SENIOR REJUVENATION

Reconfiguration Of Community Public Space And Interpersonal Relations

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Syracuse University School of Architecture
Master of Architecture Thesis
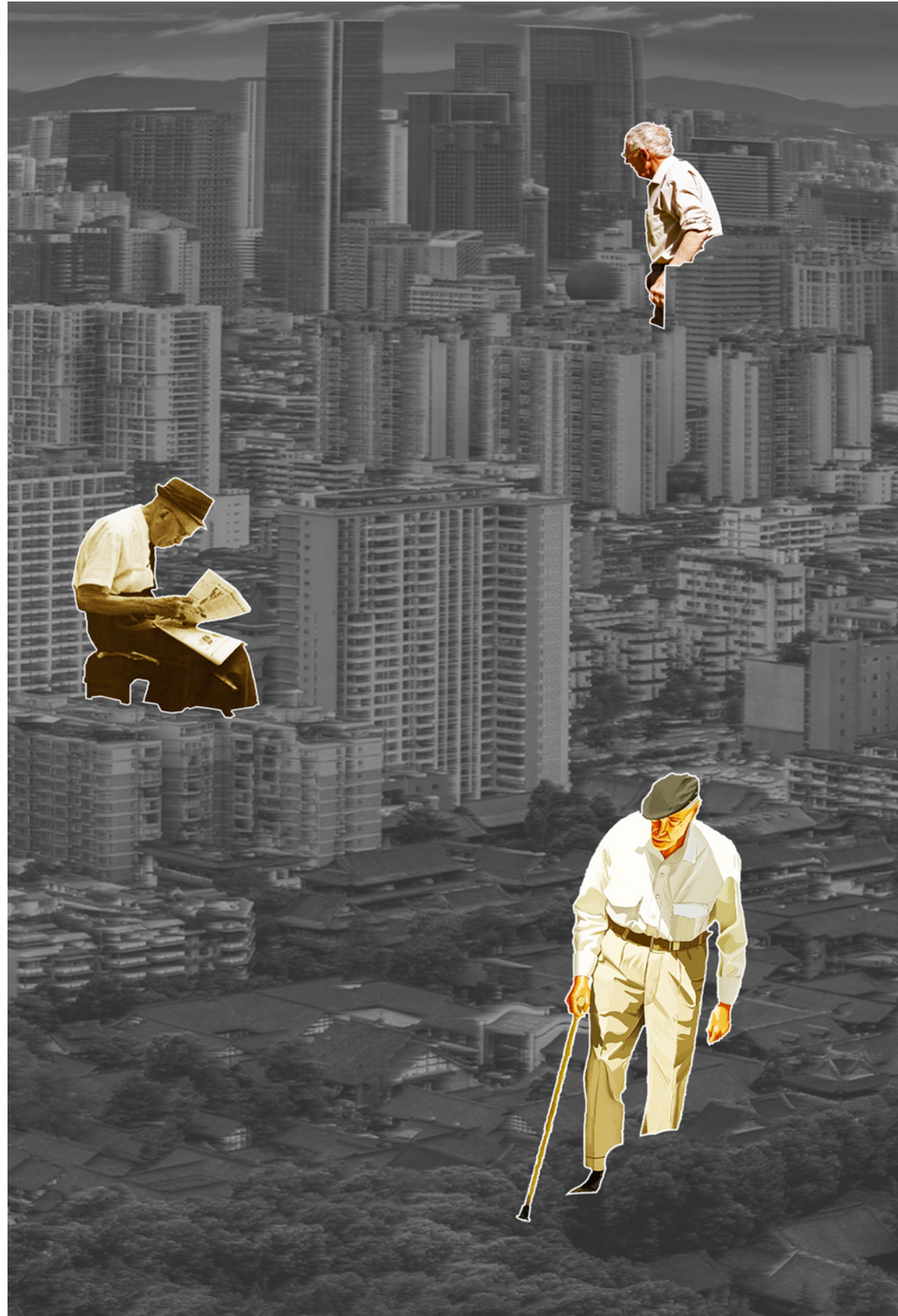Advisor: Brian Lonsway
May 2022

FIGURE 1. SENIORS IN MEGA CITY.
EDITED BASED ON: YIHAO ZHANG. DACI COMMUNITY. 2018

ABSTRACT

With the development of China's urbanization and the expansion of the urban scale, according to the National Bureau of Statistics of China, China's urbanization has exceeded 60% by 2021, also in order to meet the demand of population growth in urban, the process has led to a change in the residential pattern of the population, so that gated communities, which are commercial housing, dominate the residential pattern of cities and towns.

Along with the aging process, this living model brings advantages and disadvantages to the aging population.

Currently, because of the expansion of cities and the lack of large public outdoor areas, the transportation distance of at least one hour makes most of the urban seniors prefer to be active in their communities. However, as the outdoor activities of the seniors groups are affected by the monotony of the community public areas, incomplete facilities and pandemic, as well as the use of smartphones and the Internet, the outdoor activities of the seniors groups, as of 2021, according to Asian Development blog, outdoor activity among seniors in China has decreased by 30 percent. According to the W.H. O, a complete or near-complete lack of contact between people and society leads to social isolation, and the report states that long-term social isolation can seriously increase loneliness and endanger the mental health of seniors, so this reduction in outdoor activities is dangerous for seniors.

Therefore, my project aims to reduce social isolation and enhance mental and physical health by rebuilding the public areas of the community and enhancing the attractiveness of the community to promote outdoor activities and communication exchange among the seniors.

POSTITION

Based on the study, I learned that the prefabricated building can provide diversified options and fast installation, and can improve the community public area in the shortest time, also suitable for different sizes of communities, and has sufficient advantages in terms of cost and environmental friendly, so it is worth the attention of existing community managers, real estate developers and architects.

Topic

In general, my thesis design is a modular, prefabricated, demountable building that can be combined with options for communities of various sizes to quickly build public space that improve and secure the social needs of the seniors.This device encourages outdoor activities for the seniors and enhances communication to reduce social isolation and the potential dangers of social isolation. Based on this I need to investigate which kind of activities can be appealing to seniors, how to establish interaction between seniors through these activities,which materials and which types of elements can be incorporated into the design of such buildings.

In China's Rapidly Aging Society, How Can The **Community Retirement Model** Reactivate The Public Space Of The Community Through A **Modular Design Approach** And Rapidly Improve **The Quality Of Public Space** In Order To **Secure** And **Stimulate** The Social Activities Of Seniors?

1. SOCIAL BACKGROUND:
Since the foundation of the People's Republic of China in 1949, the government has required by law that all adult children take care of their parents, and only childless elders are cared for in welfare institutions by the government. These elder institutions for the childless were actually stigmatized before the 1980s (Shang, 2001) and the mainstream viewpoint that 'sending parents to nursing homes is unfilial' had been formed. Families with adult children had no expectations of institutional care for elderly parents due to the social background

2. INSTITUTIONAL CONDITION
There is still a degree of disparity in the facilities of China's nursing homes, and the problems and solutions of institutionalized aging in China. The problems are mainly related to unregulated nursing homes, shortage of caregivers, lack of family recognition and psychological comfort.

"Although supportive policies on institutional care and nursing homes have increased rapidly in recent years, studies show that Chinese elders repel the idea of the nursing home and consider institutional elder care as the last choice "
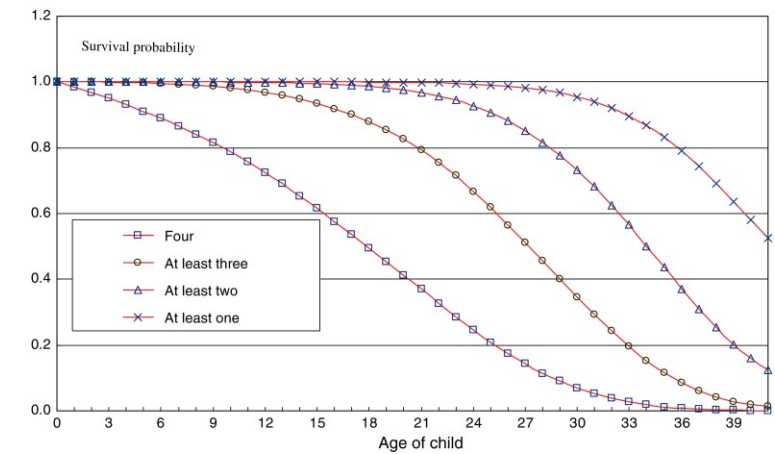

FIGURE 1.Age-specific survival probability curves concerning the coexistence of three generations in the 4-2-1 family structure
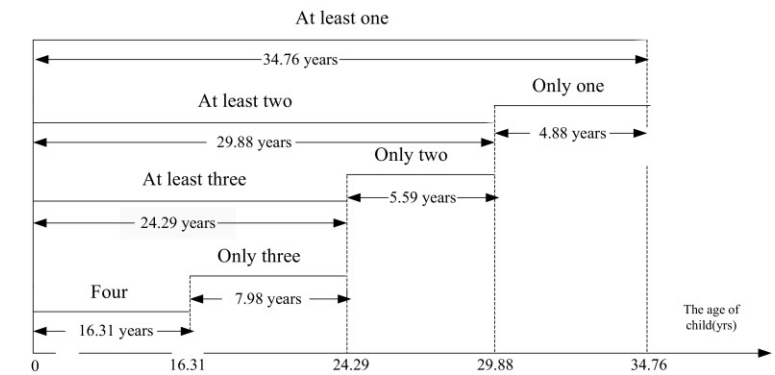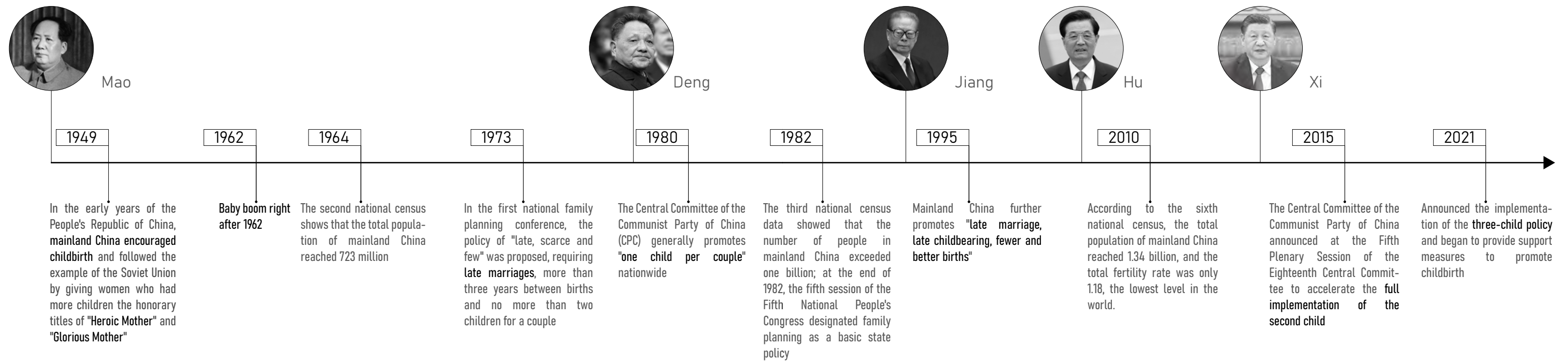

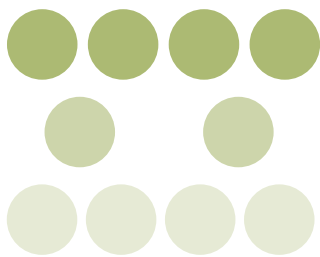FIGURE 2.Survival years of grandparents in the 4-2-1 family structure, conditional on the survival of two parents and one child

Mao

Deng

Jiang
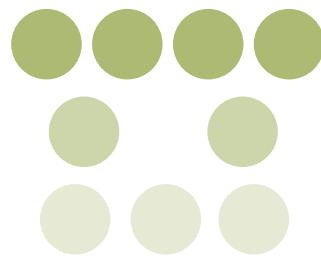
Hu

Xi

1949

1962

1964

1973

1980

1982

1995

2010

2015

2021

In the early years of the People's Republic of China, **mainland China encouraged childbirth** and followed the example of the Soviet Union by giving women who had more children the honorary titles of "**Heroic Mother**" and "**Glorious Mother**"

Baby boom right after 1962

The second national census shows that the total population of mainland China reached 723 million

In the first national family planning conference, the policy of "late, scarce and few" was proposed, requiring **late marriages**, more than three years between births and no more than two children for a couple

The Central Committee of the Communist Party of China (CPC) generally promotes "**one child per couple**" nationwide

The third national census data showed that the number of people in mainland China exceeded one billion; at the end of 1982, the fifth session of the Fifth National People's Congress designated family planning as a basic state policy

Mainland China further promotes "**late marriage, late childbearing, fewer and better births**"

According to the sixth national census, the total population of mainland China reached 1.34 billion, and the total fertility rate was only 1.18, the lowest level in the world.

