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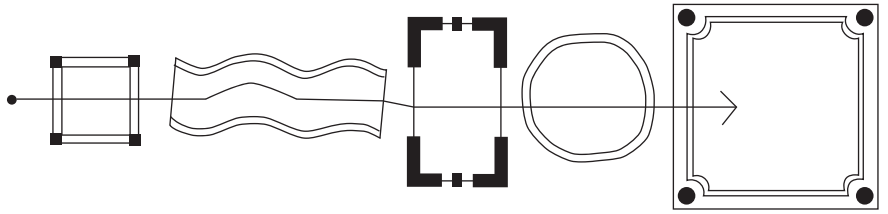
Casa Como Yo

Gabriela Montilla
Syracuse University



C A S A C O M O Y O | Santurce, San Juan, Puerto Rico.

"architecture must provide an enhancing life experience for seniors."

Gabriela Montilla 05.15.11 | ARC 505

“Our experience of architectural space is strongly influenced by how we arrive in it”

--Matthew Frederick

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Statement of the Contention

The key to addressing Puerto Rico's increased life expectancy is to provide housing that improves people's quality of life while growing older. I contend that the role of architecture is to encourage people to embrace aging through a re-conceptualization of senior housing: designed as "not so senior" (which stigmatizes the older individual as being less capable) and more focused on life satisfaction- promoting free will, flexibility, and program integration. Housing for the aging population should accommodate spatial needs over time in a self-directed personal environment, as well as provide interest and connection to the larger urban community.

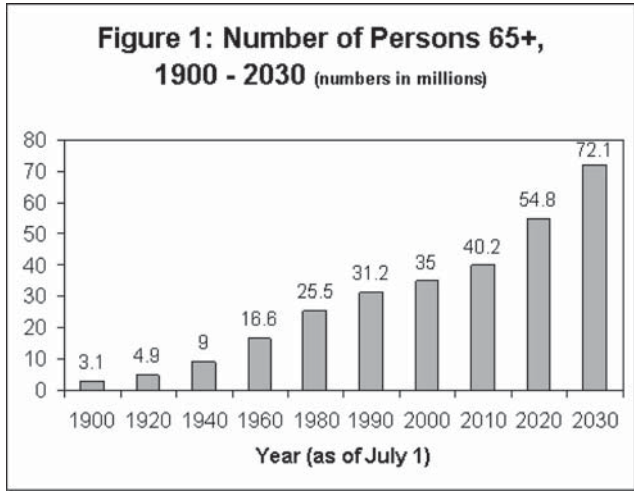
I cannot see any value for instance in the self-sufficient sub community, the remote senior neighborhood, the assisted living village, which is at best a convenient arrangement of certain services; a result of society's idealized expectations of how people should live as they grow older. As people age, their habits, lifestyles and use of space change. That is the contradiction to such fixed entities. With increased life expectancy the aged population will continue to grow.

This is considerable not just in terms of volume but in the resultant demographic variety, which will be dramatically different by the time the Baby Boomers reach age 65. These two aspects bring important changes in the near future for the aged population, which in turn will alter the health status and demands of this group.

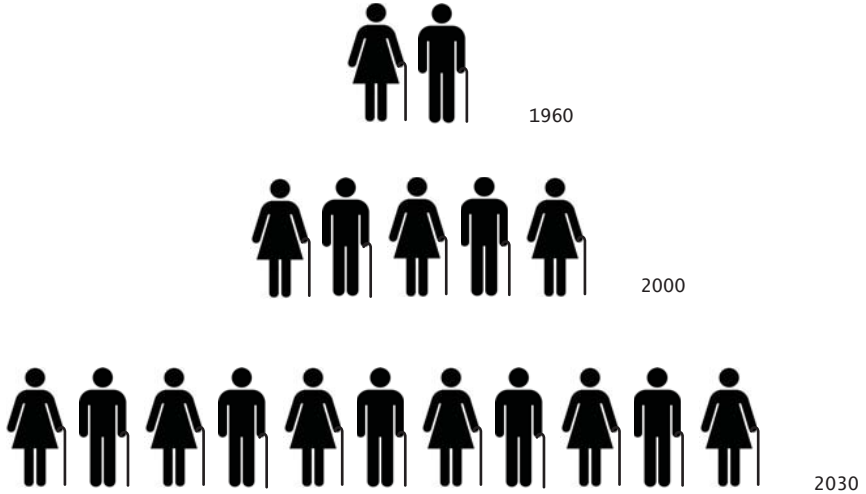
In this thesis, it is the quality of the housing-- the design of the unit and the complex-- that is at issue. Residences must be designed in a way that enables occupants to age comfortably in spite of fluctuations in their functional and emotional needs.

In Santurce, San Juan, near the Museum of Art of Puerto Rico, Ponce de Leon Avenue and Baldorioty de Castro expressway form two limits creating what can be understood as a rich cultural "interior" within the larger sector. By insertion of senior housing, this thesis proposes to articulate an urban space that creates a privileged experience through aging; linked to cultural activities within the area, and surrounding connections to healthcare, business, and leisure.

AGING STATISTICS



source: U.S. Administration on Aging (AoA)



Profile of Older Americans 2009:

* The older population (65+) numbered 38.9 million in 2008, an increase of 4.5 million or 13.0% since 1998.

* The number of Americans aged 45-64 – who will reach 65 over the next two decades – increased by 31% during this decade.

* Over one in every eight, or 12.8%, of the population is an older American.

* Persons reaching age 65 have an average life expectancy of an additional 18.6 years (19.8 years for females and 17.1 years for males).

* Older women outnumber older men at 22.4 million older women to 16.5 million older men.

* Older men were much more likely to be married than older women--72% of men vs. 42% of women. 42% older women in 2002 were widows.

* About 31% (11.2 million) of non institutionalized older persons live alone (8.3 million women, 2.9 million men).

* Half of older women (50%) age 75+ live alone.

* The population 65 and over will increase from 35 million in 2000 to 40 million in 2010 (a 15% increase) and then to 55 million in 2020 (a 36% increase for that decade) .

Aged Population for Puerto Rico 2009:

* 65 years and over: 14.1% (male 240,318/ female 318,027)

* Principal sources of data for the Profile were the U.S. Bureau of the Census, the National Center on Health Statistics, and the Bureau of Labor Statistics.

