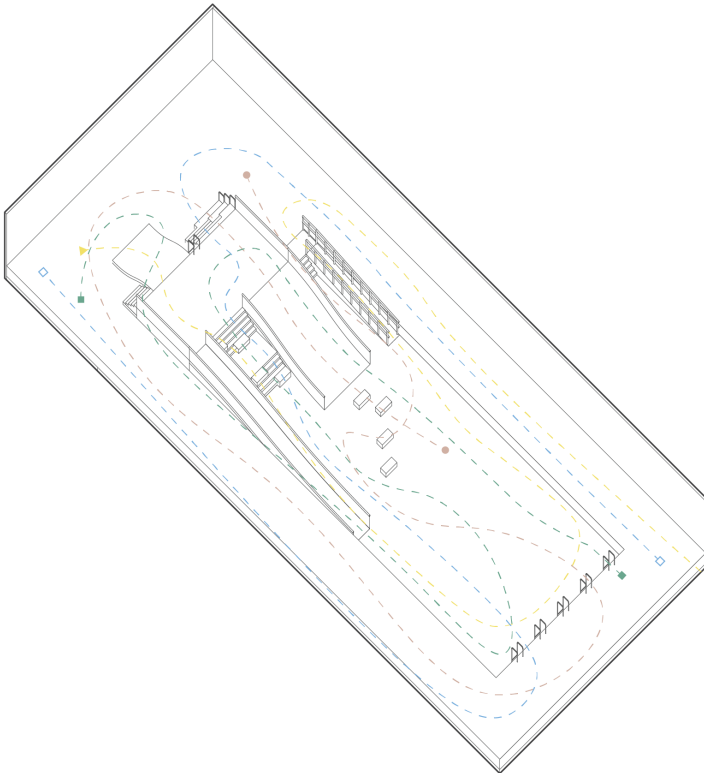
TAXONOMY--COMBINATION

play



- Stairside seats
For people to communicate and take soem rest
- Gathering space
For people to communicate
- Ramp
For device-helping aging people & the disabled
- Seats
For people to take a rest in the water
- Ramp + Slide
For people to play together