The Central Committee of the Communist Party of China announced at the Fifth Plenary Session of the Eighteenth Central Committee to accelerate the **full implementation of the second child**

Announced the implementation of the **three-child policy** and began to provide support measures to promote childbirth

1ST GEN

2ND GEN

3RD GEN

4TH GEN

GRANDPARENTS   PARENTS   CHILDREN
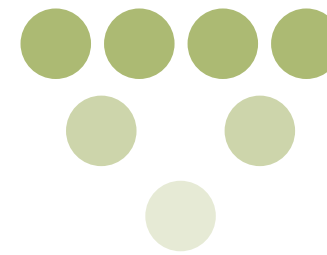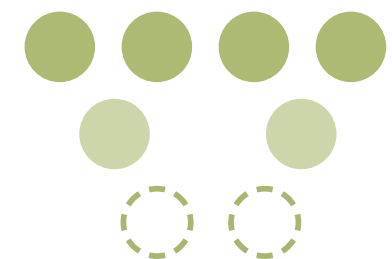
FIGURE 3.Generation and changing with Chinese Family Structure
Drawing based on:Attane, Isabelle . China's Family Planning Policy: An Overview of Its Past and Future. 2002
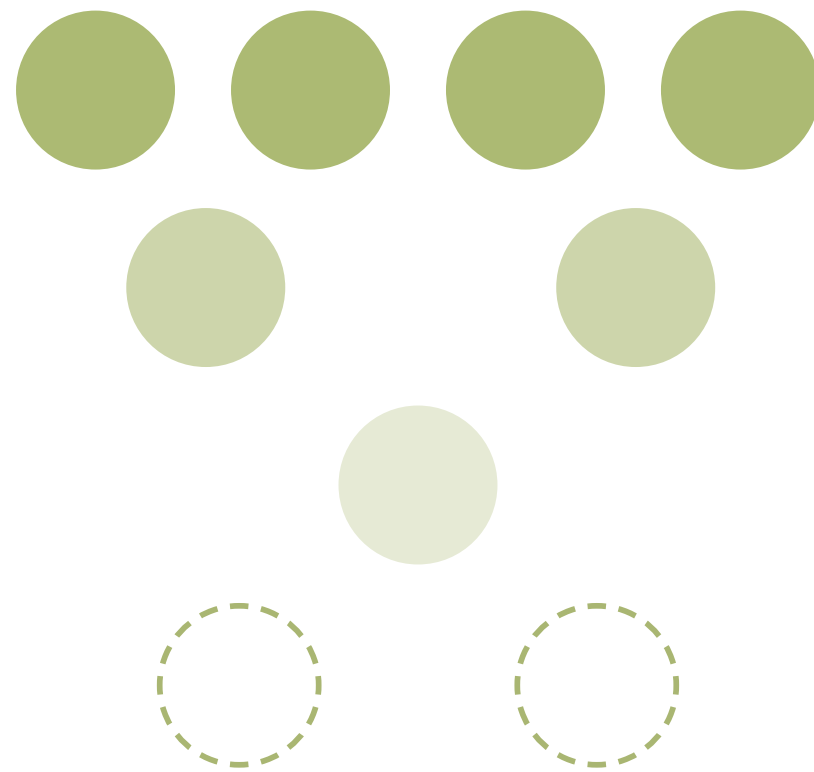
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FAMILY STRUCTURE DIAGRAM

FIGURE 4.Currently Chinese Family Structure
Drawing based on:Attane, Isabelle . China's Family Planning Policy: An Overview of Its Past and Future. 2002

3. SPECIFIC FAMILY STRUCTURE

The 4-2-1 family structure refers to a family in which three generations coexist in multiple family forms. The structure emphasizes social living communities based on marriage, kinship and adoption relationships and includes four older adults (grandparents and maternal grandparents), two parents and one child.

Once all grandparents reach "old age" (60+), the probability that all four will survive is only 0.61. Four grandparents are likely to co-exist for 16 years after the birth of a grandchild, then one will die and the remaining three may spend another 8 years together; finally, after the death of the other, the surviving two will co-exist for another 5 years. There is no significant difference in coexistence time between urban and rural families. As parents have children at an older age, the duration becomes shorter. The pressure of old age in this type of family is not as severe as expected.

Chinese culture is rooted in filial piety, which is the foundation of Chinese society. Filial piety is central to the system of public opinion monitoring that emerged from the traditional intergenerational support model; in addition, public opinion and law have reinforced the centrality of family support for the elderly. Traditionally, the security of the elderly has depended on the family, and corresponding social norms and policies have emerged. Family support will continue to be the dominant model of aging in China, so the proper use of community functions and forms is a necessary part of completing family support.

Source: Haomiao Zhang. Sending parents to nursing homes is unfilial? An exploratory study on institutional elder care in China.August 22, 2017
Eur J Ageing. The 4-2-1 family structure in China: a survival analysis based on life tables. May 20, 2011.

FIGURE 5.Unknown artist,The Classic of Filial Piety , Song Dynasty (960-1279)

10.3%   30.38%   214.6/429.1

FIGURE 6.Survival years of grandparents in the 4-2-1 family structure, conditional on the survival of two parents and one child
Drawing based on: Chenyan Li. Shaking your head at the mention of nursing homes? The national average occupancy rate of nursing homes is only 50%, what is the problem. Wenhui Times, 2021.

Confucian ethics does not view filial piety as a choice, but rather as an unconditional obligation of the child

There has not been any revolutionary change in elderly care in mainland China, family obligations are still strong and still "almost automatic"
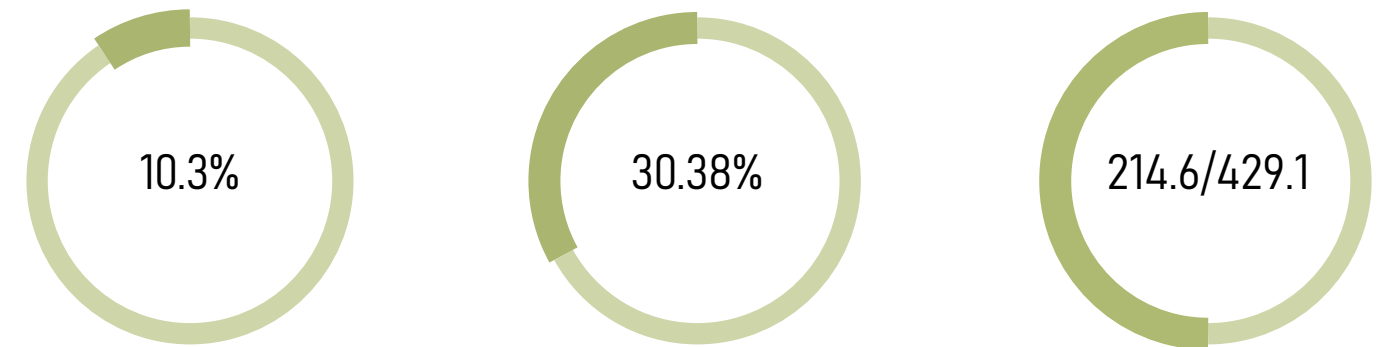
There are 42,300 elderly care institutions of all kinds nationwide, with 4,291,000 beds and 2,416,000 elderly residents. It is not difficult to see that the vacancy rate of elderly institutions is close to half.

In the choice of retirement, the vast majority of parents will choose to age in the community at home, only 10.70% of those who choose institutional care, while the questionnaire fillers themselves have a greater acceptance of the elderly institutions, 30.38% choose institutional care, this proportion is three times that of parents.
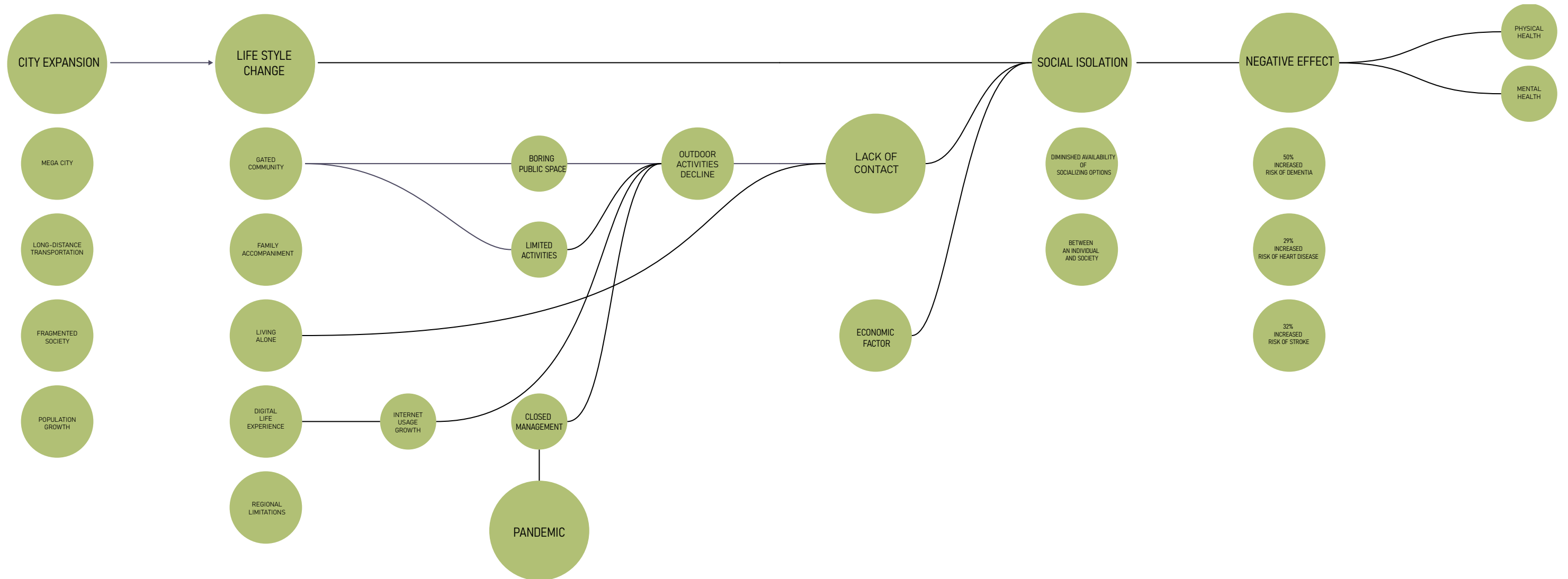
FIGURE 7.Development of Aging Issues in China

With the beginning of China's urbanization process, in the early 1990s, residential construction in China began to enter a period of real estate development, in the true sense of the word, and people were escaping more from unit compound dormitories into more free, dispersed and diversified living. The vast majority of them adopted the planning and design concept of closed communities, one of the factors of which is that Chinese people like the sense of security that comes with the love of a closed community.

