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# 01 BACKGROUND RESEARCH

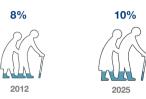
According to researches, China is aging faster than any other country in history. Meanwhile, China has been a country with a close-family-tiestradition for over thousand years. However, as the family structures are getting smaller, people's lifestyle is also changing over time. Nowadays the word 'a distance of a bowl of soup' is quite popular in between all generations. It represents an ideal way of family living, that with a distance when a bowl of hot soup will not cool down over way. Then how to create an urban space for providing aging-care design and keep private boundaries, social connections and family-care at the same time becomes a question and a challenge of this project.

## **AGEING POPULATION**

-- an issue over the world

#### **GLOBAL AGEING POPULATION BY 2050**

21%

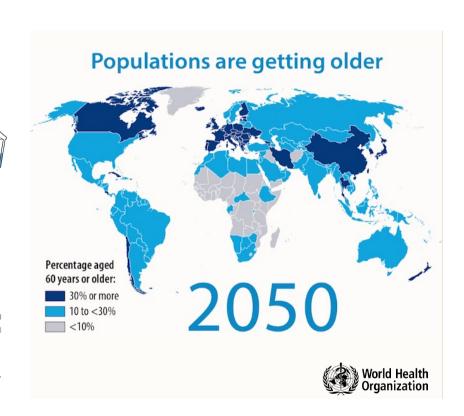




- 1 in 10 people globally were over 60 years old in 1950.
- This is expected to increase to more than 1 in 5 by 2050.

The global aging trend will affect nearly all sectors of the society, including labour, financial market as well as family structures and intergenerational ties.

The issue may also demand for public services in terms of medical, health, housing, transport...



--Local (provincial) Degree of Ageing Population in China (2018)



#### 2010-2018 AGING POPULATION TRENDS (60 or older) 2010-2018年中国60周岁及以上人口



The population of the elderly (60 or older) in China is about 128 million, or 1 in every 10 people.

It is estimated that China could have up to 400 million people over 60 years of age by the year 2050.

--How is the family structure changing in China?

The urbanization process as well as Internet and technological revolution is having a new impact on the family model.

The development of cities and application of technologies such as WeChat, video, and smart wear have made family relationships break through space constraints and brought family members a new way of connections.

This not only enhances family cohesion, but also may expose families to great vulnerability.





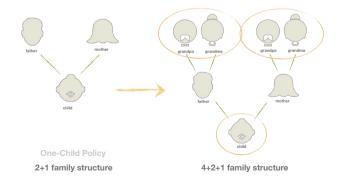


--How is the family structure changing in China?





- Family culture is the core of Chinese traditional education.
- · One-child policy had an after effect of creating a larger elderly population.
- It also made social family structure get smaller, which becomes hard to provide for elderly.
- The policy also made more 4+2+1 family structure, resulting to burden of providing for elderly people.



-- How the ageing people living in China?



-- How is the ideal way of living in CHINA?

# THE DISTANCE OF A BOWL OF SOUP



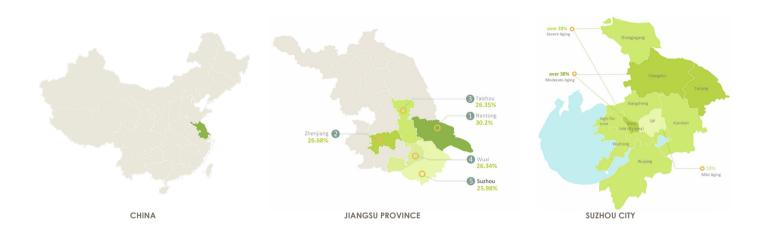
"The distance of a bowl of soup" is a family affinity theory, adopted in 1970s for advocating family pension in Japanese aging society.

It means that when children send a bowl of soup to the elderly from their house, the soup will not cool down over way -- to describe the suitable distance which keeps the relative independence between parents and children without losing affinity.

It is not only describing physical distance, but also a vivid metaphor of psychological intimate distance

# AGEING POPULATION IN SUZHOU

-- Local (districts) Degree of Ageing Population in Suzhou (2018)



By 2018, Suzhou has over 108 million Aging population, which accounts for 26.02% of all. This means that 1 in 4 people are over 60 years old.

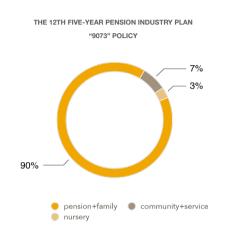
In general, the the trend of aging is accelerating, the number of elderly people is increasing, and the aging difference is becoming larger.

The degree of aging in Changshu, Taicang, and Gusu Districts has exceeded 30%, entering the stage of severe aging. Except for the Suzhou Industrial Park, the degree of aging in other urban areas has exceeded 20%, entering a moderately aging society.

# AGEING POPULATION IN SUZHOU

-- How the ageing people living in Suzhou?





#### EXISTING TYPES OF ELDERLY ESTATE IN SUZHOU

1. EXISTING RESIDENTIAL COMMUNITIES regenerations on site for elderly convenience

2. NEW CO-LIVING COMMUNITIES

mixed with young & elderly / periphery area

3. RETIREMENT COMMUNITIES WITH CONTINUOUS CARE

high demands for construction & management

4. INDEPENDENT APARTMENT FOR THE ELDERLY 5. PENSION HEALTH RESORT CENTER

6. NURSING HOME

professional aging housing in urban area

leisure functioned areas with pension culture

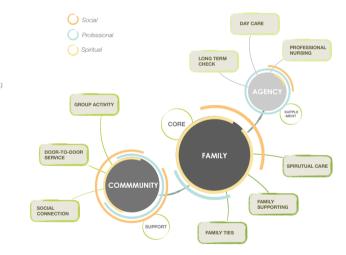
expensive & the number cannot meet large needs

# **AGEING POPULATION IN SUZHOU**

-- Problems & Future needs

#### EXISTING PROBLEMS OF AGING INDUSTRY

- · LOCATION: Suburban area; Poor access to transportation; Poor sense of belonging
- · SEPARATION: Elderly centralized; Poor connections to society; Lack of vitality
- · CONSTRUCTION: High management cost; Low service efficiency
- · LIMITED USER GROUPS: Middle & High-end customers.