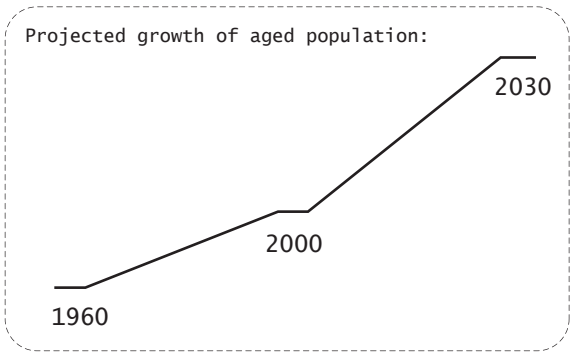
Conceptual and theoretical foundations of the contention.

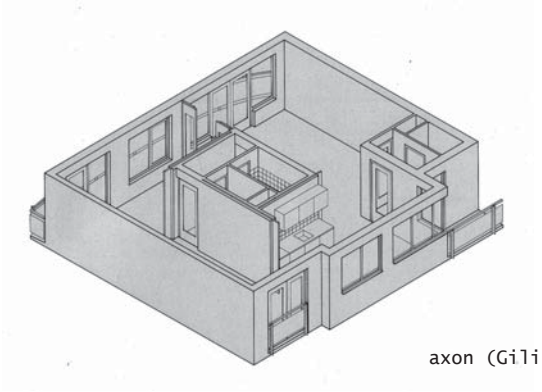
This thesis is presented in the belief that a redefinition of senior housing is appropriate at a time when increased life expectancy has changed our entire demographic structure. Currently, the older population of the U.S. (65 or older) is almost five times what is was in 1960. According to the U.S. Administration on Aging statistics, over one in every eight, or 12.8%, of the population is an older American. **It is projected that the population of adults 65 or older will increase by 36% for 2020, and 45% by 2030**. "This generation will redefine retirement on its own terms: where to live, whether to work, and how to enjoy life" (Landau). Since the 1960s, there has been a radical shift in the way people live and form households, work and enjoy their leisure, grow old and die. Marci Alboher, vice president of Civic Ventures in San Francisco, explains for U.S. News & World Report magazine that at a certain life stage people have always asked themselves: 'What should I do next?' But where the last generation primarily answered that by planning for retirement (i.e. relocating to distant retirement communities), increasingly people want to do something with meaning (Landau). Which is why such a phenomenon requires more than ever the redefinition of home, of senior housing in particular.

The collective dwelling has been central to life extending changes, which affect most aspects of domestic life: interactions between occupants, work and leisure patterns, the type of room arrangements people choose, and the actual use of these rooms.

For example, experts expect many seniors to work as long as they are physically able and to transition when possible into jobs that offer high personal satisfaction (Landau). "As boomers continue working, they won't be able to pack up and relocate to isolated retirement havens...nor would they necessarily want to"- Landau adds. Joel Kotkin proposes in his book The Next Hundred Million: America in 2050 that "baby boomers are narcissistic"- meaning: they feel if you live in a typical retirement community, it kind of brands you. It stereotypes the occupant, and the way he or she should live. This generation doesn't want that. Those of the baby boom generation—the first of who turn 65 in 2011—are expected to transform their later years; much as they altered every life phase they have passed through since making their entrance in 1946 (Landau). This is a generation used to being in center stage. The idea of stepping to the sidelines because they've hit some predetermined magic age, is not going to play with many boomers.

Casa Como Yo is in part an architectural interpretation and a possible response to these recent changes. It is a process of reflection on current phenomena of life and aging, an examination of coming trends, an assessment of case studies, and a composition of construction strategies: strategies that will make senior housing capable of enhancing the senior experience. The main goal of this thesis is to create **a place that seniors want to move into- a privileged, self-directed personal environment to age in- one that provides activity, interest, excitement and connection to the surrounding community**. Primarily focused on the unit, this thesis, will address the quality of the housing-- the design of the unit and the complex. Program integration will allow for an environment that promotes health and wellness.





axon (Gili 36)

sketched plan of Dapperburt apartment, Amsterdam, 1989.

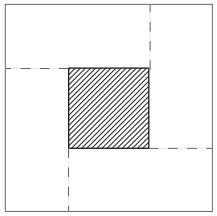
Interior view of Dapperburt apt (Gili 36)

Generalized discussion of the Program.

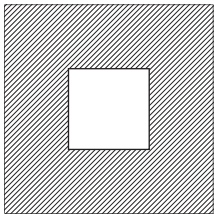
The relationship between the contention and program argues that because of increased life expectancy, and the resulting demographics; architecture must provide a privileged housing experience for the population 65 and older. In order to achieve this, the program for this project consists of three major areas – entrepreneurial spaces, community connection, and prioritized housing units for seniors. The entrepreneurial spaces should interact in some way with the senior housing units. This could be visual or physical/ spatial interaction. How and where all of these program elements come together will simultaneously respond to existing site conditions.

The senior housing portion of the project houses active seniors who do not require any kind of care. If they require care they will be transported to one of the three nearby hospitals within a 15-minute radius. The supportive/ secondary program for the building will be developed at a Site Plan level, while the senior housing units will be developed at a detailed level. Each individual unit consists of one, two-bedroom or studio type arrangements, with living and dining spaces. **Unlike elderly homes, which in many cases are reminiscent of hospitals, the Casa Como Yo unit functions like a personalized dwelling. Housing is focused on the occupant's experience, not just their age**. "The interior space, the domestic cell, is the space par excellence. It is the space that is constructed for; it is the beginning and the end of construction" (Gili 8).

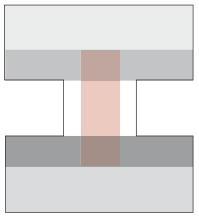
Casa Como Yo is a balancing act between the individualized private cell and collective housing. "Man and his dwellings are capable of transformation: flexible yet permanent" words of Bruno Taut (Schneider 18). Flexibility in unit emerges as an effective mechanism for the occupant to contribute to the conception of the design. This type can be achieved through non-structural walls, panels or furniture units that are movable, pivoted folding, reclining, retractable, etc. (Gili 14) . For example, Dapperburt Housing in Amsterdam (see image above). The square floor plan of these houses is organized around a compact central nucleus containing a bathroom, a small hall and a kitchen. The surrounding space can either be sub-divided by means of movable panels or used as a single free space. The movable panels are stored in cavities in the walls. (Gili 36) In the collective dwelling, flexibility allows for a variety of unit types within the building complex. Some good examples of this type presented here are: Weissenhof Exhibition Apartments by Mies Van der Rohe, and the Galaratesse Housing project by Aldo Rossi. Flexibility comes into play here not merely in terms of the intrinsic organization of the unit, but "unit to unit" to form the complex.



The Inserted Box



Living Room As Centerpoint Original spatial organization of monasteries, exceptionally communicative.



Separation of Functional Areas. Smooth implementation of individual functions.