While the public space contained in such a large closed environment provides an easy place for the elderly community to move around, the large number of urban highways built during the same period to meet urban expansion also cut off the connection between the various communities, and the travel of the elderly community, which relies on traditional transportation, became more limited with the expansion of the urban landscape and the change of transportation patterns, and the development of the city left them trapped within the confines of the community.

FIGURE 8: Typical Gated Community in China

FIGURE 10: Men playing Chinese Chess, Beijing CN

FIGURE 9: Unoccupied fitness area in Shanghai

FIGURE 11: Women playing Cards, Guangzhou CN

"Large-sized, high-rise, privately managed gated residential developments have become a dominant feature of the built environment in China's growing metropolis during the last 15 years. "

--Luigi Tomba, Gated Communities

One of the problems with gated communities is the environmental design and public building configuration that places the residential street interface, which has significant public and commercial value, inside the community through walls or railings. However, the **INADEQUATE CONSTRUCTION** of supporting facilities has resulted in existing closed communities that are severely lacking in vitality and diversity of activities, and are therefore unfriendly and unattractive to the elderly.

30%

3796

37%
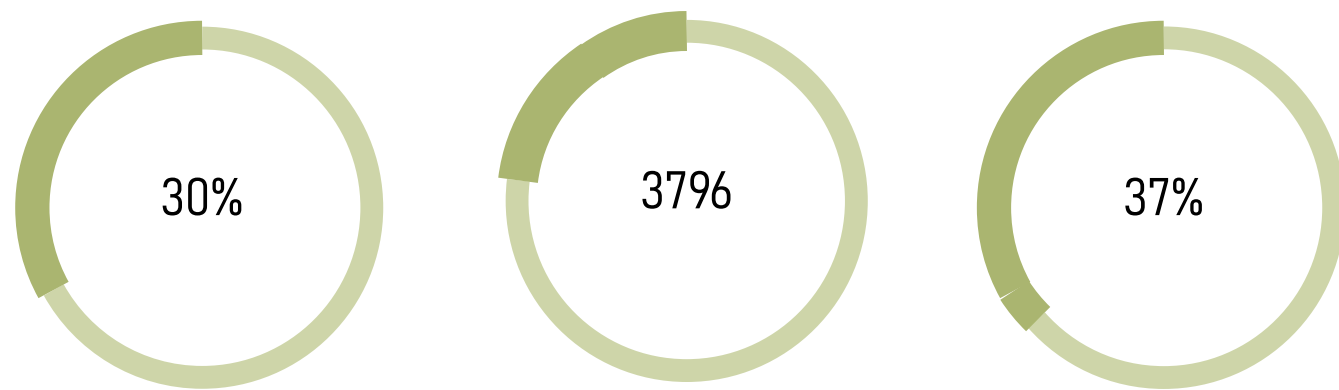
By 2021, according to the Asian Development blog, outdoor activity among older adults in China has decreased by **30%**. One set of statistics, based on a study of senior citizens in Shanghai, shows that the epidemic's lockdown policy has reduced the average number of daily steps taken by seniors by **3,796**, which is **1/4** the miles they spend outdoors in a day. According to the World Health Organization, a complete or near-complete lack of contact between people and society leads to social isolation, and the report states that prolonged social isolation can seriously increase loneliness and endanger the mental health of older adults, with statistics showing that **37 %** of Chinese seniors experienced depression and anxiety during the pandemic.

FIGURE 12. HOW PANDEMIC INFLUENCE THE ELDERLY'S OUTDOOR ACTIVITY.
Source:1.Ding Ding, Minna Cheng, Borja del Pozo Cruz, Tao Lin, Shuangyuan Sun, Li Zhang, Qinping Yang, Zhicong Ma, Jing Wang, Yingnan JiaHow COVID-19 lockdown and reopening affected daily steps: evidence based on 164,630 person-days of prospectively collected data from Shanghai, China.International Journal of Behavioral Nutrition and Physical Activity
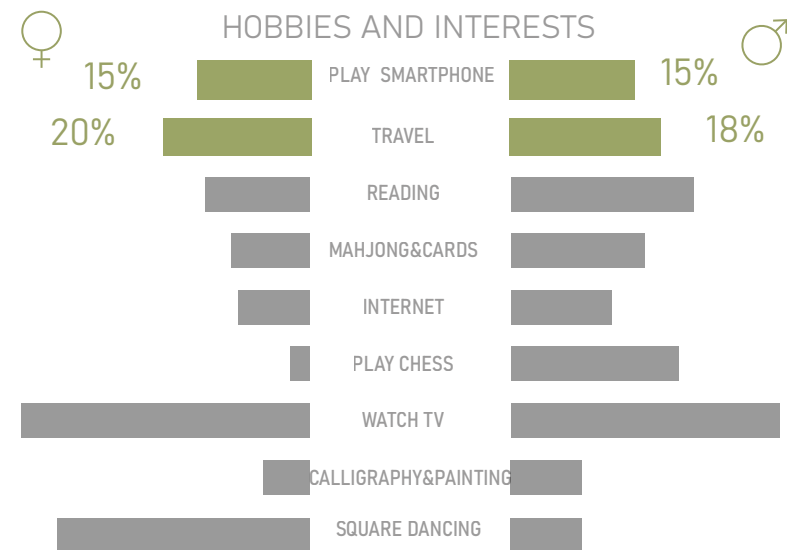2.

HOBBIES AND INTERESTS

♀		♂
15%	PLAY SMARTPHONE	15%
20%	TRAVEL	18%
	READING	
	MAHJONG&CARDS	
	INTERNET	
	PLAY CHESS	
	WATCH TV	
	CALLIGRAPHY&PAINTING	
	SQUARE DANCING	

FIGURE 12, Research on the interests of the elderly.
Drawing based on:Sequoia,China Urban Aging Consumption Insight Report,2019

34%   Less than 1/4 of free time

38%   1/4-1/2 of free time
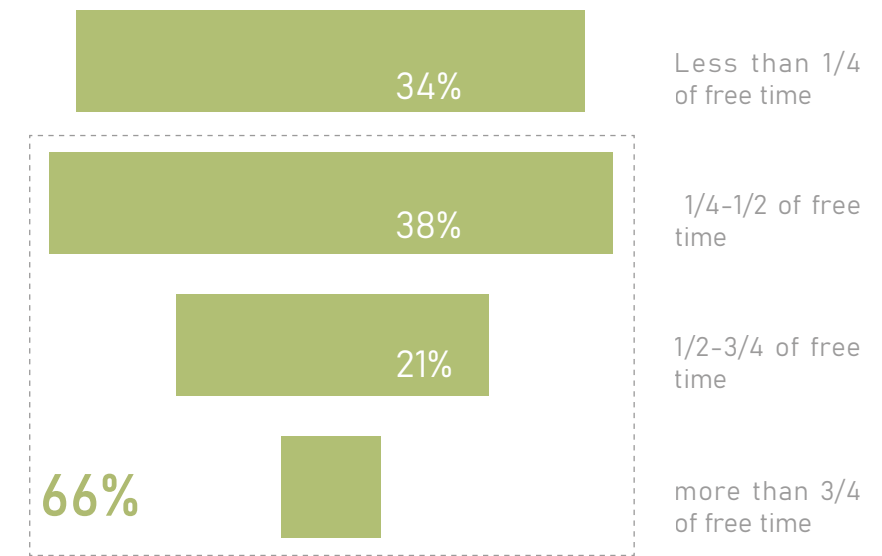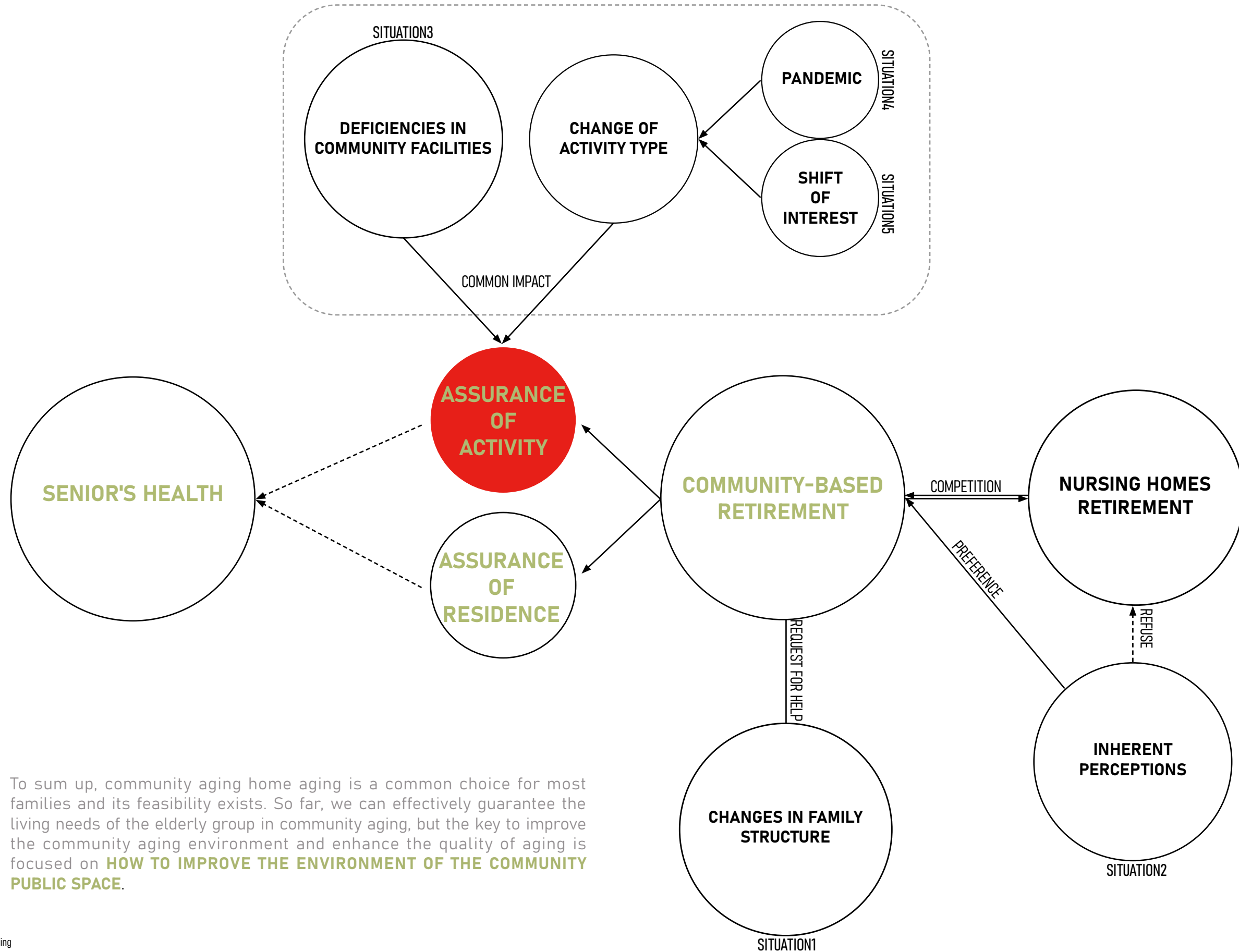
21%   1/2-3/4 of free time

66%   more than 3/4 of free time

FIGURE 13, Mobile Internet use time as a percentage of free time.
Drawing based on:Sequoia,China Urban Aging Consumption Insight Report,2019

Playing with smartphones (15%) and traveling (18%-20%) are the new favorites of the older adults surveyed. This feature is particularly evident among the 50-70 year olds surveyed, which is more than two times the average.