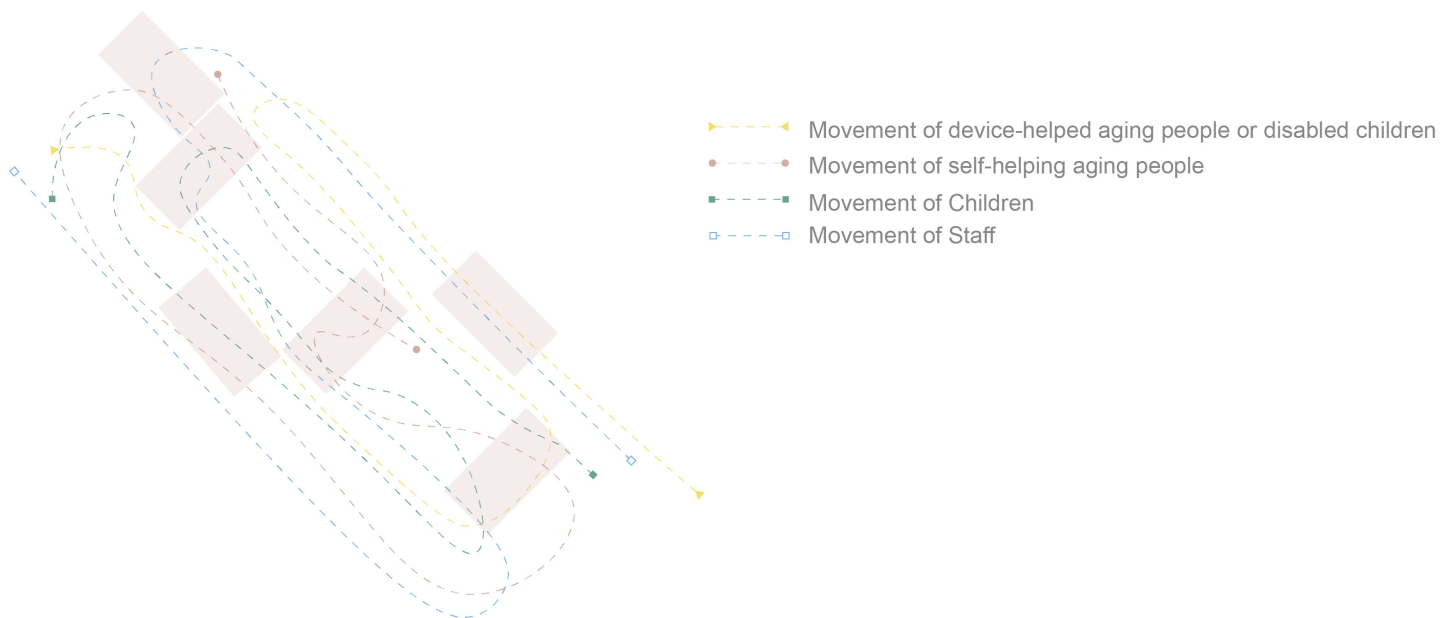
NEO COLLECTIVISM

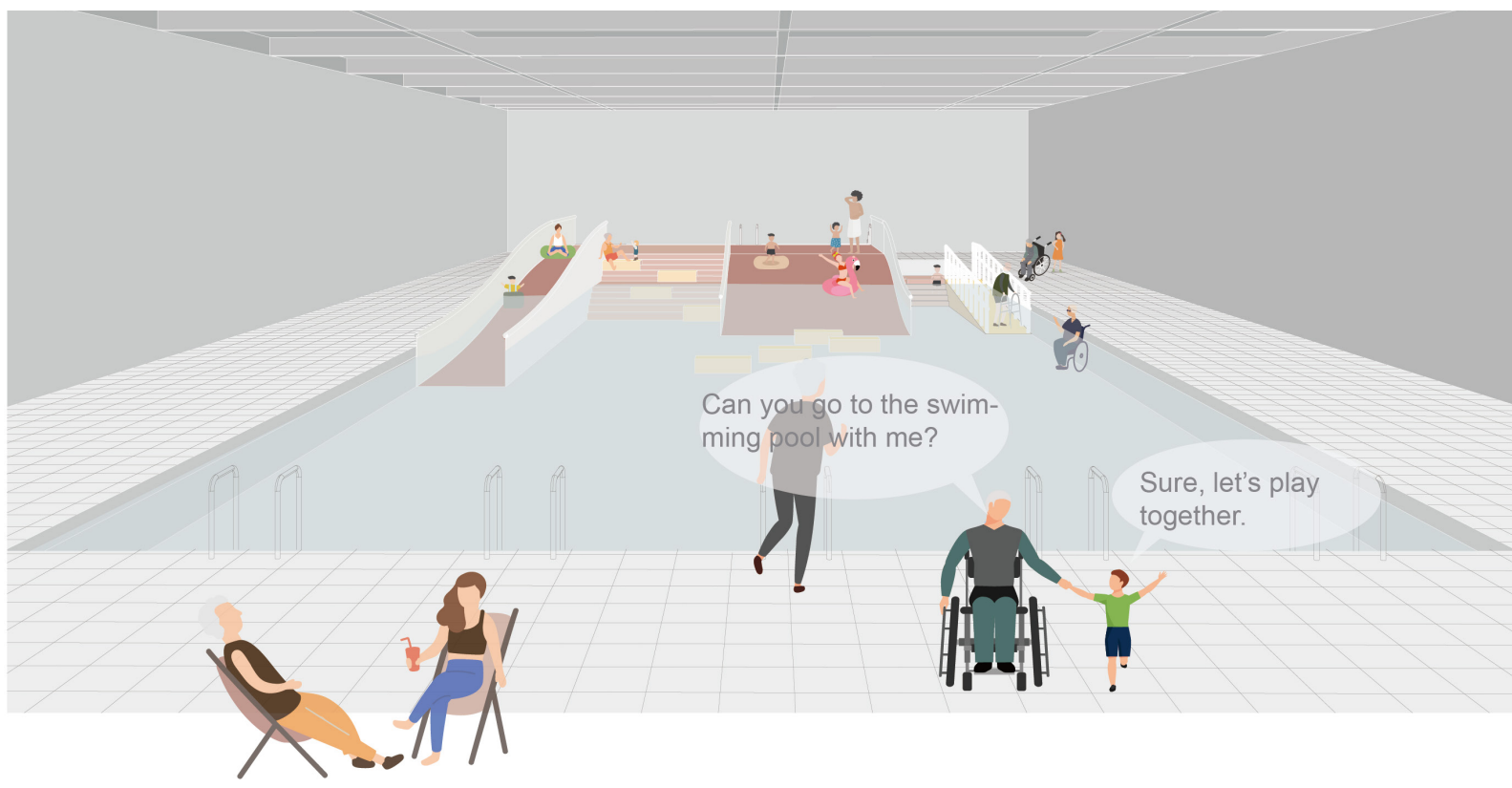


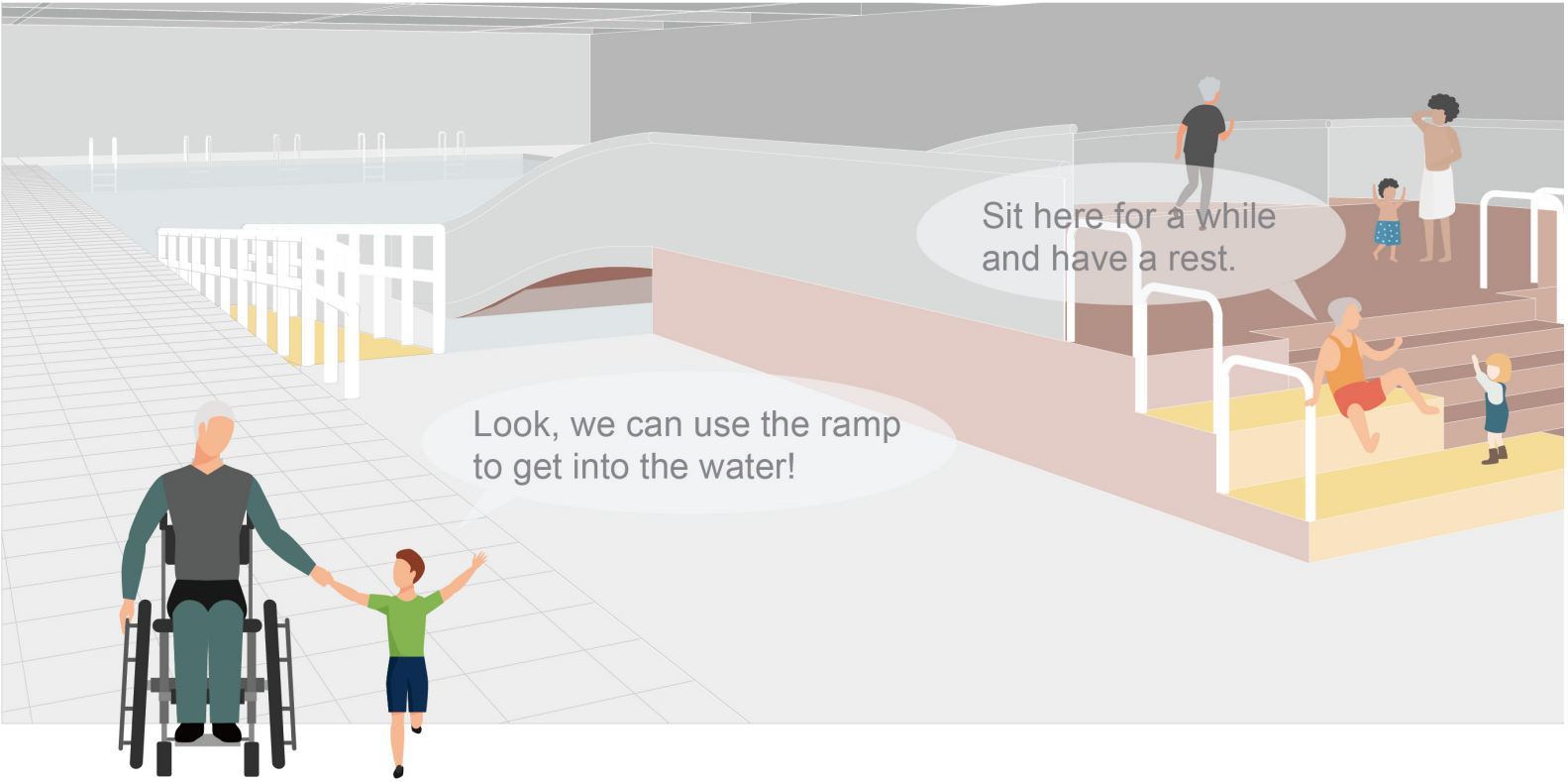
- ▶ Movement of device-helped aging people or disabled children
- Movement of self-helping aging people
- Movement of Children
- ◻ Movement of Staff

	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●
Vertical Mobility	●●●●○	●●●●●	●●●●●
Safety	●●●●●	●●●●○	●●●●●
Seating	●●●●○	●●●●○	●●●●○
Resting	●●●●○	●●●●○	●●●●○
Sociability	●●●●●	●●●●●	●●●●●
Playing	●○○○○	●●●●○	●●●○○
Supervision	●	●	

The swimming pool is a large motor skill of play-based space, which is a swimming pool which not only can be used by children, but also for the device-helping elderly and self-helping elderly people. The ramps and slides are assimilated again, for which not only can children play here, but also the elderly can get into the water. Also, seats are added for people who want to take a rest or communicate with others.