Steven Holl “Hinged Space” project. Pivoting doors, panels and cupboards makes it possible to accommodate daily and occasional changes of use (Gili 28).

Precedents.

The two contrasting concepts of contemporary senior housing selected for initial comparison were retirement communities/ elderly homes and urban housing. In different ways, they both attempt to resolve issues that are most crucial for seniors: health, support, and life satisfaction. However, this architectural thesis will concentrate on life satisfaction and quality-- through the design of the unit-- assuming health and support services should be provided for externally.

The unit gained priority through initial studies of unit orientation-- single; double; or double, open-ended-- based off of Roger Sherwood’s Modern Housing Prototypes, as well as interior space organization strategies, referencing Friederike Schneider’s Floor Plan Atlas for Housing. Examples of the later kind include Dapperburt Housing in Amsterdam, by M. Duinker & M. van der Torre: “The Inserted Box” where sliding walls allow for open plan and flexible space; Alvar Alto’s Paul Baumgarten in Klopstockstrasse, Berlin: “Living Room as Center Point” where the floor plan develops around some form of central living space; and Francesca Sartogo & Arnaldo Bruschi’s Capo Linaro apartments in San Marinella, Italy: “Separation of Functional Areas” where each individual recieves as much privacy and freedom possible while maintaining a sense of the collective.

That said, the design for Casa Como Yo will focus primarily on unit flexibility and program integration and thus the following housing case studies are presented:

- Galaratesse Housing, Milan: Four blocks joined by a community space that accomodates commercial space and public areas for shared use.

- Carabanchel, Madrid: Sustainable approach to housing. Bamboo screens on terrraces provide shading and residents can open or close them to expand the internal space of each apartment. The architect’s main goal was ‘to provide the maximum amount of space, flexibility and quality to the residences, all within a homogeneous skin able to incorporate a gradation of possibilities not dependent on the architect’s vision but as an effect of the inhabitant’s choice’.

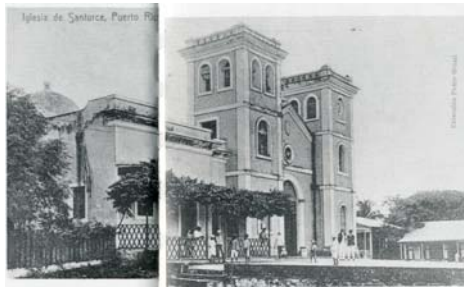
- Housing for the Elderly, Berlin: Extension of an existing structure. Linked to the existing building by creating a similar size footprint as well as a covered atrium space. Triangular one-bedroom flats for the elderly accessed from ramps.

- Casa Rustici, Milan: Modern interpretation of vernacular, good ventilation and lighting in response to climatic conditions of site, building as “object” as well as “space maker”.

- Weissenhof Exhibition Apartments, Germany: 20th century experimental housing by Mies van de Rohe. Flexibility and standardization.

Electric trolley established along Ponce de Leon Avenue, 1914 (Sepulveda 31). Connected four important "nodes" of Santurce, privileging residential areas that developed along that route.

Central School of San Juan 1923 (Sepulveda 41).



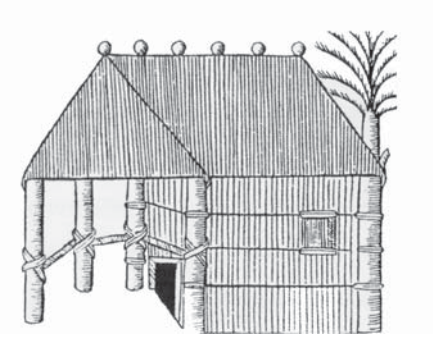
San Mateo Church 1900 (Sepulveda 67).

Project Site.

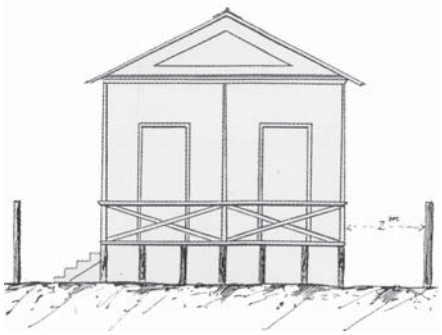
Some seniors may migrate to apartments in urban areas, in search for cultural offerings and good public transportation, or to college towns, for their vitality and intellectual stimulation (Landau). Others may inspire architects to create new forms of housing in their own city or town. Although senior living options have been developed in Puerto Rico in suburban and rural settings, only a few have been developed in urban settings. This project attempts to define how Senior Housing should come together to function in an urban environment. The site selection proposes that an urban location, with surrounding connections, will enable **Casa Como Yo** to most effectively act as a vehicle for enhancing the senior experience in Puerto Rico. To select the urban neighborhood, the current AIA "New Urban Models For Aging" student competition document was a valuable reference for site standards of good quality senior urban living. In accordance to AIA requirements, **Casa Como Yo** is situated in the dynamic urban neighborhood of Santurce; which includes amenities senior residents can use. These include retail and a grocery store, health and wellness programs, greenspace, and educational and volunteer opportunities. Additionally, the neighborhood includes other types of housing. Walkability and visitability were also important features of the neighborhood.

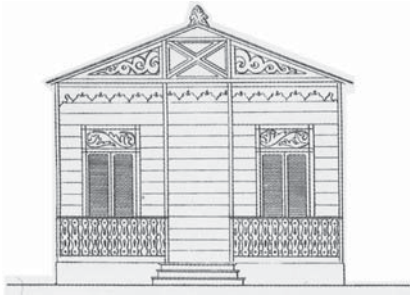
Santurce is essentially a peninsula; which geographically lies within the larger capital city of San Juan, PR. Dr. Anibal Sepulveda, Professor of Urban Planning in the University of Puerto Rico and co-author Jorge Carbonell (Puerto Rican Architect and Urban Planner) best explain the history of Santurce's urban development in their book "Cangrejos- Santurce: Historia Ilustrada de su desarrollo urbano (1519-1950)". Their research states that Santurce arose as a settlement for freed African slaves during times of Spanish Conquest. Furthermore, the book illustrates how the establishment of the steam tramway between San Juan with Río Piedras stimulated the colonization and growth of the district. At the beginning of the 20th century an electric trolley was installed; the township was split into three parts, and its main settlement, merged with the city, was renamed using the Spanish spelling of "Santurtzi" in Vizcaya, Spain. The official Urbanization of Santurce occurred much after its first settlement. Sepulveda states that by the end of 1880, the government recognized an urgent need for an expansion plan from San Juan to Santurce. The decision was influenced by expansion plans developed in the Spanish metropolis; the Cerda plan in Barcelona (1859) and Castro plan in Madrid (1860). The influence is seen through the resultant quadricular plan.