# SURVEY ANALYSIS

#### SURVEY INFORMATION

#### Online-Survey of the Sustainable Aging Community:

A.	Male	B. Female	C. other

2. Age:

A. under 18

1 Condor

B. 18-59

C. 60 and above

3. What is your family status?

A. Married and has a spouse

B. Married without a spouse

C. Has child

D. Has no child

4. How many Children do you have?

A. 0

B. 1

C. 2

D. more than 2

5. How is your income (monthly)?

A. 0-2000

B. 2000-5000 C. 5000-10000

D. >1000

6. How is your healthy condition?

 A. Very healthy. I can live completely on my own and have the ability to help with other family members.

B. Generally healthy. I can live on my own but not able to help with others.

C. I have one or more chronic disease/body inconvenience, that I need some help when doing some activities

 I have one or more chronic disease/body inconvenience, that I need professional, long-term service to support

7. How do you live now?

A. Live alone

B. Live with my partner

C. Live with my parents/children

D. Live with my parents and grandparents/children and grandchildren

E. Live with my friends

F. Live with my other relatives

G. Live with others

8. What would you prefer to do (/ What did you do )with the problem of your parents' pension?

A Home-hased care

B. Professional Institution Pension (e.g. Nursing home)

C. Community security/support for aging population

9. What would you prefer to do (/ What did you do )with the problem of your pension?

A. Home-based care

B. Professional Institution Pension (e.g. Nursing home)

C. Community security/support for aging population

10. Would you like to live with your children's family? / Would you like to live with your parents after you getting married?

A. Yes

B. No

C. It depends.

-Why?

(a) Private space is necessary even for a large family

(b) My work is inconvenient for me to live with my family

(c) The lifestyles, habits and time schedules of different generations are guite different

(d) Family members need help sometimes, I hope to take care of them

(e) Family members should live together, so that we can have happiness.

(f)Disharmony between family members

(g) Others

11. What is your ideal way of living?

A. Live with my parents/children together

B. Live with my parents/children in the same building

C. Live with my parents/children in a same community

D. Live with my parents/children in different communities but the same district

E. Live with my parents/children in the same city

F. It is fine to live with my family members in different cities

12. What is your preferable way of paying for pension housing?

A. Rent

B. Buv

13. What is your affordable price?(Monthly rent/ Price per square meter)

\_\_\_\_

14. In terms of the aging community you choose, what do you think are the most important elements as below? (choose 3 of them)

A. Living Environment
 B. Traffic and Location

C. Reasonable price

Professional medical care services

E. Surrounding infrastructure

F. Typology

G. Public activity space

15. In terms of the aging community you choose, what do you think are the most necessary functions setting around? (choose 3 of them)

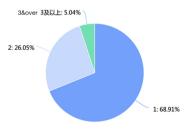
A. Food market/supermarket

B. Green areas/parks

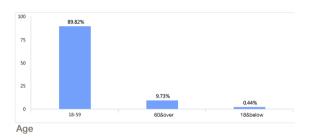
C. Open squares for activities

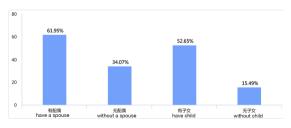
# **GENERAL PARTICIPANT INFO**





How many children do you have?

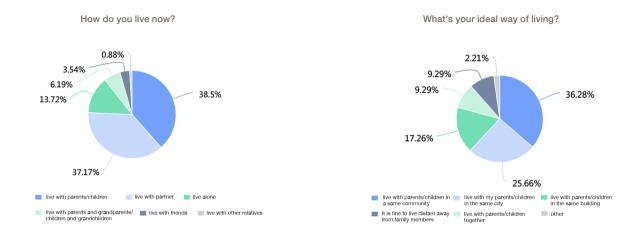




Family condition

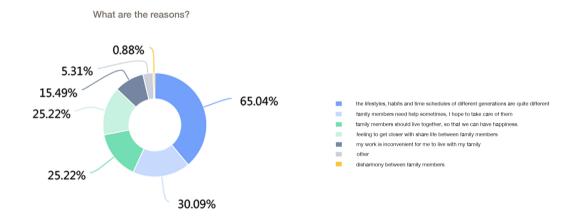
There were 226 partivipants joinning the survey, they come from different age groups and have different family conditions.

# LIVING MODES



Nearly 90% of the participants want to live at least in the same city with their family members, and over 60% in them want to live in the same community or even closer.

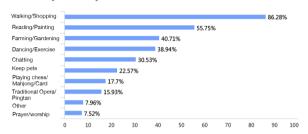
# **REASONS BEHIND LIVING MODES**



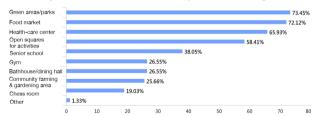
The reasons behind show conflicts between the balance on sharing family life and owning private spaces.

# **DEMANDING ACTIVITIES & FUNCTIONDS**

#### What do you usually do for outdoor entertainment?



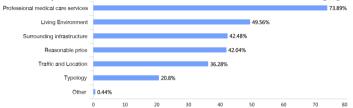
#### What do you think are the most necessary functions setting around?



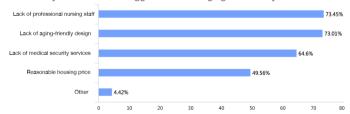
The green space, local food market, health-care center and open squares are the top 4 necessary places for an aging community to participants.