"According to data from last year's census(2020), China is home to 260 million people aged 60 and over. Of these, just 110 million — or more than one in three — described themselves as "online."
                    --Jiang Qiaolei, Associate Professor , Tsinghua University

Although smartphones can be a good way to alleviate the loneliness in the minds of the elderly, excessive use has affected their lives and such behavior limits their time spent outdoors. For empty-nesters who lack an offline social circle, as a way to ease their loneliness, they risk falling into long-term dependence on the Internet. Online scams and fake news targeting older adults are also common problems. However, our research shows that access to the internet is a net positive for older adults, opening up new worlds that allow them to find companies, access emotional support, find a variety of information and resources, and live happier lives life.

"According to a report on the internet use of China's elderly people released by mobile content aggregator Qutoutiao last year, 38.6 percent of people aged 60 or older were internet users.
The report showed around 0.2 percent of surveyed elderly spend at least 10 hours online per day."

                    -- Ma Chi ,CHINA DAILY

SITUATION3

DEFICIENCIES IN
COMMUNITY FACILITIES

CHANGE OF
ACTIVITY TYPE

PANDEMIC

SITUATION4

SHIFT
OF
INTEREST

SITUATION5

COMMON IMPACT

ASSURANCE
OF
ACTIVITY

SENIOR'S HEALTH

ASSURANCE
OF
RESIDENCE

COMMUNITY-BASED
RETIREMENT

COMPETITION

NURSING HOMES
RETIREMENT

PREFERENCE

REQUEST FOR HELP

REFUSE

CHANGES IN FAMILY
STRUCTURE

INHERENT
PERCEPTIONS

SITUATION2

SITUATION1

To sum up, community aging home aging is a common choice for most families and its feasibility exists. So far, we can effectively guarantee the living needs of the elderly group in community aging, but the key to improve the community aging environment and enhance the quality of aging is focused on **HOW TO IMPROVE THE ENVIRONMENT OF THE COMMUNITY PUBLIC SPACE**.

FIGURE 14.The Importance of Community Aging

21

Based on the previous conclusions, it is easy to see the importance of community aging and the key factors to improve the environment. In order to reflect these importance and get these key factors improved, I believe that **ARCHITECTS**,arel think architects are still the main audience, because their participation can essentially suggest solutions and better raise the public's awareness of the elderly in terms of performance, also **COMMUNITY RELATED MANAGERS**, **REAL ESTATE DEVELOPERS** and **GOVERNMENT RELATED DEPARTMENTS** are potential audiences.

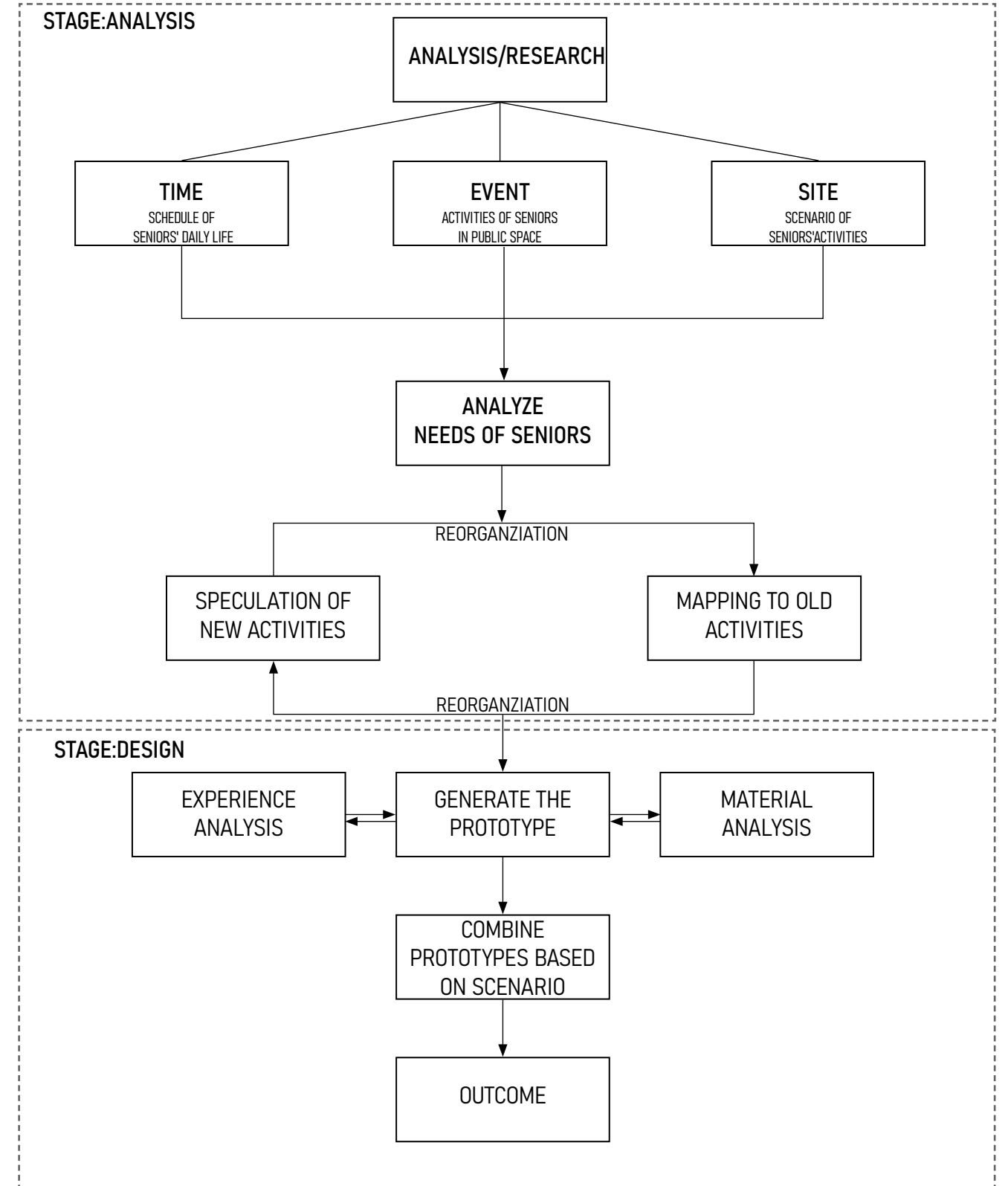# WHAT CAN WE DO TO IMPROVE THE QUALITY OF OUTDOOR ACTIVITIES FOR THE SENIORS

STAGE:ANALYSIS

ANALYSIS/RESEARCH

TIME
SCHEDULE OF
SENIORS' DAILY LIFE

EVENT
ACTIVITIES OF SENIORS
IN PUBLIC SPACE

SITE
SCENARIO OF
SENIORS'ACTIVITIES

ANALYZE
NEEDS OF SENIORS

REORGANZIATION

SPECULATION OF
NEW ACTIVITIES

MAPPING TO OLD
ACTIVITIES

REORGANZIATION

STAGE:DESIGN

EXPERIENCE
ANALYSIS

GENERATE THE
PROTOTYPE

MATERIAL
ANALYSIS

COMBINE
PROTOTYPES BASED
ON SCENARIO

OUTCOME
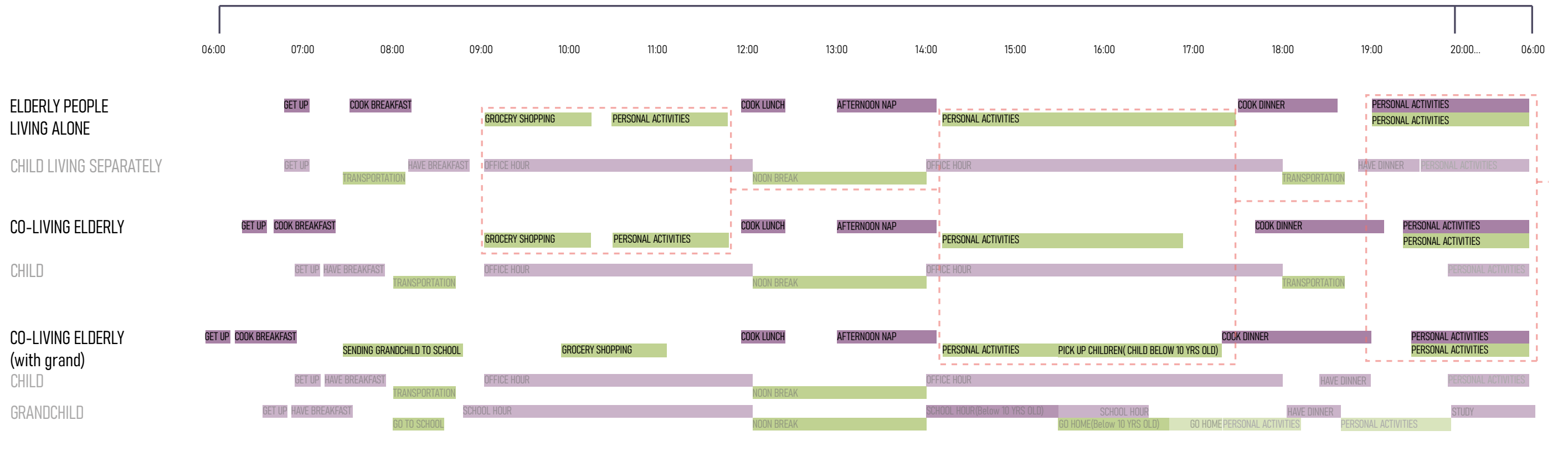
FIGURE 15.Method of "Senior Rejuvenation"

1. WHAT IS THE **NEEDS** OF SENIORS' OUTDOOR ACTIVITIES?

2. WHAT KIND OF ACTIVITIES WOULD BE MORE **APPEALING** TO THE SENIORS?

3. HOW TO ESTABLISH THE **INTERACTION** BETWEEN SENIORS?

4. WHICH TYPES OF **MODE** CAN BE USED?

5. WHAT KIND OF ELEMENT CAN BE **INTEGRATED** IN THE DESIGN?

WHAT SHOULD WE FOCUS ON IN THIS PROCESS

TIMELINE OF A ELDERLY (WEEKDAY)

BASED ON INFORMATION FROM DOCUMENTARY: AGING PROBLEM IN CHINA

06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00... 06:00

ELDERLY PEOPLE LIVING ALONE
GET UP · COOK BREAKFAST · GROCERY SHOPPING · PERSONAL ACTIVITIES · COOK LUNCH · AFTERNOON NAP · PERSONAL ACTIVITIES · COOK DINNER · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CHILD LIVING SEPARATELY
GET UP · TRANSPORTATION · HAVE BREAKFAST · OFFICE HOUR · NOON BREAK · OFFICE HOUR · TRANSPORTATION · HAVE DINNER · PERSONAL ACTIVITIES

CO-LIVING ELDERLY
GET UP · COOK BREAKFAST · GROCERY SHOPPING · PERSONAL ACTIVITIES · COOK LUNCH · AFTERNOON NAP · PERSONAL ACTIVITIES · COOK DINNER · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CHILD
GET UP · HAVE BREAKFAST · TRANSPORTATION · OFFICE HOUR · NOON BREAK · OFFICE HOUR · TRANSPORTATION · PERSONAL ACTIVITIES