The project site is specifically located in Minillas barrio, a sector within the larger sector. This barrio comprises one of the oldest areas of Santurce, defined by Baldorioty Expressway to the north, Ponce de Leon Avenue to the south, San Jorge Street to the east and the Campo Alegre area to the West. Minillas and San Mateo (adjacent barrio) is an area that includes institutional buildings of great historical value such as schools, offices of the Government, and previously this area also housed the main hospital complex, now the Museum of Art of PR. San Mateo (East of Minillas) takes it's name from the oldest church in Santurce, San Mateo Church. The lot chosen for this intervention faces Minillas Government towers to the north, a center for performing arts to the south, and sits next to a residential tower to the east.



Native “Taino” Indian Bohio and Caney





19th century Santurce dwelling (Quiles 90)

The Vernacular Dwelling

“It is not possible to speak of a ‘unique Puerto Rican vernacular housing’ but of a series of tactical arrangements, elements and general concepts about the spatial organization, use of materials, ways to deal with the climate and architectural expression, that occurs with differences across the country” (Quiles 91).

The vernacular dwelling of Puerto Rico is a fusion of indigenous, African and European origins with 19th century American “balloon frame” and “platform frame” structural systems. The native dwelling was most strongly influenced by the “bungalow” typology, first introduced to the Caribbean by European settlers. Consisting of a simple organization of pitched roof and peripheral or front gallery; which later became the single most integral element of the dwelling: the balcony (Quiles 94).

American inlfuence was most dominant in means and methods for construction. Wood and zinc came in large quantities from the U.S; followed by the introduction of concrete in 1906. Concrete became the material of choice from the 1940s onward because of its modern qualities, resilience to harsh climate, insects and time.

SITE/FIT.

Establishing a scale comparison is best done by taking a known entity and placing on the site (BMC). In this case Slocum Hall was taken and deposited on the site, again for scale purposes. In comparison to Slocum Hall, which has a building footprint of 21,000 SQ FT, the area of the site is 18,200 SQ FT. Initial studies to accommodate the intended program for Casa Como Yo-- with residential, core/ service, plus amenities—show that it would take approximately 41,530 SQ FT of built space divided into four storeys.

HOUSING FOR THE ELDERLY IN PUERTO RICO

* Remote Locations
* Controlled Environment
* Poor Quality of Life
* Complete Disconnection
* Focus on convenience of services; not on the unit/ individual
* Hospital like