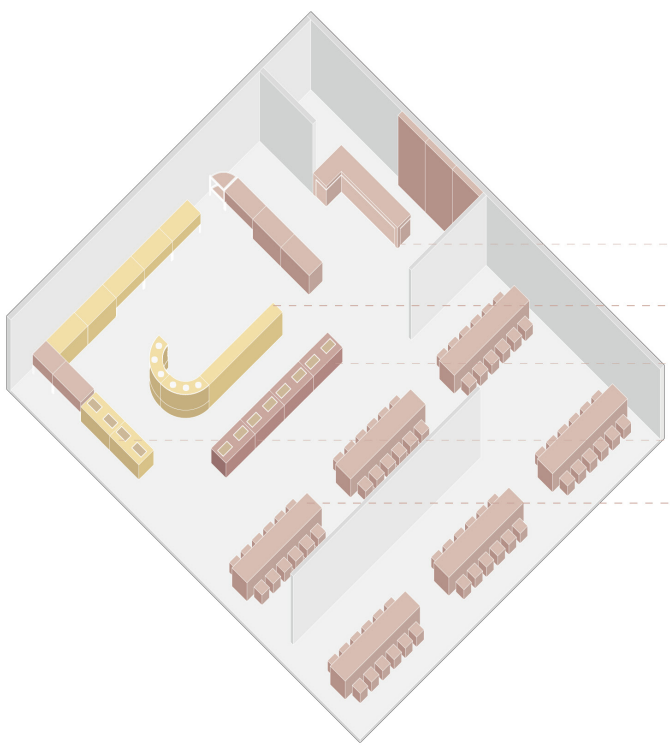


MEO COLLECIVIA2M

Dining Room

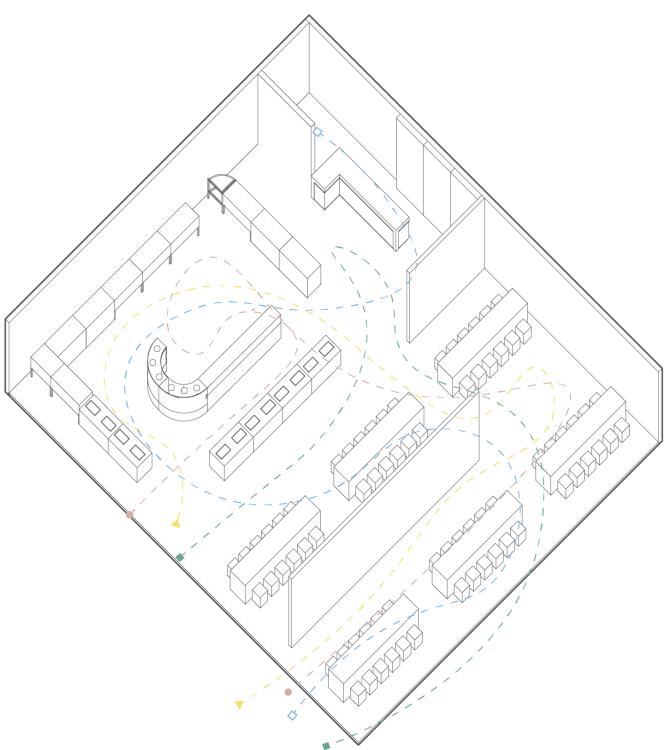
TAXONOMY--COMBINATION

play



- Reception
- Cooking space
For the elderly & staff
- Food preparation
For children who want to learn to cook
- Food preparation & Cooking space
For device-helping aging people & the disabled
- Dining area & Chatting area
For people to play together