# **CONCERNED ISSUES**





#### What do you think are the biggest issues of aging community in China?



Lack of professional health-care services is the main issue of choosing an aging community for participants.

my work is inconvenient for me to live with my family

disharmony between family members

other

18-59: 203 60&over: 22 Would you like to live with your parents after you getting married? Would you like to live with your children's family? not sure 不好说: 13.64% yes 是: 20.69% not sure 不好说: 40.89% 悬: 45.45% no 不是: 40.91% no 不是: 38.42% WHY? WHY? 4.55% 0.99% 18.18% 5.91% 16.75% 59.09% 66.01% 24.14% 31.82% 25.62% 28.57% 40.91% the lifestyles, habits and time schedules of different generations are quite different the lifestyles, habits and time schedules of different generations are guite different family members need help sometimes, I hope to take care of them family members need help sometimes, I hope to take care of them family members should live together, so that we can have happiness. feeling to get closer with share life between family members feeling to get closer with share life between family members

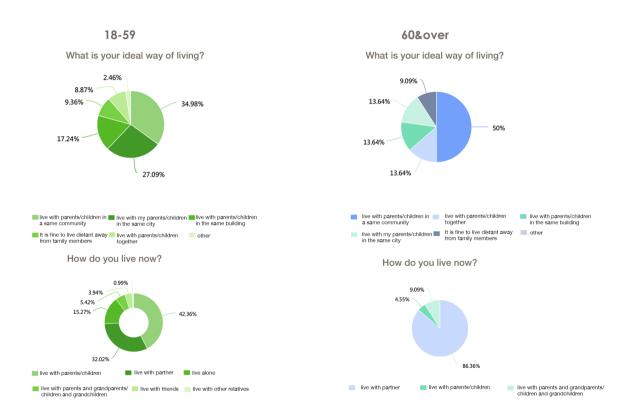
A comparison between people who are under pension period now and the ones will go for future were made on basis of the general statistics.

family members should live together, so that we can have happiness.

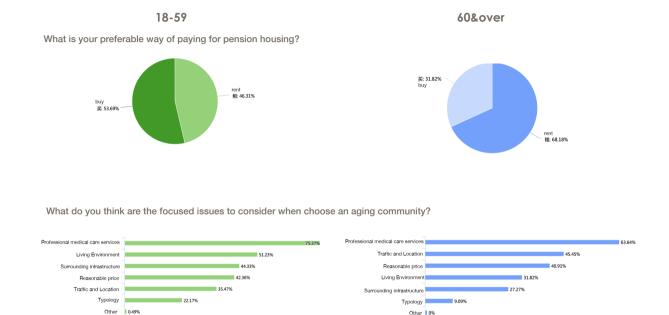
my work is inconvenient for me to live with my family



Although most of people chose to have family pension, people are more tend to choose community supportinf-mode for themselves.



People over 60 are more willing to live close with their family members, but now they are not doing this.



People over 60 are more willing to rent their houses. Also, they take traffic and location as one of top 2 focused issues, it means that they are more afraid of being seperated from the society and want to avoid from feeling lonley.

# **SUMMARY**

PHYSICAL

HOUSING TYPES

good location

senior house

friendly street space

family house

connections of blocks

multi-generation living

accessible public transport

youth apartments

COMMUNITY

PROFESSIONAL SERVICES

community activities

nursing center

diverse public space

health care center

proper social functions

community service

close family-ties

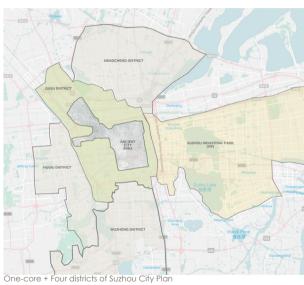
volunteer assistant service

# SITE ANALYSIS



# LOCATION



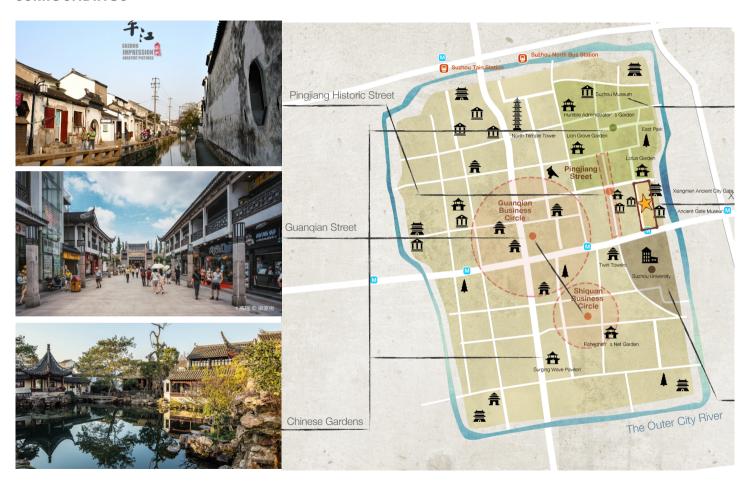


# HISTORICAL CITY STRUCTURE

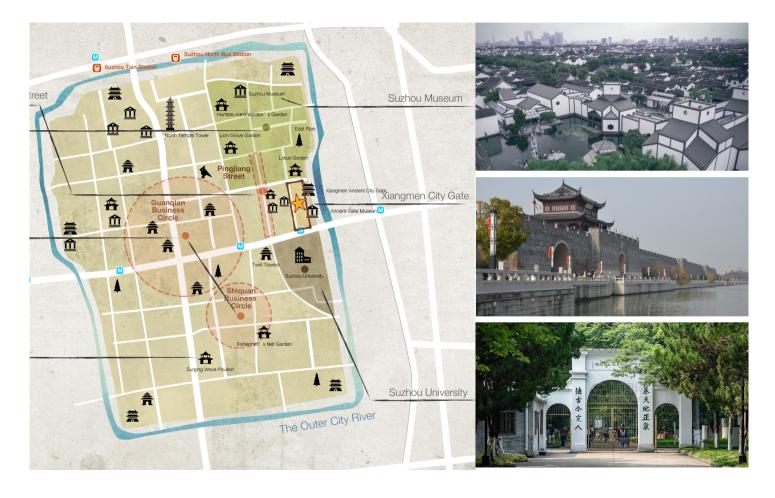


10 Suzhou current city map (blue-green-road-existing cruise terminals)

# **SURROUNDINGS**



# **SURROUNDINGS**



# LOCAL TRADITIONAL CHARACTERS

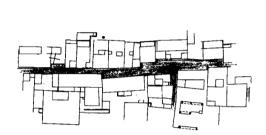


Streets Goes Parallel with Canal

White Walls and Black Tile

Classical Garden Art

# LOCAL TRADITIONAL CHARACTERS



Suzhou old city residential street space



- · Compact & Changeable street space; Narrow alley
- · Small courtyards for daily activities & micro-climate
- · Under the eave space for rain protection