RAMEY GOLDEN AGE, Aguadilla, PR

HOGAR CASA MATILDE, Isabela, PR

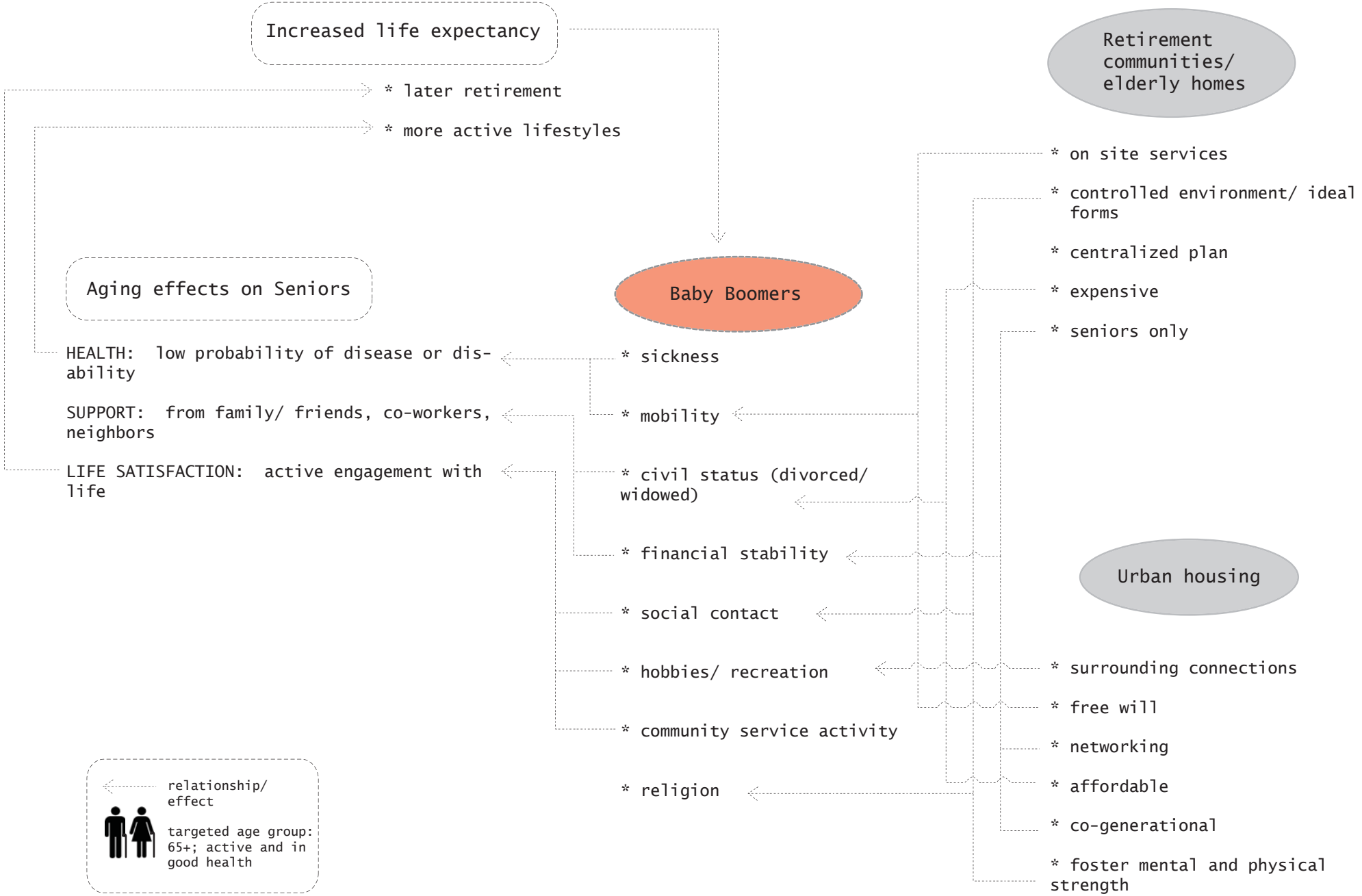
HOGAR CASA MONICA II, Bayamon, PR

HOGAR RAILEEN, Rincon, PR

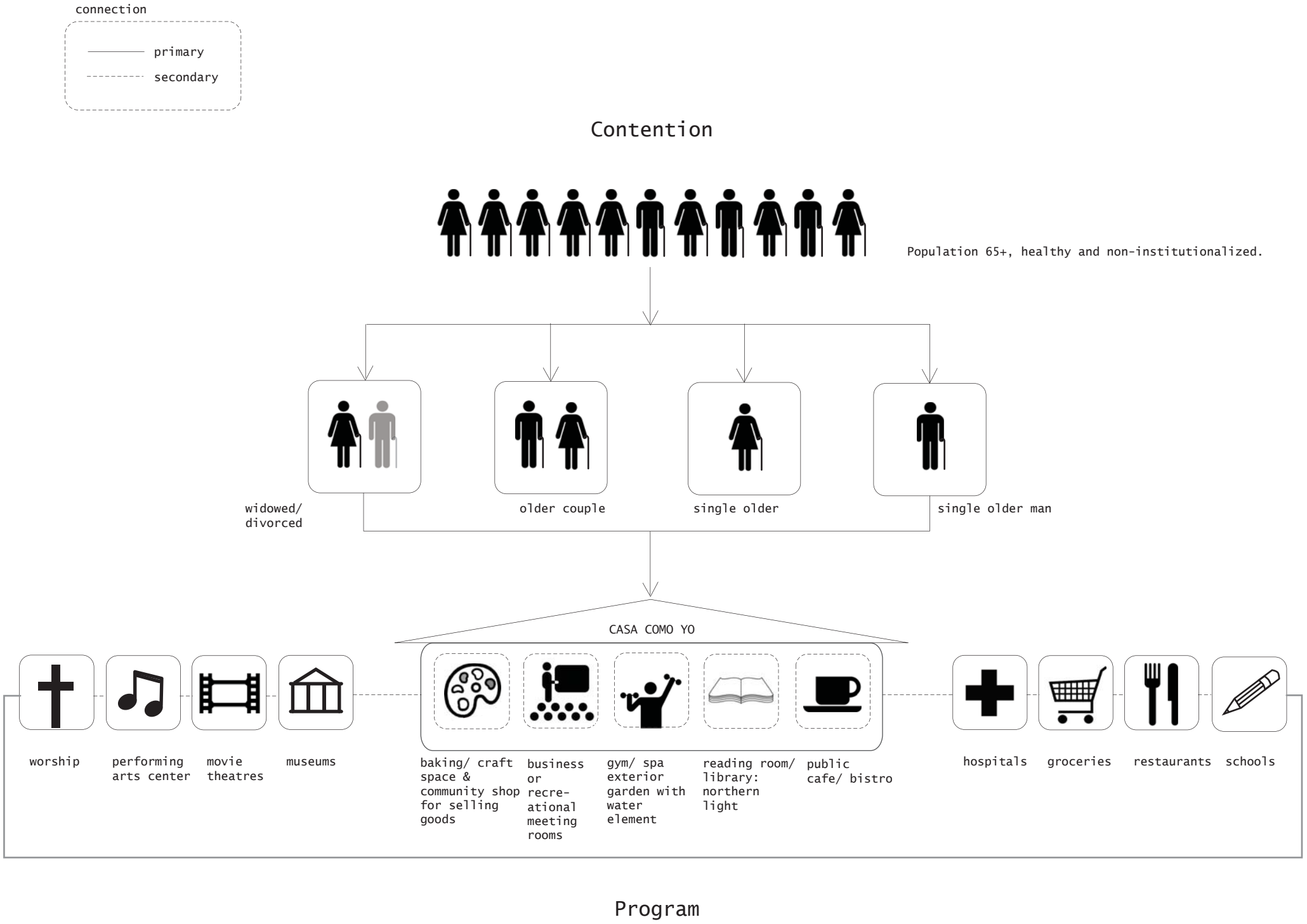
HOGAR SAN LAZARO, Las Piedras, PR

HOGAR ESPERANZA DE VIDA, Dorado, PR

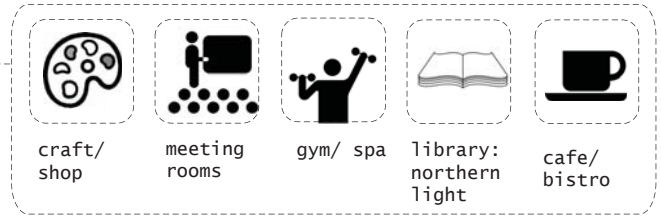
THEORY BEHIND THE CONTENTION



RELATIONSHIP BETWEEN CONTENTION AND PROGRAM



PRIMARY PROGRAM: CASA COMO YO



Space		Quantity	SQ FT	Total
Entrance	Entry vestibule/ Lobby.	1	500	500
	Concierge and Reception area.	1	250	250
	Port cocher/ roofed pick up & drop off area for vehicles	1	500	500
Private Residential	Studio Apartments; Sleeping/ kitchen/ living/ dining room space + 1 bath.	30	500	15,000
	Single Apartments; 1 Bedroom + 1 bath, plus kitchen, living/ dining room space and balcony.	20	800	16,000
Public Core/ Service	Elevators and elevator lobby; adjacent to entry vestibule (1 per floor).	4	500	2,000
	Fire stairs	4	300	1,200
	Public Restroom (men's & women's)	2	600	1,200
	Electric room	4	120	480
	Mecanical room	4	300	1,200
Ammenities	Spa/ Gym	1	500	500
	Crafts space/ community shop	1	400	400
	Buisness Meeting rooms	2	200	400
	Cafe/ bistro	1	600	600
	Library/ Reading room with double height space/ Media room. Northern light.	1	800	800
	Laundry room	1	500	500
Exterior	Contemplative Garden with water element.	1	600	600

Building Total

41,530 SQ FT

SECONDARY PROGRAM: WITHIN A 15 MIN RADIUS

SANTURCE, PR

1": 1000'

performing arts center

Centro de Bellas Artes Luis A.Ferre

movie theatre

Metro Cinema

museum

Museo de Arte de PR

school

Robinson St. John's Ballet School San Juan High School

worship

San Mateo Church

hospital

SJ Presbiterian Pavia SJ Health Center San Jorge Children's H

groceries

Supermax Central Marketplace

restaurants

Ground Floor Restaurants/Cafes

Centro Europa Office and Commercial Building

PROGRAM FOR ENHANCED QUALITY OF LIFE: COMMUNITY INVOLVEMENT AND DAILY RITUALS

Lourdes

fashionable widow; art collector
hobbies: jewelry making
age 65

Salvador

bachelor; language professor at Sacred Heart University
hobbies: theatre
age 69

Pepe & Conchi

old married couple
hobbies: eating out, leisure walks, nosing around
ages 66, 68

Esteban

former lawyer; now private consultant
hobbies: teaching & writing
age 67

* fictional characters based on contemporary aging demographics

Pepe and Conchi look at the bulletin board for activities. Meanwhile Salvador and Esteban bump into eachother in the lobby. Salvador mentions he saw a hurricane warning on the news today, they talk about it for a while and he procedes to check his mailbox.