CO-LIVING ELDERLY (with grand)
GET UP · COOK BREAKFAST · SENDING GRANDCHILD TO SCHOOL · GROCERY SHOPPING · COOK LUNCH · AFTERNOON NAP · PERSONAL ACTIVITIES · PICK UP CHILDREN(CHILD BELOW 10 YRS OLD) · COOK DINNER · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CHILD
GET UP · HAVE BREAKFAST · TRANSPORTATION · OFFICE HOUR · NOON BREAK · OFFICE HOUR · HAVE DINNER · PERSONAL ACTIVITIES

GRANDCHILD
GET UP · HAVE BREAKFAST · GO TO SCHOOL · SCHOOL HOUR · NOON BREAK · SCHOOL HOUR(Below 10 YRS OLD) · SCHOOL HOUR · GO HOME(Below 10 YRS OLD) · GO HOME · PERSONAL ACTIVITIES · HAVE DINNER · PERSONAL ACTIVITIES · STUDY

TIMELINE OF A ELDERLY (WEEKEND)

06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00... 06:00

ELDERLY PEOPLE LIVING ALONE
GET UP · COOK BREAKFAST · MORNING EXERCISE · GROCERY SHOPPING · PERSONAL ACTIVITIES · COOK LUNCH · AFTERNOON NAP · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · COOK DINNER · FAMILY DINNER · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CHILD LIVING SEPARATELY
GET UP · HAVE BREAKFAST · PERSONAL ACTIVITIES · VISIST PARENTS · FAMILY LUNCH · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · FAMILY DINNER · LEAVE · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CO-LIVING ELDERLY
GET UP · MORNING EXERCISE · COOK BREAKFAST · GROCERY SHOPPING · PERSONAL ACTIVITIES · COOK LUNCH · AFTERNOON NAP · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · COOK DINNER · FAMILY DINNER · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CHILD
GET UP · HAVE BREAKFAST · GROCERY SHOPPING · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · FAMILY DINNER · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CO-LIVING ELDERLY (with grand)
GET UP · MORNING EXERCISE · COOK BREAKFAST · GROCERY SHOPPING · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · COOK LUNCH · AFTERNOON NAP · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · COOK DINNER · FAMILY DINNER · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES

CHILD
GET UP · HAVE BREAKFAST · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · FAMILY LUNCH · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · FAMILY DINNER · PERSONAL ACTIVITIES

GRANDCHILD
GET UP · HAVE BREAKFAST · STUDY · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · FAMILY LUNCH · PERSONAL ACTIVITIES · PERSONAL ACTIVITIES · FAMILY DINNER · PERSONAL ACTIVITIES · STUDY
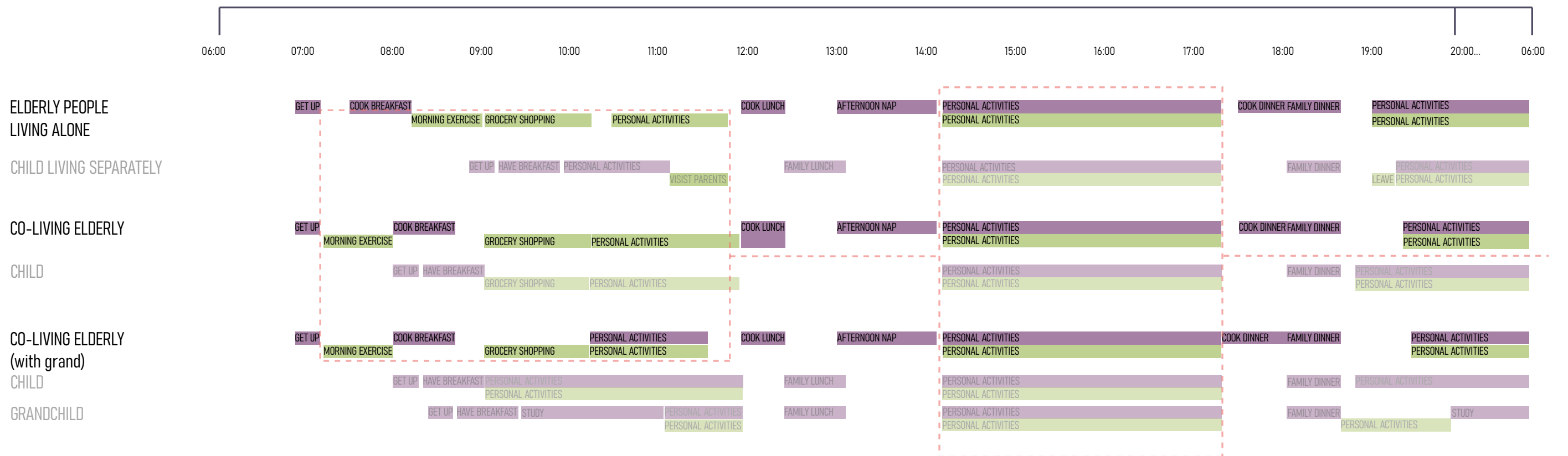
FIGURE 16.Seniors' daily life analysis

INDOOR ACTIVITIES · OUTDOOR ACTIVITIES

FIGURE 17. Aging in China: Aging Home, 01:20

P.   5 Seniors
O.   iPad
E.   Outdoor of Community
M.   Sunny, Standing
S.   Group Communication

FIGURE 18. Aging in China: Aging Home, 01:48

P.   3 Seniors
O.   Cardboard
E.   Exterior Wall of a House
M.   Sunny, No Chairs & Desk
S.   Playing Cardboard and Chatting

FIGURE 19. Aging in China: The Age of Silver Hair, 04:05

P.   8 Seniors
O.   Instruments
E.   Exterior Corridor of the Building
M.   Cloudy, Dark, Immersion
S.   Playing Instruments and Singing

FIGURE 20. Aging in China: Cultural Retirement, 07:17

P.   5 Seniors
O.   Instruments
E.   Public Space of Community
M.   Sunny, Sitting Around, Immersion
S.   Playing Instruments and Singing

FIGURE 21. Aging in China: Aging Home, 08:05

P.   Single Senior
O.   Flower Terrace
E.   Community Garden
M.   Sunny, Lonely
S.   Sitting on the Flower Terrace Alone

FIGURE 22. Aging in China: Aging Home, 01:35

P.   Single Senior
O.   Flowers and Clothes
E.   Balcony
M.   Floating, Lonely
S.   Watering the Flowers

FIGURE 23. Aging in China: Aging Home, 01:25

P.   4 Seniors 1 Child
O.   Bench , Garden
E.   Exterior Wall of a House
M.   Cloudy, Relaxing
S.   Chatting around their Grandchild

FIGURE 24. Aging in China: Aging Home, 16:48

P.   6 Seniors
O.   Taichi Exercise
E.   Terrace Between the Buildings
M.   Cloudy, Dynamic
S.   Playing Cardboard and Chatting
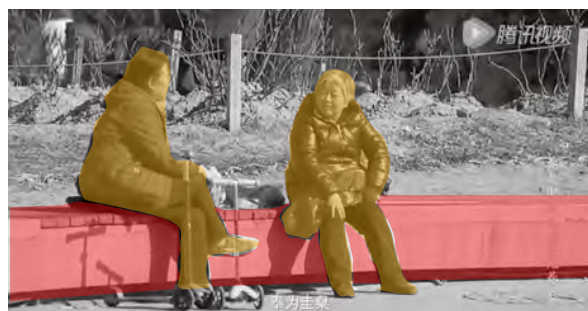
FIGURE 25. Aging in China: Cultural Retirement, 16:43

P.   2 Seniors
O.   Bench of Public Area
E.   Public Space of Community
M.   Sunny, Relaxing, Waiting Grandchild
S.   Chatting

FIGURE 26. Aging in China: Aging Home, 01:52

P.   8 Seniors
O.   Group Exercise, Wheelchair
E.   Public Space of Community
M.   Sunny, Shady Location
S.   Recovery Exericse

FIGURE 27. Aging in China: Aging Home, 21:54

P.   Single Senior
O.   Exercise Facility
E.   Exercise Area of Community
M.   Lonely, Exercise
S.   Using Exercise Facility
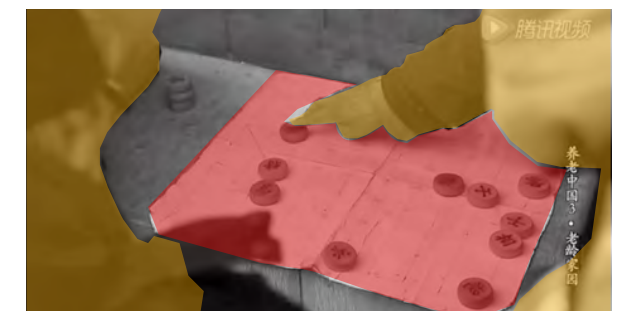
FIGURE 28. Aging in China: Aging Home, 02:05

P.   2 Seniors
O.   Chinese Chess
E.   On stairs
M.   Crowded, Solid
S.   Playing Chinese Chess

FIGURE 29. Aging in China: Aging Home, 21:54

Situation: lack of interactivity, restricted by the weather factors

Original Activity Time:

Upgraded Activity Time:

FIGURE 30. Aging in China: Aging Home, 01:35

Situation: restricted communication methods
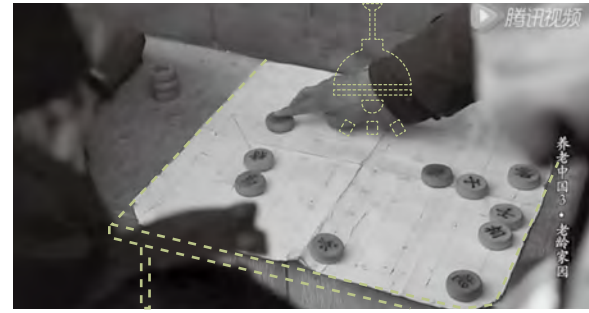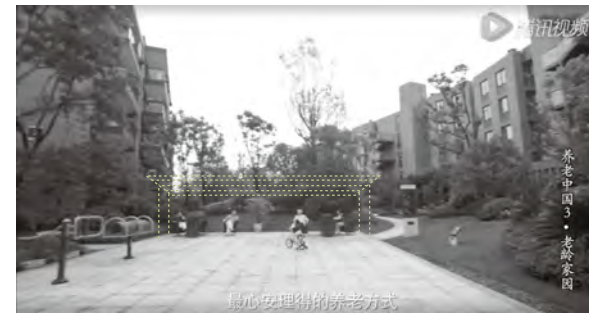
Original Activity Time:

Upgraded Activity Time:

FIGURE 31. Aging in China: Aging Home, 01:48

Situation: lack of comfort due to lack of facilities

Original Activity Time:

Upgraded Activity Time:

FIGURE 31. Aging in China: Cultural Retirement, 07:17

Situation: restricted by weather, inadequate support, bad acoustic environment

Original Activity Time:

Upgraded Activity Time:

FIGURE 33. Aging in China: Aging Home, 08:05

Situation: lack of comfort, potential for increased group communication

Original Activity Time:

Upgraded Activity Time:

FIGURE 34. Aging in China: Aging Home, 02:05

Situation: uncomfortable environment, lack of sunlight

Original Activity Time:

Upgraded Activity Time:

FIGURE 35. Aging in China: Aging Home, 01:20

Situation: lack of comfort due to lack of facilities

Original Activity Time:

Upgraded Activity Time:

FIGURE 36. Aging in China: Aging Home, 01:52

Situation: poor activity and single project

Original Activity Time:

Upgraded Activity Time:

FIGURE 37. Aging in China: Cultural Retirement, 16:43

Situation: lack of comfort and safety concerns for children

Original Activity Time:

Upgraded Activity Time:

FIGURE 38. Aging in China: Aging Home, 01:25

Situation: highly restricted by weather

Original Activity Time:

Upgraded Activity Time:

FIGURE 39. Aging in China: The Age of Silver Hair, 04:05

Situation: limited space, bad light, bad acoustic environment

Original Activity Time:

Upgraded Activity Time:

FIGURE 40. Aging in China: Aging Home, 16:48

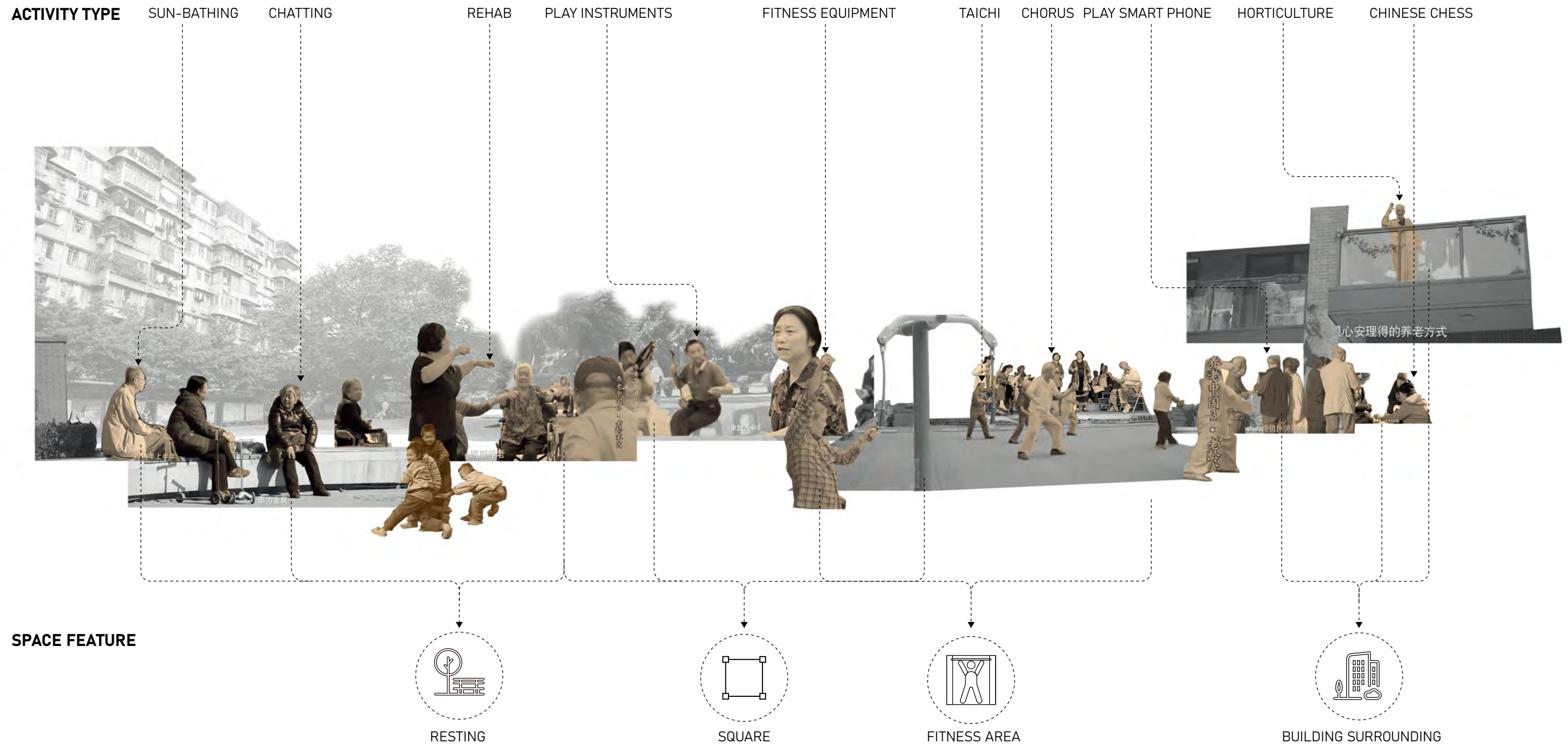Situation: lack of light, limited by weather factors

Original Activity Time:

Upgraded Activity Time:

COMMUNITY SUPPORT

SEESAW

SLIDES

HORTICULTURE

OPEN AIR CINEMA

SUN BATHING

CHATTING

OTHER FACILITIES

PLAY SMART PHONE

KNITTING

CALLIGRAPHY

CULTURAL FEATURES

CHORUS

EXERCISE

SOCIAL

CHILDREN

TAICHI

CARDS

SQUARE DANCING

MAHJONG

CHESS

FITNESS EQUIPMENT

PINGPONG

BADMINTON
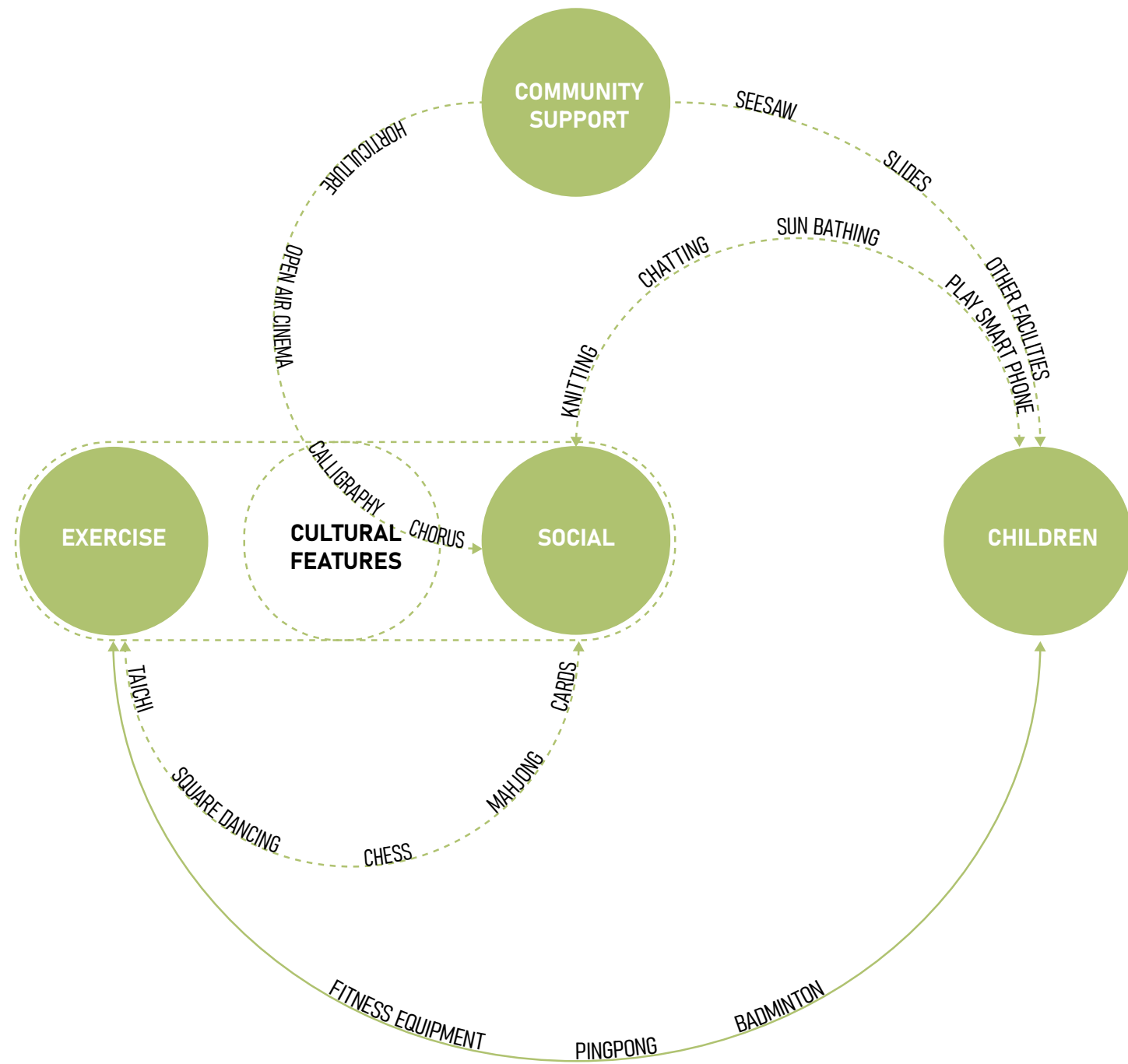
From the existing analysis of activities, it is possible to divide the community activity areas of the older population into **THREE CATEGORIES**, and they revolve around **SOCIALIZATION**, **EXERCISE**, and **CARE FOR GRANDCHILDREN**. It is easy to see that these outdoor activities do not only belong to one category, but there is also a lot of potential for correlation among them. Therefore, based on this trend and potential, and the shortcomings of the previous scenarios, architects should be able to combine and improve **SPACES** and **SCENARIOS** that can accommodate different activities at the same time, so that the scenarios can not only stimulate the motivation of activities, but also expand the circle of interpersonal communication and realize the health benefits of outdoor activities for the elderly.

FIGURE 41. Aging in China: Aging Home, 16:48

ACTIVITY TYPE

SUN-BATHING   CHATTING   REHAB   PLAY INSTRUMENTS   FITNESS EQUIPMENT   TAICHI   CHORUS PLAY SMART PHONE   HORTICULTURE   CHINESE CHESS

SPACE FEATURE

RESTING   SQUARE   FITNESS AREA   BUILDING SURROUNDING

According to the previous analysis, we can see that the activities of the elderly groups have certain **SIMILARITIES**, they can show a certain degree of **OVERLAP** in the types of activities and venues, these overlaps can lead to design potential, these potentials can be good to **COORDINATE** the needs of various types of activities and stimulate new types of activities.

FIGURE 42. Aging in China: Aging Home, 16:48
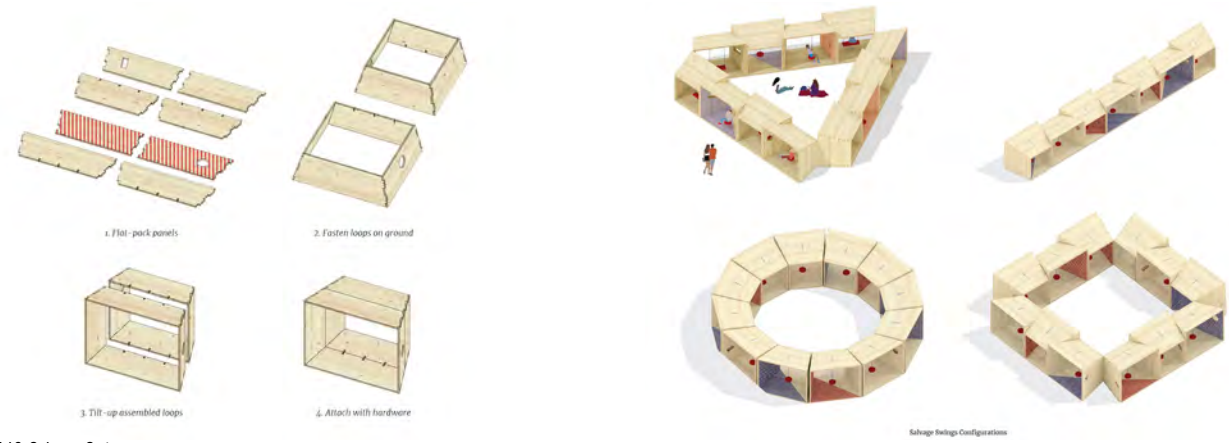
FIGURE 43. Salvage Swings

MODE		MATERIAL	
MODULAR		WOOD	METAL

PROS		CONS	
RECYCLABLE	DEMOUNTABLE	STATIONARY	
EXTENDABLE	MULTIPLE COMBINATION	AFFECTED BY COLD WEATHER	

POTENTIAL SCENARIO

FITNESS PLACES	TEA ROOM	PUBLIC THEATER
COMMUNITY MARKET		CHESS ROOM

"The pavilion consists of 12 repetitive modules that frame individual swings and views of the park and surrounding city. The swings are organized collectively in a triangular form to create a new communal space within the park. The open framework of the pavilion can host a variety of activities including swinging, picnicking, concerts, and hide-and-seek games. The swing seats come from the window cut-outs between modules and activate a large-scale peg game for kids. Integrated LED lighting in the swing windows transforms the pavilion at night into a beacon from the banks of the East River in Manhattan and Queens."