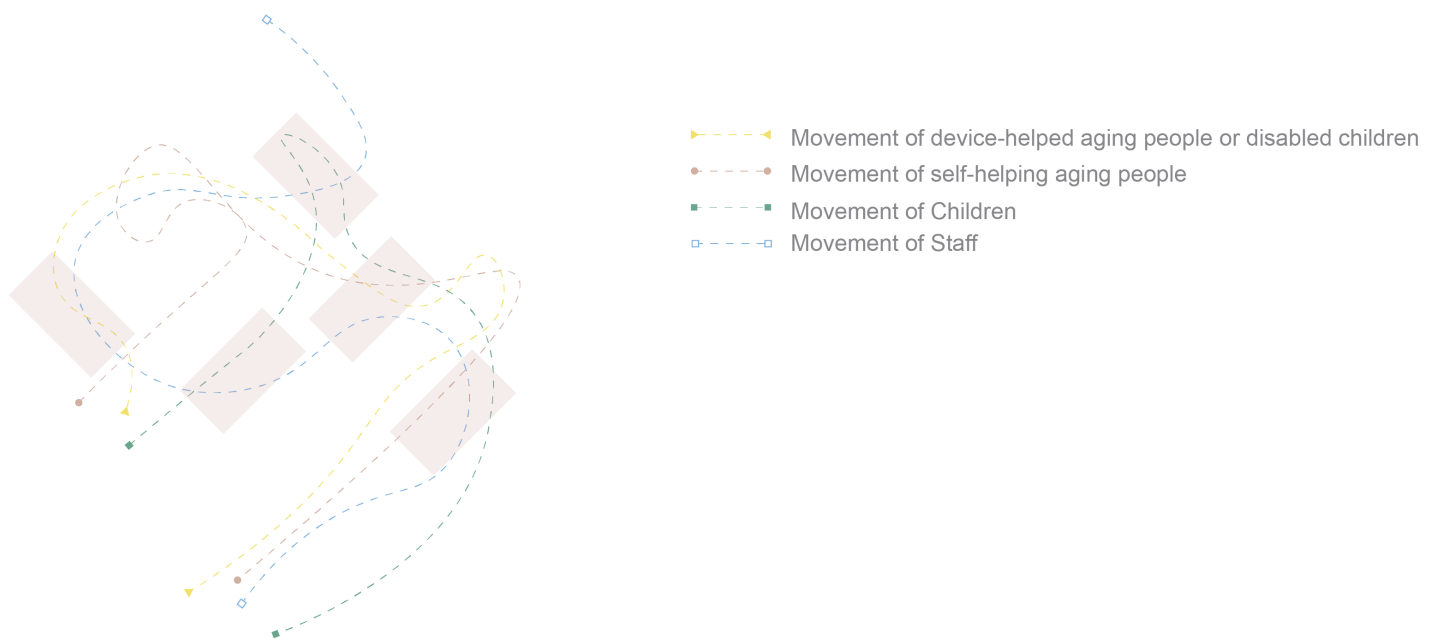
NEO COLLECTIVISM



- ▶ Movement of device-helped aging people or disabled children
- ▶ Movement of self-helping aging people
- ▶ Movement of Children
- ▶ Movement of Staff

	Aging people	Children	Staff
Horizontal Mobility	●●●●●	●●●●●	●●●●●
Vertical Mobility	●●●●○	●●●●●	●●●●●
Safety	●●●●●	●●●●○	●●●●●
Seating	●●●●○	●●●●○	●●●●○
Resting	●●●●○	●●●●○	●●●●○
Sociability	●●●●●	●●●●●	●●●●●
Playing	●●●●○	●●●○	●●●○
Supervision	○	●	

The dining room is a fine motor skill of play-based space, it's a renovation of a dining hall, in which the elderly can cook by themselves, and children could learn some cooking skills like cutting vegetables from the elderly. Also, there are some eating or resting area. The elderly can get some help from children to help them to call their families through the internet. Teaching and learning will also improve the interaction between the elderly and children.







06 DISCUSSIONS

We must redesign and construct the public space where the elderly live to alleviate the problem of social isolation they face. The problem is serious, but not many people notice it. In China, inadequate and aging facilities for the elderly have not been sufficiently improved. Nevertheless, at the same time, the problem of an aging population is growing. For older people, enhancing communication and interaction with children can boost their muscle activity and inject vitality into their spirit. The elderly and children, they stay together, play together, and keep each other company in the public spaces of the intergenerational community. In this way, Neo-Collectivism, a new and different form of family Collectivism, is established among strangers, thus alleviating the problem of social isolation of the elderly.