9 am/ 9 pm

The San Juan Symphonic Orchestra is showing tonight at Bellas Artes. Pepe & Conchi arrive early to keep track of everyone there. They wonder who Salvador's lovely date is...and quickly go inside to meet some old friends for a drink at the bar.

6 pm

Salvador and Lourdes meet in the Casa Como Yo cafe, where they purchase fresh pastries baked daily by Conchi. They argue over the political status of Puerto Rico.

Sipping their cappucinos in the garden, Pepe and Conchi discuss what to do first today. They decide to walk to the market.

11 am

Casa Como Yo conference rooms can be reserved for classes, private meetings, seminars, farmers market and craft bazaars.

Esteban meets with a former client, whom he won a mayor case for over 10 years ago.

4 pm

Lourdes plays with her grandchildren in the plaza facing Minillas Government Towers, then takes them across the street for ice cream after a long time in the sun.

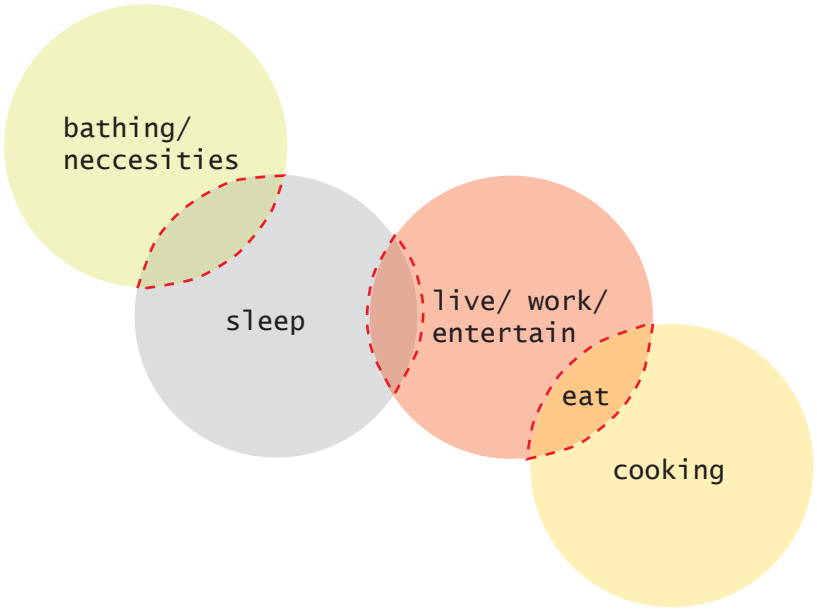
Her daughter is joining them at 3 for a jewelry making seminar followed by a Christmas bazaar held in Casa Como Yo.

2 pm

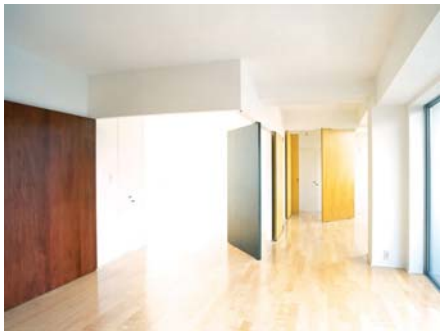
SENIOR UNIT PLAN SPECIFICS

CONTROL OF “BACKSTAGE”

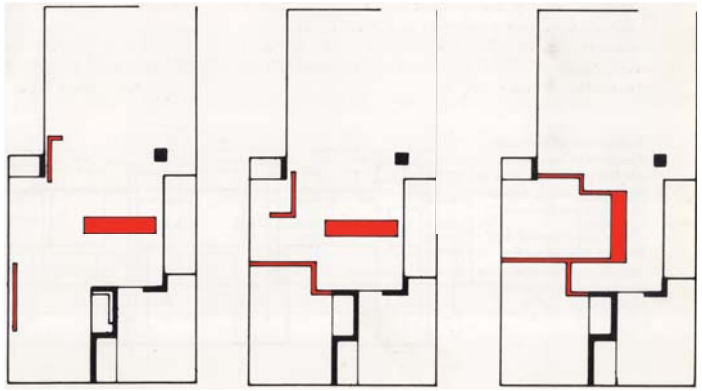
--- areas of overlap for fusion of program:



STORAGE + DISPLAY



Housing in Fukuoka, Japan. Steven Holl 1992.



Plan diagrams of moveable storage space and partitions

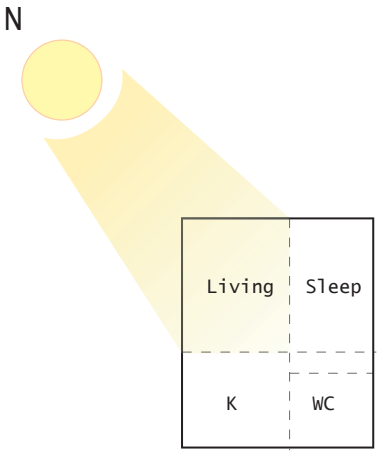
In his book, Midrise Elevator Housing For Older People: Behavioral Criteria for Design, John Zeisel states that “visual privacy in ‘backstage’ areas such as bedrooms, bathrooms, and kitchens is essential if residents are to maintain their dignity with visitiors”.

However, in Casa Como Yo- 60% of the units are for single seniors. Does one really need that much privacy? Certain functions of the unit plan can be “fused” together for the single occupancy dwelling, where privacy is no longer an issue.

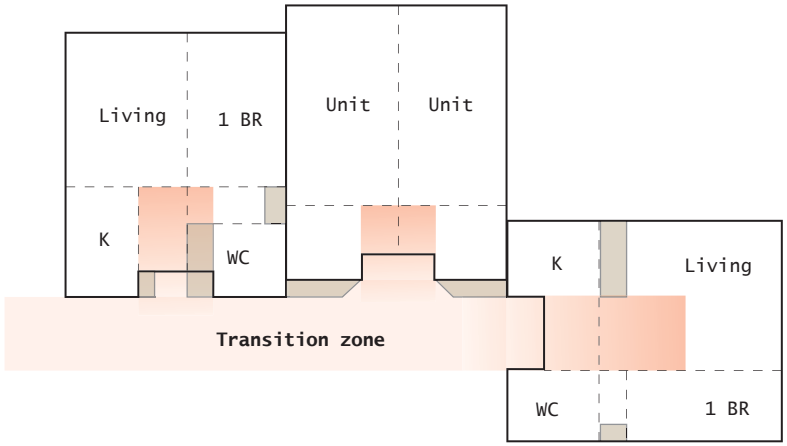
Over a lifetime, people typically have accumulated many objects that reflect personal tastes and lifestyles. The more storage space older people have, the more satisfied they tend to be with where they live (Zeisel 119).