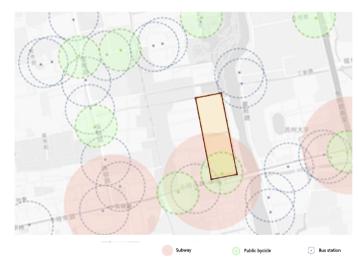






# CONNECTION





The site has good connections to important nodes as well as accessible public transport facilities. A metro station is in the south edge of the site and a bus station is in 10 minute walk way distance.

# **MOBILITY**



The basic street lines of the site is corresponding to the traditional old town with the grid pattern. The south edge of the site is a major motorway with large vehicle and people flow.

# **GREEN-BLUE**







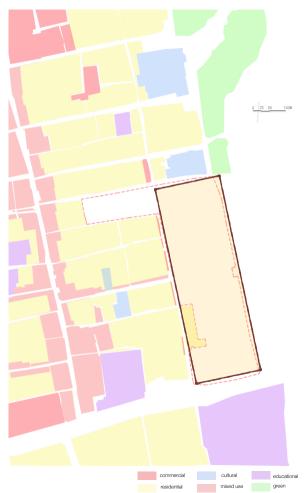
Pingjiang road & canal



city gate & the city river

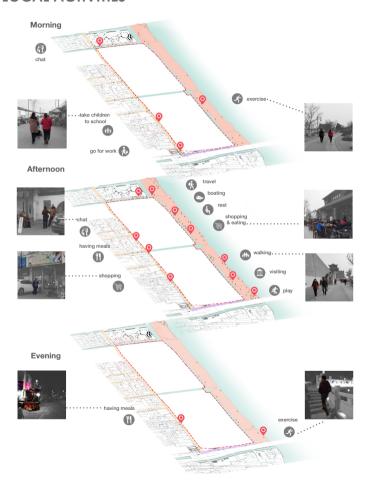


# **LAND USE**

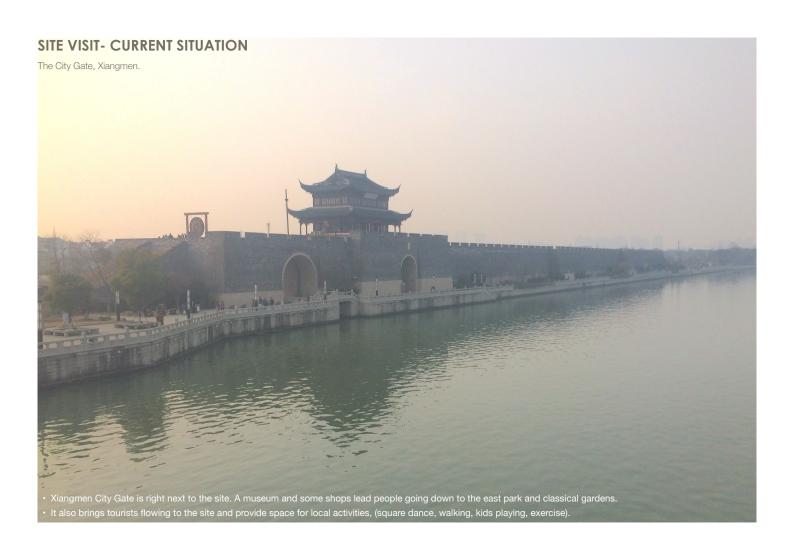




#### **LOCAL ACTIVITIES**



- Most of local people take activities in east part of the site for daily exercise in the morning and evening. The west street mainly used for local working/studying commuting in the morning.
- With the popular commercial street in west and the classical gardens in north, few of tourists choose to go across the empty site now, but it has the large potential to catch people flow in future.









- A problem of the main street is that, although the metro station is locating nearby, due to the large amount of tourists in the old city, there is no enough parking areas.
- Then the car parking occupying a lot of space from pedestrians. The business shops and local residents can hardly share a semi-public space for living as well.

#### SITE VISIT- CURRENT SITUATION

Local house

- It is really compact and high-dense inside the local housing areas. The long narrow alleys can be usually seen.
- Most of the houses are under protected but old and decaying at the same time.
- Some spaces can not get enough sunlight, which is wet and dark. So locals like to use small courtyards and windows for drying and ventilation.







#### SITE VISIT- CURRENT SITUATION

Local architecture





• The tall walls are used for preventing from fire, so also called • Small windows on the roof used for ventilation and firewalls.

catching more sunlight.



- Corridors with roof has multiple uses.
- 1. It can make convenience for rainy days. 2. It make connection between rooms and houses. 3. It provide public space for daily activities. 4. It creates aesthetic function of gardens and courtyards.

#### SITE VISIT- CURRENT SITUATION

Local alley

- The inner path shows mostly the lifestyle of locals. The doors of neighbors are facing to each other and often be opened in daytime.
- Most of the residents can be seen were elderly and children. Locals like to sit on a chair outside, doing their own things or chatting with others. Some of them would keep birds and having small vegetable plots.
- People likes to park e-bikes in the alley, which makes it become more narrow.