"The project proposes how a temporary pavilion design can utilize construction waste and also avoid ending up in the landfill after its initial period of use. The swings are designed to be easily assembled and disassembled with a small group of volunteers. Prefabricated finger joint connections and manageable piece sizes allows for the project to be flat-packed, shipped, and site assembled in a matter of days. The modular design allows the pavilion to live beyond the summer activities in new places and configurations."

CASE STUDY II
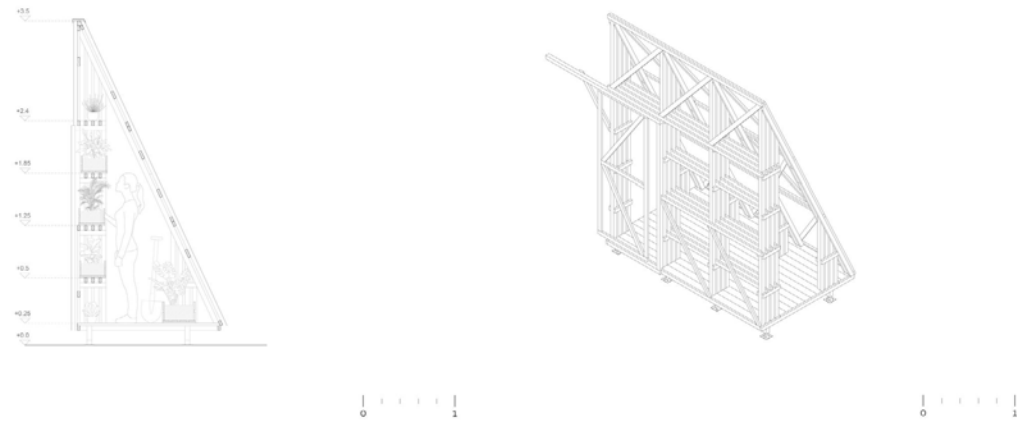
FIGURE 44. Instalación micro invernaderos / Iván Bravo Arquitectos

MODE		MATERIAL		
MODULAR		WOOD	METAL	ACRYLIC

PROS		CONS	
DEMOUNTABLE	MOVEABLE	POOR TEMPERATURE REGULATION	
EXTENDABLE	GOOD VISIBILITY	LIMITED AVAILABLE SPACE	

POTENTIAL SCENARIO		
HORTICULTURE	SUNBATHING	COMMUNITY GREEN HOUSE

"The micro-greenhouses are an academic exercise of practical experimentation, which seeks to exploit to the maximum the capacities of a constructive system from minimal elements. Through repetition and density, it is possible to form larger structures capable of filling the uncertain space that remains between the furniture and the building. This scale allows the implantation of the rural landscape to the city in an effective and precise manner, triggering the active crossing of these worlds that have been urged to separate."

"The structures are composed entirely of 1x2" and 2x2" elements, through a simple and intuitive fastening system. The two versions explore ways of inhabiting a space that is designed from the modulation of plants, over the human scale. One of them, the triangular shape, is made to be walked horizontally flanked by a side of plants, while the other is walked vertically between the plants that are arranged all around the central void."

DEMOUNTABLE MODULAR ECONOMICAL GREEN

The advantage of **DEMOUNTABLE, MODULAR** buildings is that they can be assembled directly at the target site from **PREFABRICATED** components. The advantage of this type of building or structure is that it is fast to build, less constrained by weather conditions, saves labor and improves the quality of construction. For each community, they can adapt their needs to their own scale, while the components are **REUSABLE** and can be disassembled repeatedly without generating excessive construction waste.

"DOING MORE WITH LESS."
– Buckminster Fuller
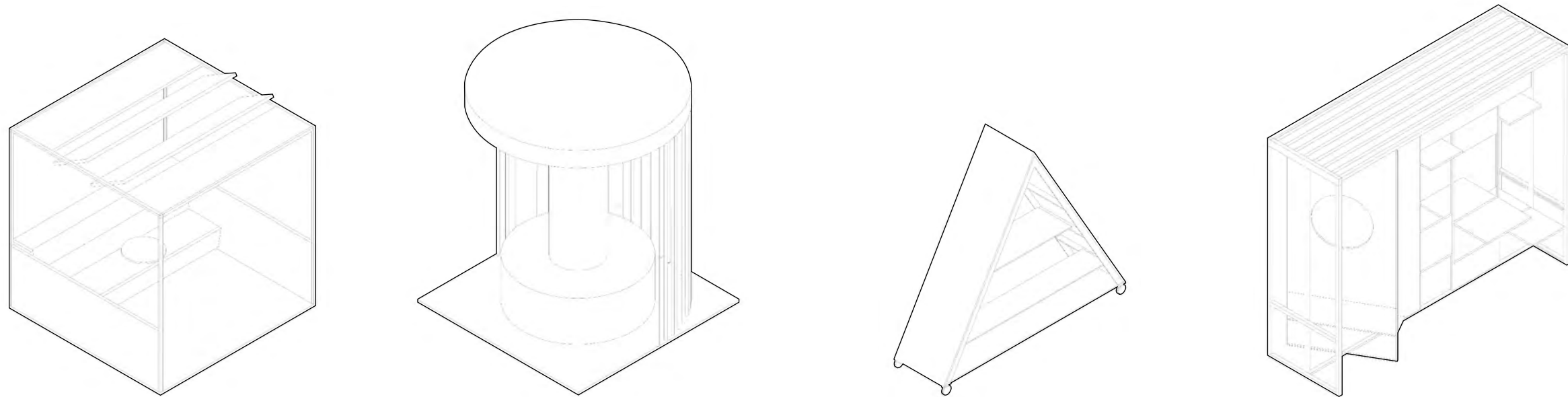
FIGURE 45. Aging in China: Aging Home, 16:48

MODE	MODULAR	MODULAR	MODULAR		MODULAR	
MATERIAL	WOOD	WOOD	WOOD		WOOD	FABRIC
	METAL	METAL	METAL		METAL	
PROS	COMFORTABLE SEATING	GOOD VISIBILITY	MULTIPLE COMBINATION DEMOUNTABLE	MOVEABLE EXTENDABLE	MULTIPLE COMBINATION DEMOUNTABLE	MOVEABLE EXTENDABLE
CONS	STATIONARY POOR TEMPERATURE REGULATION	STATIONARY LIMITED AVAILABLE SPACE	?		?	
POTENTIAL SCENARIO	SUN ROOM TEA ROOM	SEAT AREA	CHESS ROOM TEA ROOM COMMUNITY MARKET		FITNESS PLACES TEA ROOM CHESS ROOM PUBLIC THEATER HORTICULTURE	
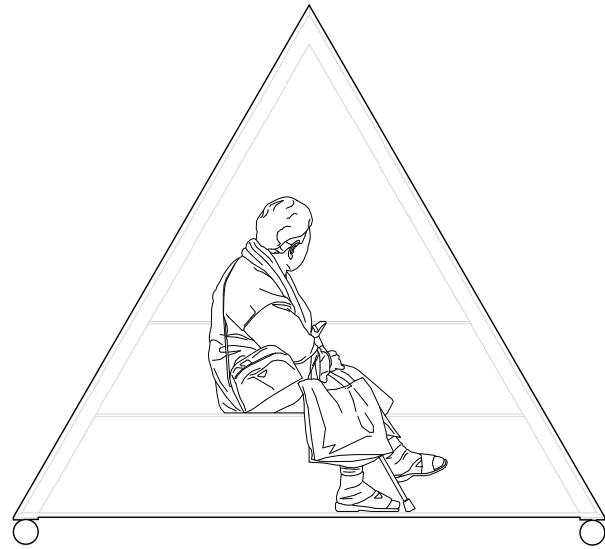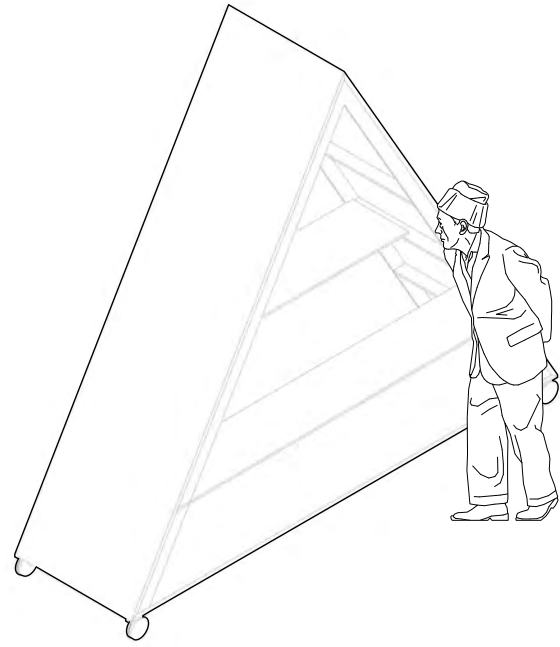
This is a movable wooden structure activity station, it can function as a seat or table by installing moldings of different heights, and through different combinations he can meet the activity needs of but people living multiple people. This design is concerned with the relationship between the body and space. This transcendent and extremely narrow hut may lead to a temporary escape from the collective unconscious state.
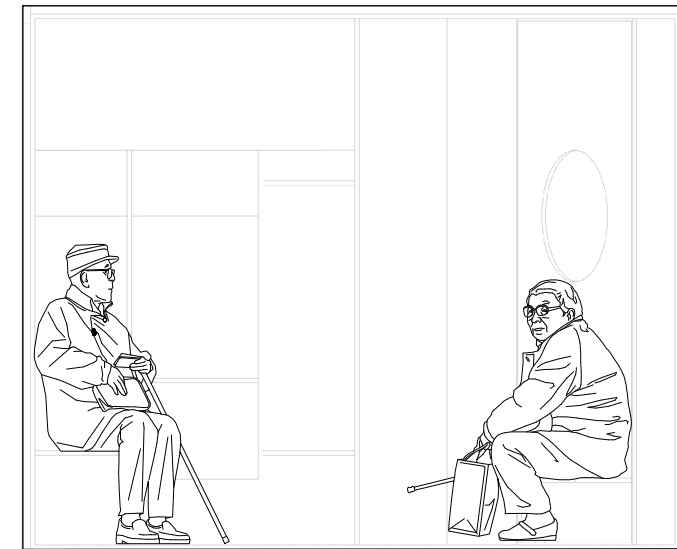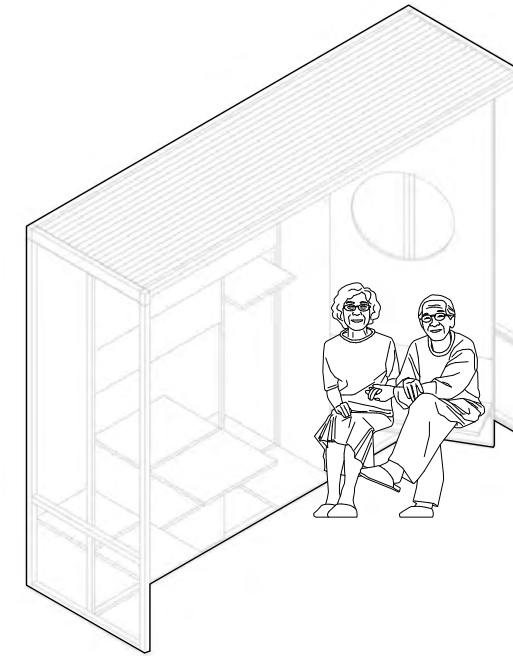
This is a timber gazebo, this gazebo consists of a metal frame. The program is organized to provide a variety of qualities and environments for different event needs. The project combines the advantages of an open plan (flexibility, informality, interaction) with the advantages of closed and semi-closed spaces (definition, structure and concentration). The installation is also equipped with a rolling module as well as three rotating modules that enable the entire installation to be combined according to different needs.