Steven Holl’s 1992 housing project in Fukuoka, Japan turns traditional storage space into a more contemporary multi-use concept. Pivoting doors, panels and cupboards makes it possible to accommodate daily and occasional changes of use. The layout of the space can be adapted to give a larger living area during the day, and returned to bedroom use at night (Gili 28).

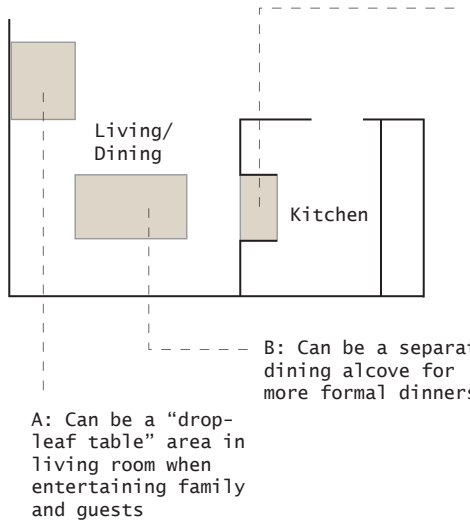
ORIENTATION



UNIT EDGE



OPTIONS FOR EATING



Snack Counter: Between the kitchen and living room, a counter wide and low enough to sit and eat at and open to living room windows. To provide a view to natural light for residents having a snack alone.

Also doubles as a convenient food pass-thru to a dining room table in the living room when having company over.

All flats should be designed so that at least the living room or principal bedroom enjoys **a minimum of three hours sunshine per day** throughout the year. With decreasing mobility it will be important that living rooms have an interesting and pleasant view.

For some seniors a peacefull and pastoral view (of an interior garden perhaps) is ideal, while others prefer to have a window on the world so that they can see urban activity and feel in touch.

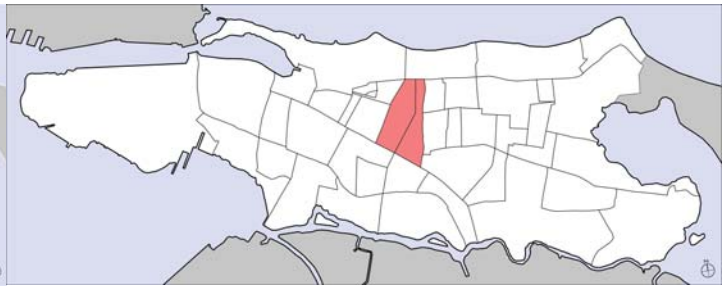
Transition Ritual: In this zone residents prepare to present themselves to the rest of the world by doing such things as putting on purses or hats. Residents also present themselves to others symbolically at the unit edge with decorations saying "this is who I am and where I live." The unit edge is where residents deal with problems like carrying packages while opening the door and controlling access by outsiders (Zeisel 109).

For older people, occasional formal dining becomes a significant way to maintain family roles and social contact with others. Paradoxically, when eating alone, they are likely not to set the table but rather to have a quick snack in the kitchen or on a TV tray while watching television (Zeisel 116).

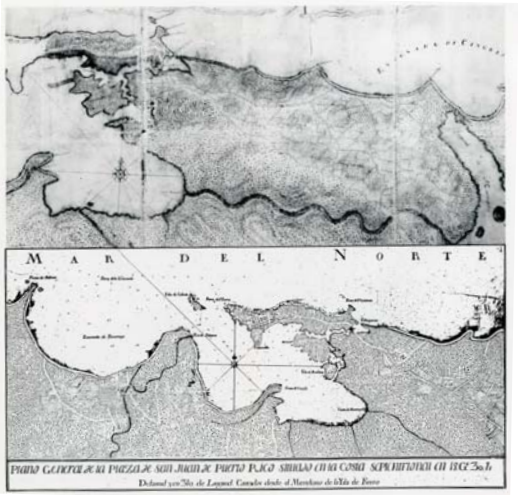
SITE LOCATION AND HISTORY

San Juan, PR

Santurce, San Juan, PR



"Sub- barrios" of Santurce. Minillas & San Mateo.



Santurce 1750 (Sepulveda 12)

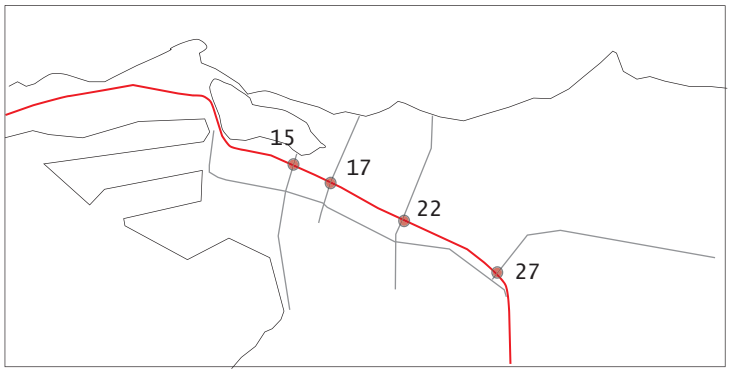


Diagram of original trolley route - residential "nodes"

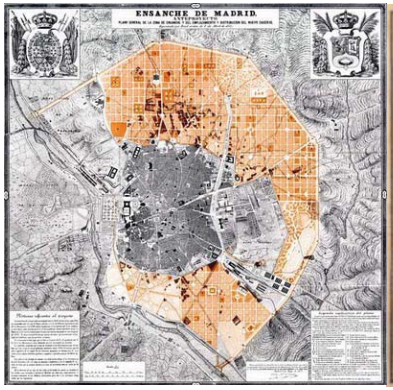
Proposal for development of Minillas sector 1952. (Sepulveda 67)

Santurce, PR

Originally named San Mateo de Cangrejos (Saint Matthew of the Crabs), was a settlement for freed African slaves during the early days of the city. In 1878 the establishment of the steam tramway between San Juan with Río Piedras stimulated the colonization and growth of the district. At the beginning of the twentieth century an electric trolley was installed, the township was split into three parts, and its main settlement, merged with the city, was renamed using the Spanish spelling of "Santurtzi" in Vizcaya, Spain.