- Most of the locals have their own business on site (local food, handicraft, food bars...), especially elderly.
- The site is close to famous tourist attractions, so a number of tourists flowing pass by.
- Suzhou Pingtan is a traditional musical/oral performance art form popular in locals, paricularly in elderly. There is a pingtan museum and a pingtan show nearby. People like to go there.

#### **CONCLUSION-SWOT**

Xiangmen, Suzhou ancient city, China.











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- # good location
- safe, quiet & livable environment
- rich tourist resources
- \* rich cultural & historical elements
- good connections to city center

W

- old&decaying constructive environment
- chaotic street space
- working adults moving out
- lack of elderly-convenience facility

U

- urgent needs of aging population
- protected area of ancient city
- close to Suzhou Industrial Park, university&popular commercial streets

Ш

- large flow of tourists
- lack of car parking area
- how to balance between developing &protecting

## O4 CASE STUDIES





Project: The Future Sølund

Location: Nørrebro, Copenhagen, Denmark

Size: 37,895 m2 Year: 2016

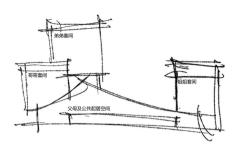
Awards: 1st Prize in architectural competition

Architecture & Landscape: C.F. Møller in collaboration

with Tredje Natur

The case focused on aging-friendly design, as well as considering multi-generation living in urbna areas. The public squares connect the buildings with different users, which is an inspiring point for a co-living community.





massing sketch



east-west section

Project: My Home

Location: Shuangfeng Village, Hunan Province, China.

Size: 560 m2 Year: 2016

Architecture: Xutan Wang

The case offerred a typical typology for multi-generation living, based on Chinese social contexts in rural areas. The way it dealing with private and public-sharing space is good to learn.

## 05 DESIGN PRINCIPLES

#### **DESIGN VISION&GOAL**

#### VISION:

As facing such an urgent problem of increasing aging population in China, Suhzou, especially in old city area, the vision of the Xiangmen project is to focus on catching the true needs of local aging population and create a sustainable new aging community, aiming for achieving the following goals at the same time:

#### **GOALS:**



 Keep a BALANCE between preserving local characters in ancient city and rebuilding effective and dynamic street space.



2. Focusing on solving aging living problems, providing AGING-FRIENDLY DESIGN for the community and make it plays a better role of helping elderly merging into the urban functions and urban life.



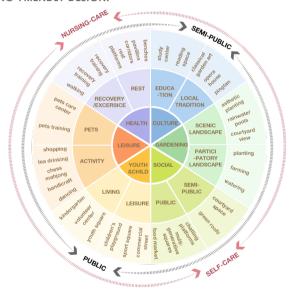
 Considering possibilities of CO-LIVING between MULTI-GENERATIONS by creating spatial flexibility at the same time.

#### **DESIGN STRATEGY**

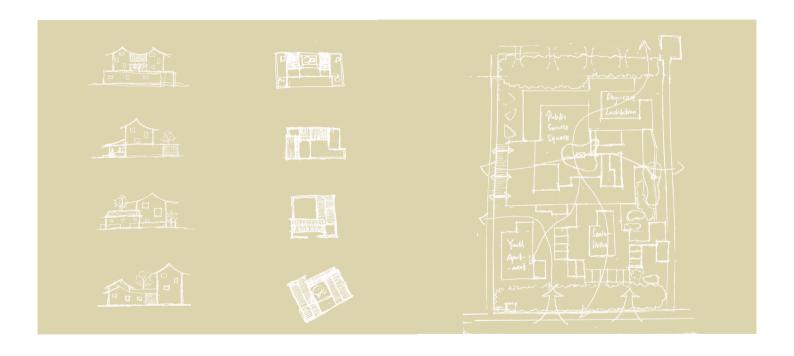
#### **FUNCTIONS:**



#### **AGING-FRIENDLY DESIGN:**

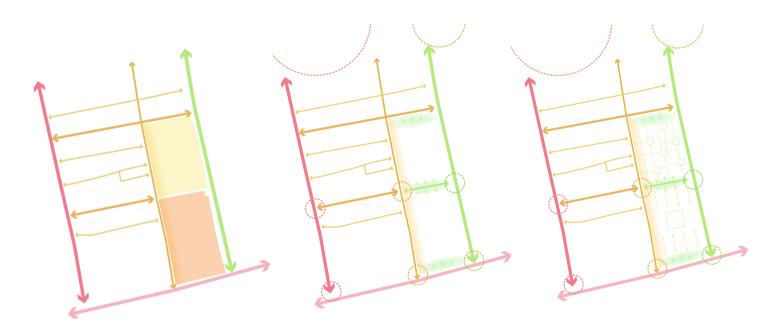


#### **MASISING SKETCHES**



# 06 SUSTAINABLE AGEING COMMUNITY

#### **CONCEPT DIAGRAM**



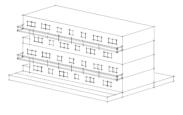
- \* As is facing a main road and the metro station, the south part \* In order to go along with the Cang street (yellow&north-south), \* For housing community, it is considered to keep grid pattern would better for setting public functional buildings, and the the area facing to it is considered to keep commercial functions with the ancient city, and changeable street space connected north part with better inner privacy would be planned as housing for connecting key nodes. community.

  - fences & provide public space.
- with pocket open space.
- Set-back greenings for both preventing noise & offer soft A central square is planned for south part, in order to connect multi-use blocks & serving public functions.