FIGURE 46. PROTO 3 INTRO

FIGURE 47. PROTO 4 INTRO

SINGLE PERSON ACTIVITY
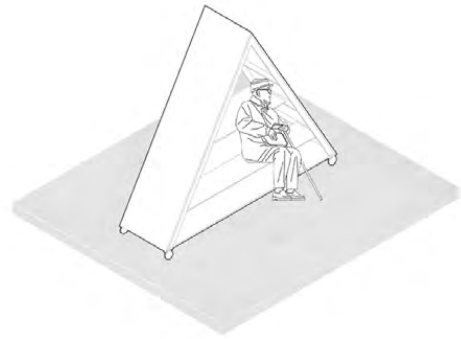
MULTI-PERSON ACTIVITY I
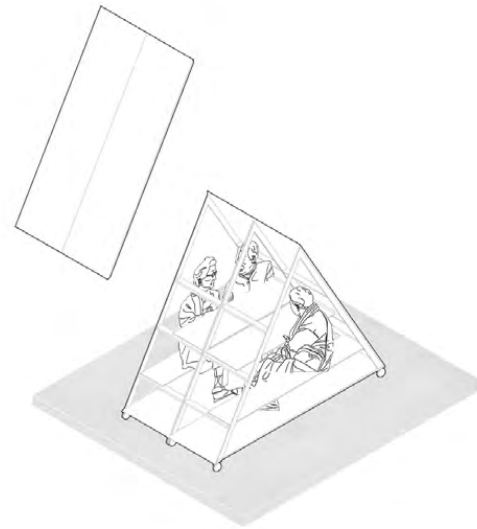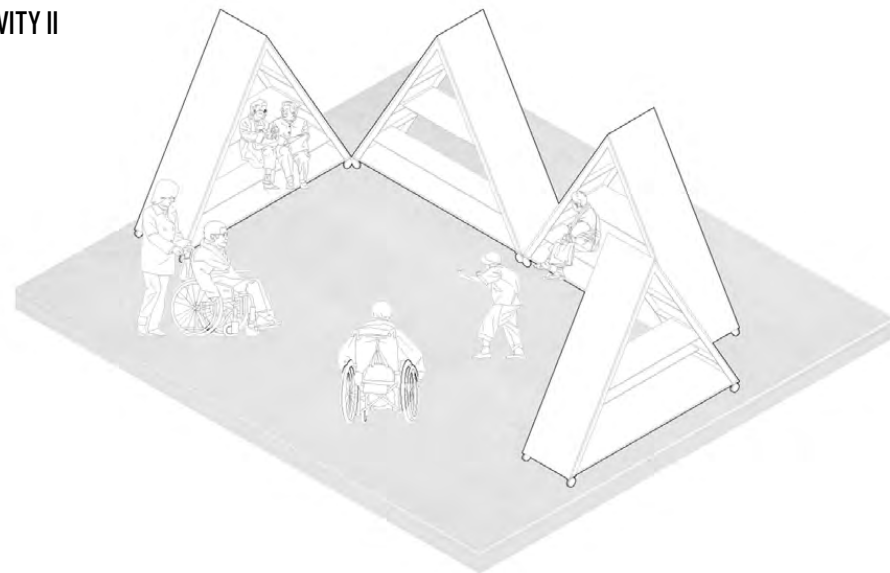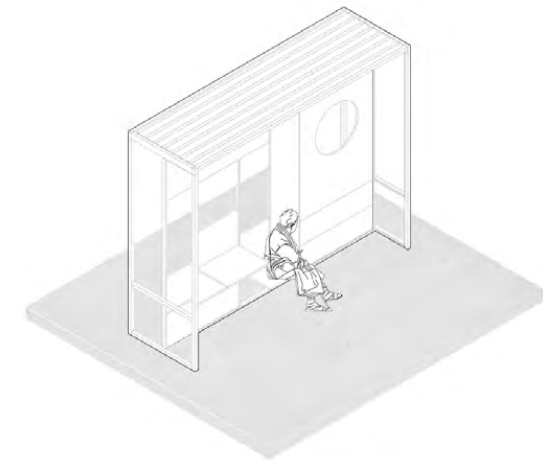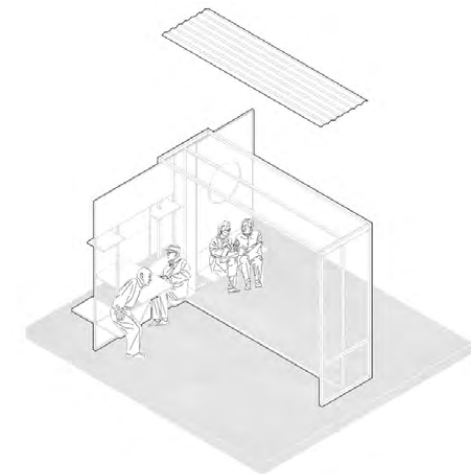
MULTI-PERSON ACTIVITY II

FIGURE 48. PROTO3 SIMULATION

SINGLE PERSON ACTIVITY

MULTI-PERSON ACTIVITY I

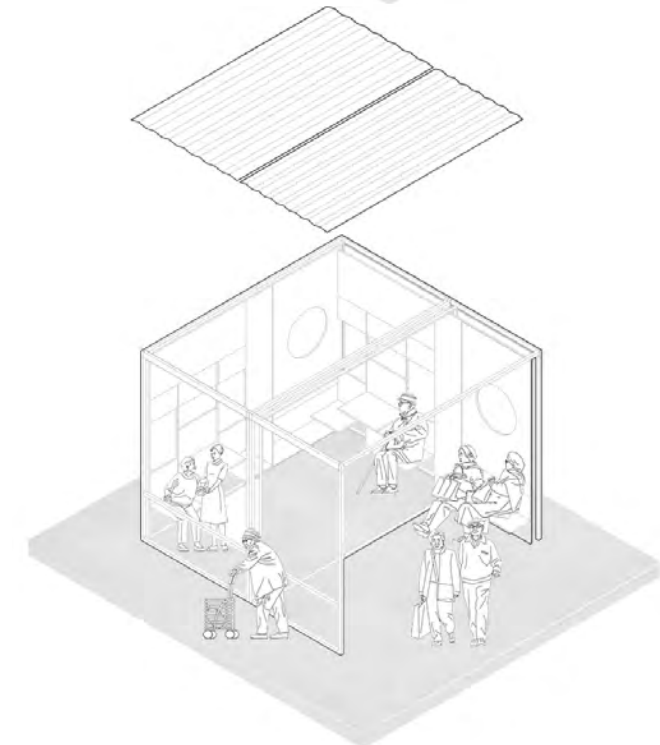MULTI-PERSON ACTIVITY II
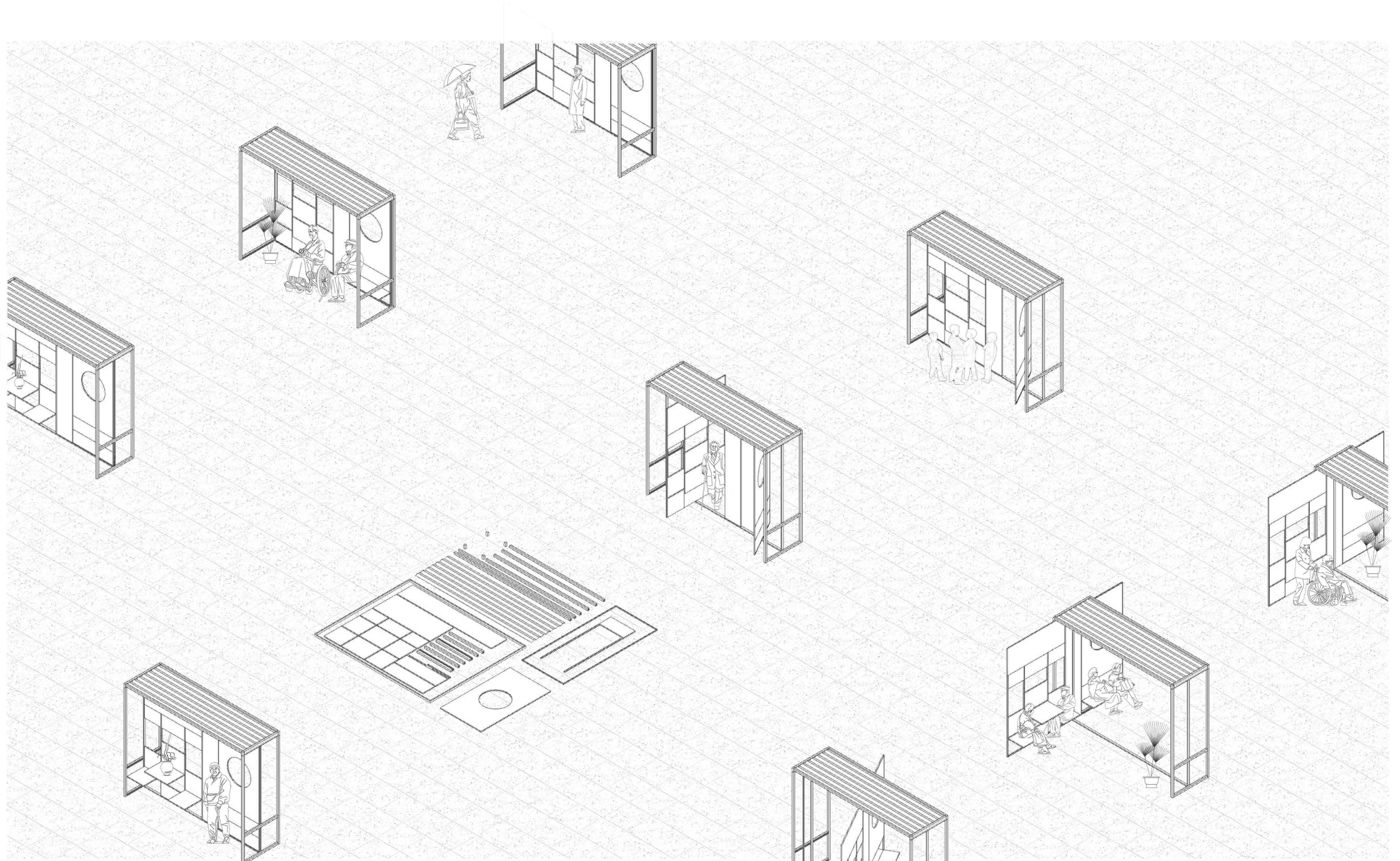

FIGURE 49. PROTO 4 SIMULATION

FIGURE 50. PROTO 4 DISPLAY

FIGURE 51. Aging in China: Aging Home, 16:48