07 MEDIOGRAPHY

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13. "認知症になっても、自分らしい「生活」を。入居率ほぼ 100%の高齢者住宅「銀木犀」の魅力." *soar* (ソア), January 27, 2020. <https://soar-world.com/2018/06/13/ginmokusei/>.
14. Abdel, Hana. "The Mann School – White Flower Hall / Envisage." *ArchDaily*. ArchDaily, March 13, 2021. https://www.archdaily.com/958480/the-mann-school-nil-white-flower-hall-envisage?ad_source=search&ad_medium=search_result_all.

IMAGES

Figure 1: Vision of Neo-Collectivism.
Source: Author.

Figure 2: Vision of Neo-Collectivism.
Source: Author.

Figure 3: Concept of Collectivism.
Source: Author.

Figure 4: Proportion analysis chart of age population.
Data Source: National Bureau of Statistics; Drawn by Author.

Figure 5: Young generation's migration.
Source: Author.

Figure 6: Age structure of Internet users in China.
Source: CNNIC. Rep. Statistical Report on Internet Development in China. Beijing: CNNIC, 2019.

Figure 7: Traditional nursing home analysis-Residential and Nursing Home Simmering / Josef Weichenbrger Architects + GZS.
Source: Sánchez, Daniel. "Residential and Nursing Home Simmering / Josef Weichenbrger Architects + GZS." ArchDaily. ArchDaily, September 3, 2012. https://www.archdaily.com/268705/residential-and-nursing-home-simmering-josef-weichenbrger-architects-gzs?ad_medium=gallery.

Figure 8: Analysis of the time spent by parents with their children
Source: "Parenting in America." Pew Research Center's Social & Demographic Trends Project. Pew Research Center, May 30, 2020. <https://www.pewresearch.org/social-trends/2015/12/17/parenting-in-america/>.

Figure 9: Analysis of the time spent by parents with their children.
Source: Author.

Figure 10: Basic needs for the elderly's health.
Source: Author.

Figure 11: Basic needs for children's health
Source: Author.

Figure 12: Analysis of the co-living space of the elderly
Source: "認知症になっても、自分らしい「生活」を。入居率ほぼ100%の高齢者住宅「銀木犀」の魅力." soar (ソア), January 27, 2020. <https://soar-world.com/2018/06/13/ginmokusei/>.

Figure 13: Analysis of the co-living space of the elderly
Source: Author.

Figure 14: The Mann School – White Flower Hall / Envisage.

Source: Abdel, Hana. “The Mann School – White Flower Hall / Envisage.” ArchDaily. ArchDaily, March 13, 2021. https://www.archdaily.com/958480/the-mann-school-nil-white-flower-hall-envisage?ad_source=search&ad_medium=search_result_all.

Figure 15: Analysis of the welfare home for children.

Source: Author.

Figure 16: comics of the vision of the public space of the intergeneration community

Source: Author.

Figure 17: Context analysis of Wuwei, Gansu.

Data Source: National Bureau of Statistics; Drawn by Author.

Figure 18: Urban analysis of Wuwei, Gansu.

Source: Adapted from google map.

Figure 19: Urban analysis of Wuwei, Gansu.

Source: Adapted from google map.

Figure 20: The original map of the site.

Source: Author.

Figure 21: The movement of children and the elderly before the public space is designed.

Source: Author.

Figure 22: The location of the public space.

Source: Author.

Figure 23: The movement of children and the elderly after the public space is designed.

Source: Author.

Figure 24: Comparison of the overlap of movement tracks between the elderly and children before and after the establishment of public space.

Source: Author.

Figure 25: Timeline of the elderly's activities during the day.

Source: Author.

Figure 26: Timeline of a child's activities during the day.

Source: Author.

Figure 27: Timeline of a staff's activities during the day.

Source: Author.

Figure 28: Three main activities for the elderly and children.

Source: Author.

Figure 29: Analysis of circulation.
Source: Author.

Figure 30: Analysis of play.
Source: Author.

Figure 31: Analysis of play.
Data Source: National Bureau of Statistics; Drawn by Author.

Figure 32: Analysis of play.
Source: Adapted from google map.

Figure 19: Urban analysis of Wuwei, Gansu.
Source: Adapted from google map.

Figure 33: Combination of circulation and play space.
Source: Author.

Figure 34: Analysis of combination of circulation and play space.
Source: Author.

Figure 35: Combination of circulation and play space.
Source: Author.

Figure 36: Analysis of combination of circulation and play space.
Source: Author.

Figure 37: Combination of circulation and play space.
Source: Author.

Figure 38: Analysis of combination of circulation and play space.
Source: Author.