#### **TYPOLOGY ELEMENTS**



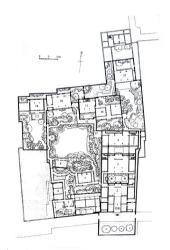




traditional courtyard house

contemporary suites

apartments







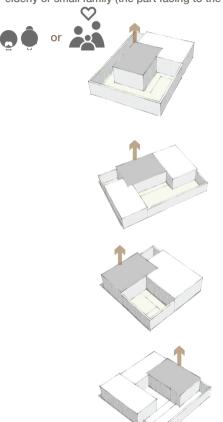
garden arts

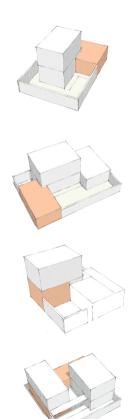
changeable street space

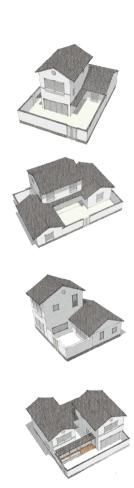
old city pattern

#### **DIVERSE TYPOLOGY-USER GROUPS**

• elderly or small family (the part facing to the street can be used for local bussiness)



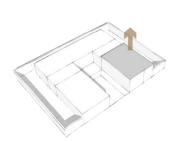




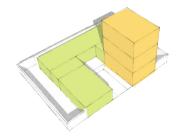
• elderly + family







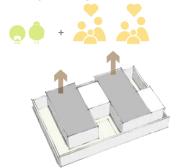






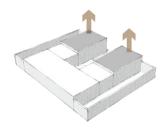


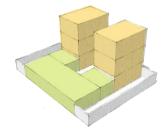
• elderly + multi-generation families













• elderly + multi-generation groups





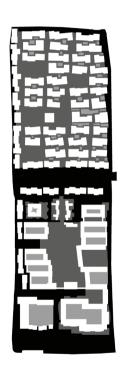
#### **DIAGRAM ANALYSIS**

BUILDING TYPE: PRIVATE-PUBLIC: PUBLIC FUNCTIONS:

public

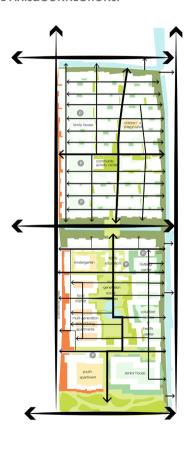
private



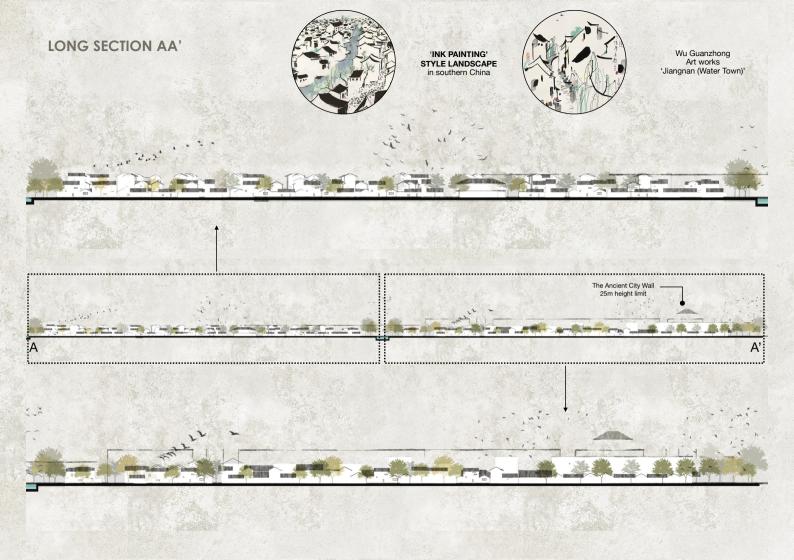




#### LANDSCAPE AXIS&CONNECTIONS:

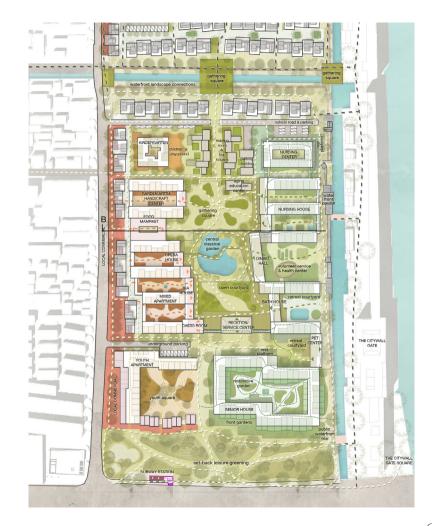






#### **DETAIL PLAN - FUNCTION&FLOW - SOUTH**





#### **DETAIL PLAN - FUNCTION&FLOW - NORTH**







#### SECTION BB'

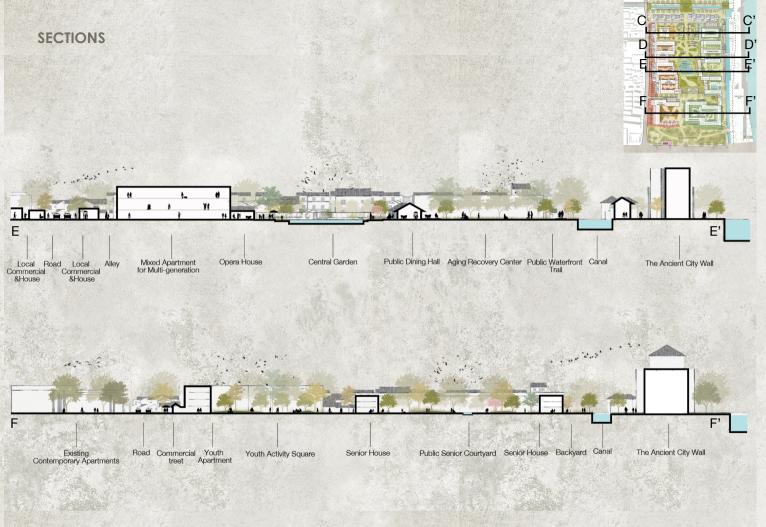


#### **PERSPECTIVE**



### **SECTIONS** C C' Children's Reading Rooms Playground &Tea House Green Connection to Gathering Square Public Parking Building Nursing Center Retreatment Platform Canal The Ancient City Wall Local Commercial Kindergarten Road &House





