

CARNEGIE MELLON UNIVERSITY

MASTER THESIS

Senior Community Center Proposal and Design

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*A thesis submitted in fulfilment of the requirements
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Declaration of Authorship

I, Yujie XU, declare that this thesis titled, 'Senior Community Center Proposal and Design' and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Signed:

Date:

“My passion and great enjoyment for architecture, and the reason the older I get the more I enjoy it, is because I believe we - architects - can effect the quality of life of the people.”

Richard Rogers

CARNEGIE MELLON UNIVERSITY

Abstract

Prof. Volker Hartkopf
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Master of Science

Senior Community Center Proposal and Design

by Yujie XU

The project of Senior Community Center started from Fall 2014. The goal of the project is to 1) analyze the feasibility and the potential benefit of a Senior Community Center near CMU Campus, 2) conduct case review of related design with specific focus on inter-generational relationship creation.

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Abbreviations

CMU	Carnegie Mellon University
OSHER	Academy of Lifelong Learning
SCU	Special Care Unit

Dedicated to my family, friends and my instructors. . .

Chapter 1

Case Study

1.1 General Design Considerations of Senior Population

There are several main categories of housing choices for the elderly: independent living communities, assisted living, Continuing Care Retirement Communities (CCRC), nursing homes, and alzheimer's care.

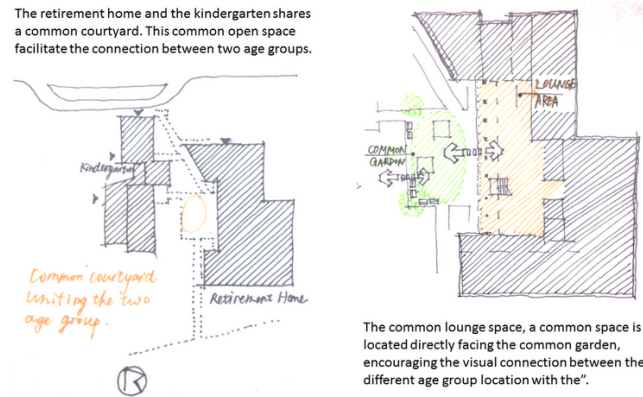
The senior community center under discussion in the current project aims at providing diverse choices for degree of assist, hence it is not easy to categorize it into one of the categories above. It also integrates with the university population, making the function even further from a traditional senior center setting. The case study in this section focus more on the aspect specific to the project, such as the affiliation to a university, and a combined facility of living and research.

1.2 Elderly and Children Combined Facility

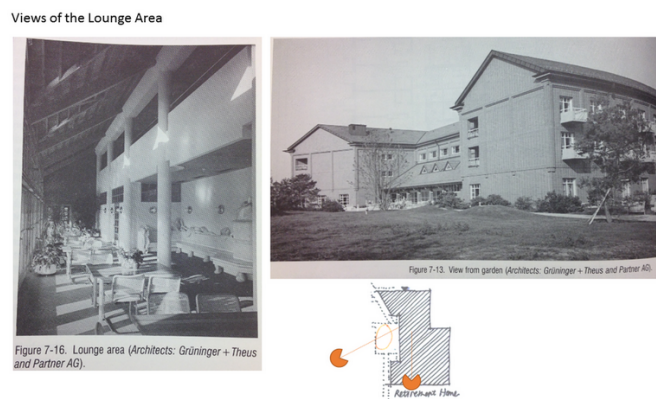
1.2.1 Altersheim Furttal, A Retirement Home in a Swiss Village

The retirement home is built near the city center with good public transportation. This connection provides the residents with a stronger connection to the society.

There is a kindergarten to the north of the facility. The connections between the two age groups are established with a common courtyard between the kindergarten and the retirement home. The interior space design strengthens this connection by arranging a two story "lounge space" adjacent to the common garden.



(A) Site Plan Layout of Altersheim Furtal and Kindergarten



(B) Views of the Lounge Area

FIGURE 1.1: Common Garden and Interior Design in Creating Connections between Different Age Groups

1.3 University Affiliated Senior Housing

1.4 Dementia Assisted Living

“Dementia is an umbrella term for a group of cognitive disorders typically characterized by memory impairment, as well as marked difficulty in the domains of language, motor activity, object recognition, and disturbance of executive function – the ability to plan, organize, and abstract.” [?] Dementia, or its most common form Alzheimer is highly prone and one could not neglect its existence: there are 5 million Alzheimer victims in the U.S. and every 1 out of 3 seniors die in dementia. Women are more vulnerable to dementia and 2/3 of the Alzheimer victims are women [1]. This section conduct some related case study on elderly caring facilities for people with Alzheimer Diseases.

The physical space acted as a “therapeutic resource” in improving the wellbeing and help reduce the seriousness of dementia [?]. Relocation of individual dementia victims to new

environments can increase the possibility of depression and mortality [?]. This implies the necessity for dementia dedicated space. The living unit for cognitively impaired people are commonly referred to as Special Care Unit (SCU). The common features of SCUs include “smaller size units, fewer resident rooms and more designated private rooms with private dining rooms”. The SCU environment has positive impact on “communication, self-care, social function and mobility” status of dementia victims. It also reduces emotional strain and increases satisfaction. Separation between people with and without dementia is necessary as study showed non-dementia residents experience mental declines as a result of living near dementia victims.

1.5 Sustainable Strategy in Senior Center

Bibliography

- [1] Alzheimer's Association. Alzheimer's association alzheimer's disease facts and figures 2014, mar 2014. URL <https://www.youtube.com/watch?v=waeuks1-3Z4>.