#### **PUBLIC SQUARE DESIGN**



ensure a wheelchair passes



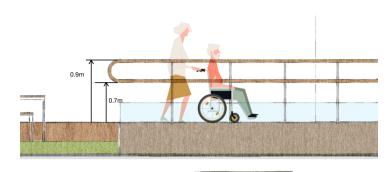
ensure a wheelchair and a person walk sideways pass



ensure a wheelchair and a



ensure two wheelchairs pass



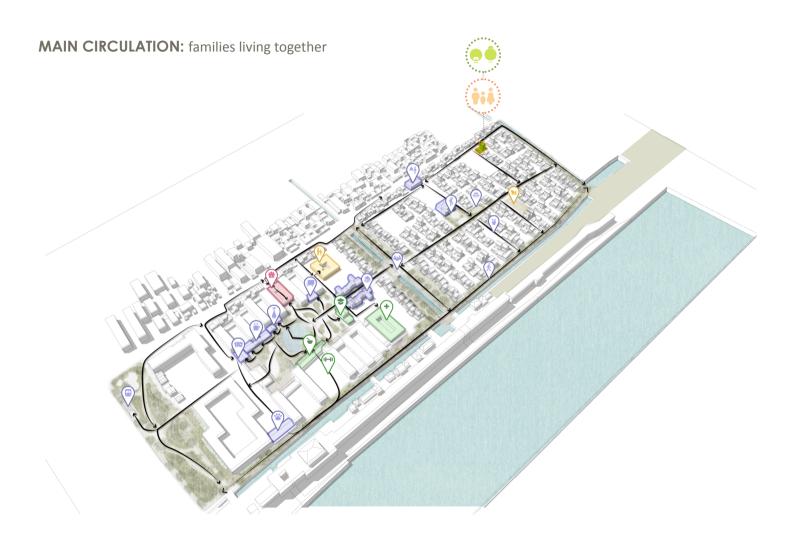
path width >= 2m

double-level handrails



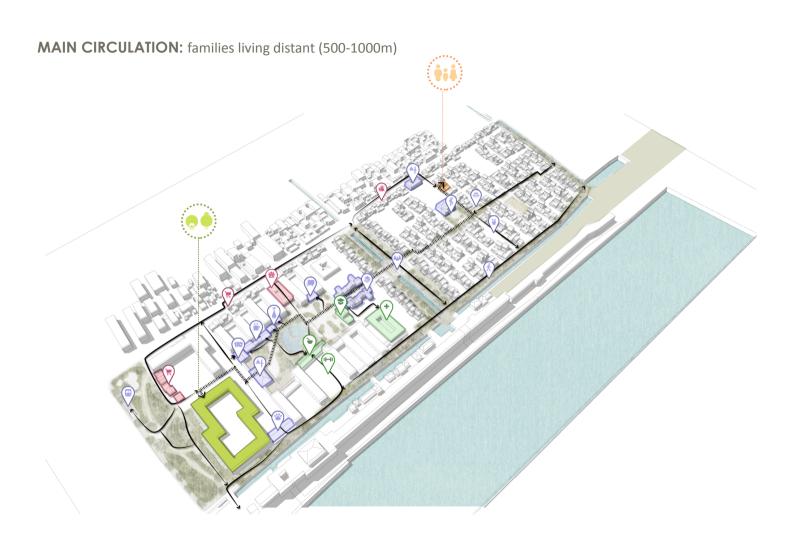
#### **PERSPECTIVE**





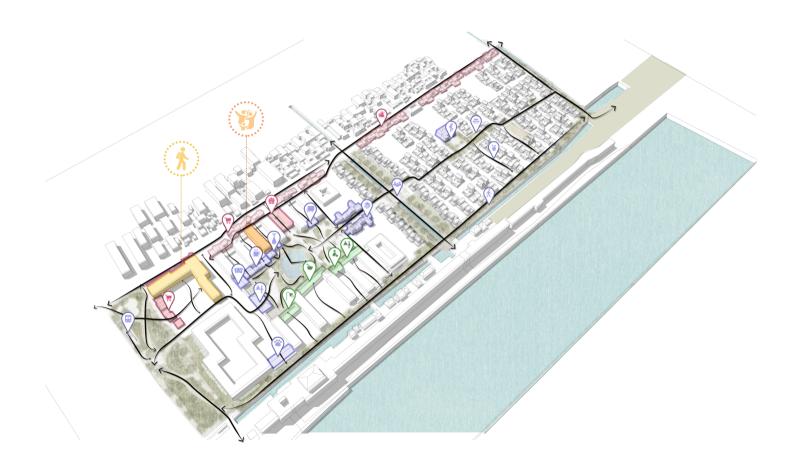
### MAIN CIRCULATION: families living close (in between 500m)





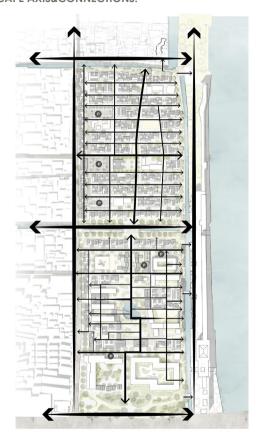


### MAIN CIRCULATION: multi-generation groups



## 07 REFLECTION Integration&Mix-up

### LANDSCAPE AXIS&CONNECTIONS:





## **ZONE B**

# **ZONE C**

### **SUMMARY**







As the aging society continues to develop over the world, demands of aging population such as housing and other sectors will keep increasing. Then how to create livable space for aging groups should be paid more attention during urban development.

Meanwhile, because of different cultural contexts, people may have diverse needs in both physical and mental aspects over the rapid changes. In order to get the balance between tradition and contemporary life, the great challenge will be taken for keeping pace with the transition.

With the strong tradition of family tie in China, I hope people can always live with such a sustainable life in urban areas, which allows multi-generations to live together, so that they can take care of each other in between families or neighbors without feeling lonely, and that a bowl of warm soup can always be recieved over way, with a warm loving heart.

## 08 APPENDIX Online survey results

### SURVFY

### Online-Survey of the Sustainable Aging Community:

- 1 Gender
- A. Male B. Female C. other
- 2. Age:
- A. under 18
- B 18-59
- C. 60 and above
- 3. What is your family status?
- A. Married and has a spouse
- B. Married without a spouse
- C. Has child
- D. Has no child
- 4. How many Children do you have?
- A. 0
- B. 1
- C. 2
- D. more than 2
- 5. How is your income (monthly)?
- A. 0-2000
- B. 2000-5000
- C. 5000-10000
- D. >10000
- 6. How is your healthy condition?
- A. Very healthy. I can live completely on my own and have the ability to help with other family
- B. Generally healthy. I can live on my own but not able to help with others.
- C. I have one or more chronic disease/body inconvenience, that I need some help when doing
- D. I have one or more chronic disease/body inconvenience, that I need professional, long-term service to support
- 7. How do you live now?
- A. Live alone
- B. Live with my partner
- C. Live with my parents/children
- D. Live with my parents and grandparents/children and grandchildren
- E. Live with my friends
- F. Live with my other relatives
- G. Live with others
- 8. What would you prefer to do (/ What did you do )with the problem of your parents' pension?
- A. Home-based care
- B. Professional Institution Pension (e.g. Nursing home)
- C. Community security/support for aging population

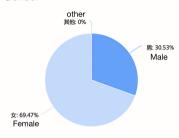
- 9. What would you prefer to do (/ What did you do )with the problem of your pension?
- A. Home-based care
- B. Professional Institution Pension (e.g. Nursing home)
- C. Community security/support for aging population
- 10. Would you like to live with your children's family? / Would you like to live with your parents after you getting married?
- A. Yes
- B. No
- C. It depends.
- -Whv?
- (a) Private space is necessary even for a large family
- (b) My work is inconvenient for me to live with my family
- (c) The lifestyles, habits and time schedules of different generations are quite different
- (d) Family members need help sometimes, I hope to take care of them
- (e) Family members should live together, so that we can have happiness.
- (f)Disharmony between family members
- (g) Others
- 11. What is your ideal way of living?
- A. Live with my parents/children together
- B. Live with my parents/children in the same building
- C. Live with my parents/children in a same community
- D. Live with my parents/children in different communities but the same district
- E. Live with my parents/children in the same city
- F. It is fine to live with my family members in different cities
- 12. What is your preferable way of paying for pension housing?
- A. Rent
- B. Buv
- 13. What is your affordable price?(Monthly rent/ Price per square meter)

14. In terms of the aging community you choose, what do you think are the most important

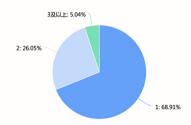
- elements as below? (choose 3 of them)
- A. Living Environment B. Traffic and Location
- C. Reasonable price
- D. Professional medical care services
- E. Surrounding infrastructure
- F. Typology
- G. Public activity space
- 15. In terms of the aging community you choose, what do you think are the most necessary functions setting around? (choose 3 of them)
- A. Food market/supermarket
- B. Green areas/parks
- C. Open squares for activities

### RESULTS: 226 participants in online survey

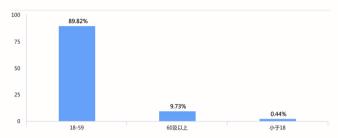
### 1. Gender



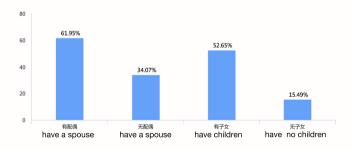
### 3. What is your family status?



### 2. How old are you?



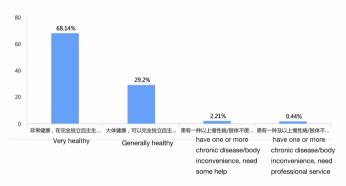
### 4. How many Children do you have?



### 5. How is your income (monthly)?



### 6. How is your healthy condition?

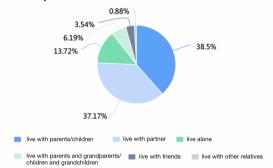


7. What would you prefer to do (/ What did you do )with your parents' 8. --- of your pension? pension?

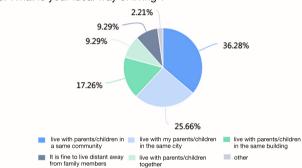




### 9. How do you live now?



10. What is your ideal way of living?

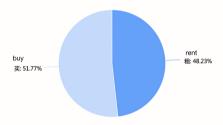


11. Would you like to live with your children's family? / Would you like to live with your parents after you getting married?

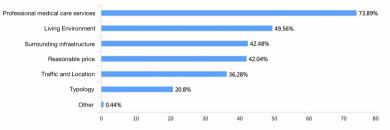
12. -Why?



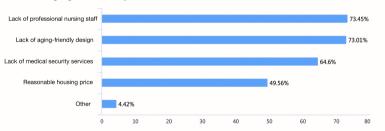
13. What is your preferable way of paying for pension housing?



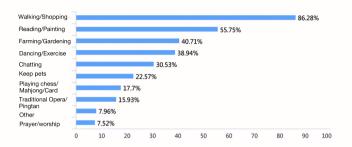
### 14. What do you think are the most important elements as below to choose an aging community? (choose 3 of them)



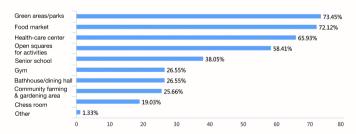
### 15. What do you think are the biggest weaknesses of aging community in China?



### 16. What do you usually do for outdoor entertainment?



### 17. In terms of the aging community you choose, what do you think are the most necessary functions setting around? (choose 3 of them)



Thanks for stopping by