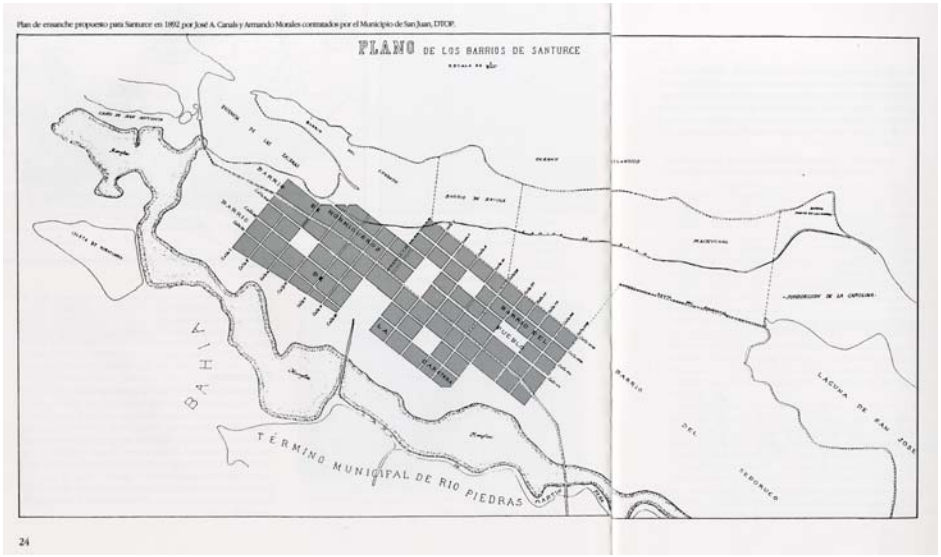
Minillas & San Mateo

Sector comprised of one of the oldest areas of Santurce. It occupies approximately 4,660,920 sq ft of land, defined by Baldorioty expressway to the north, Ponce de Leon Avenue to the south, San Jorge Street to the east and the Campo Alegre area to the west . Minillas (west) is an area that includes institutional buildings of great historical value such as the Central School of San Juan and the building complex housing the offices of the Government of Puerto Rico. Previously this area also housed the main hospital complex of the area, now the Museum of Art of PR. San Mateo (east) takes it's name from the oldest church in Santurce, San Mateo Church. San Jorge street, is perpendicular to Ponce de Leon Avenue, and in alignment with the height of the church. This was one of the first north-south connections in Santurce.



Castro's plan for Madrid (1860)

Cerda plan for Barcelona (1859)



Plan for expansion of Santurce, 1892. By Jose A. Canals and Armando Morales, DTOP (Sepulveda 24).

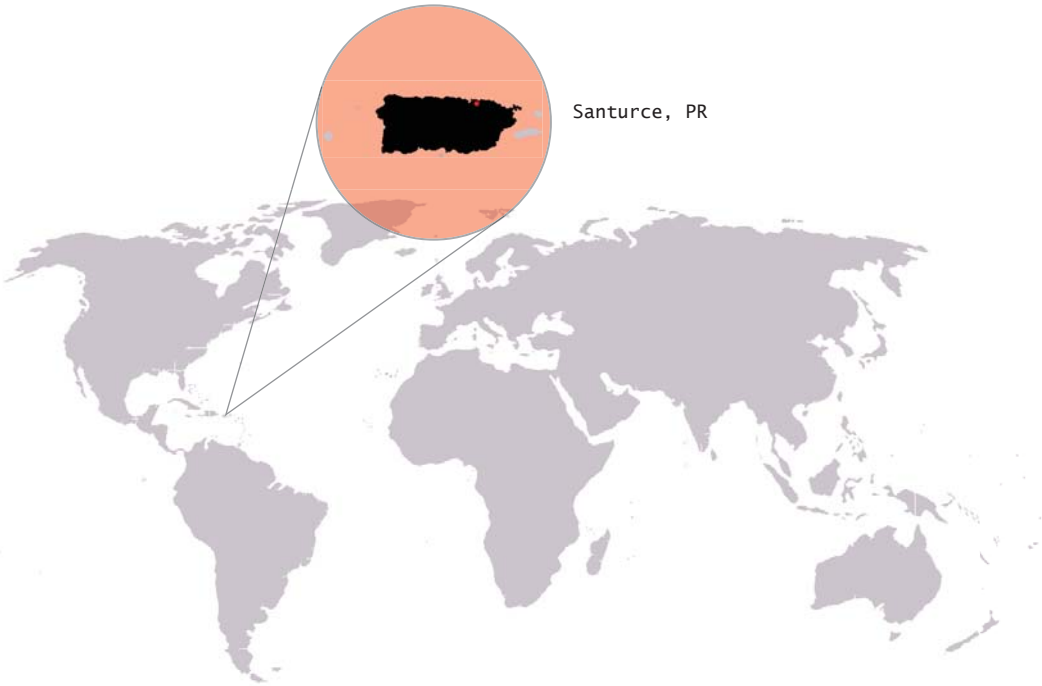
Urbanization of Santurce

By the end of the decade of 1880, the municipal government recognized an urgent need for an expansion plan from San Juan to Santurce. The decision was influenced by expansion plans developed in the Spanish metropolis-- the Cerda plan for Barcelona (1859) and Castro's plan for Madrid (1860).

Maximum occupancy of Santurce, 1930-1950s, as result of sprawl from Old San Juan (walled city). (Sepulveda 47)

SITE ANALYSIS: CLIMATE AND GEOGRAPHY

solar path over site plan



geographical location

Summer Sun Altitude:

7:00AM	14
12:30PM (Peak)	85
6:00PM	1

Winter Sun Altitude:

07:00AM	0
12:30PM (Peak)	48
6:00PM	14

* sun path diagram (Gaisma)

* The geographical latitude and longitude of Puerto Rico is 18º 15' N and 66º 30' W. It lies between the Caribbean Sea and North Atlantic Ocean. The total area is slightly smaller than three times that of Rhode Island (US).

* San Juan, the capital, is located on 18º 28' N and 66º 07' W latitude and longitude respectively. As part of the northern hemisphere, the winter sun rises in the southeast, peaks out at a low angle above the southern horizon, and then sets in the south-west.

* Typical “Caribbean tropical” weather. In May, temperatures are in the high 80's, but trade winds keep the weather feeling a pleasant 74'F all year around. Short rain showers daily during this period are also common in the north-eastern part of the island, and up in the rain forest. Like most Caribbean islands, Puerto Rico is subject to an occasional hurricane warning (May - October).

SCALE AND PROGRAM FIT ANALYSIS

Site: 18,200 SQ FT

Slocum: 21,000 SQ FT (footprint)

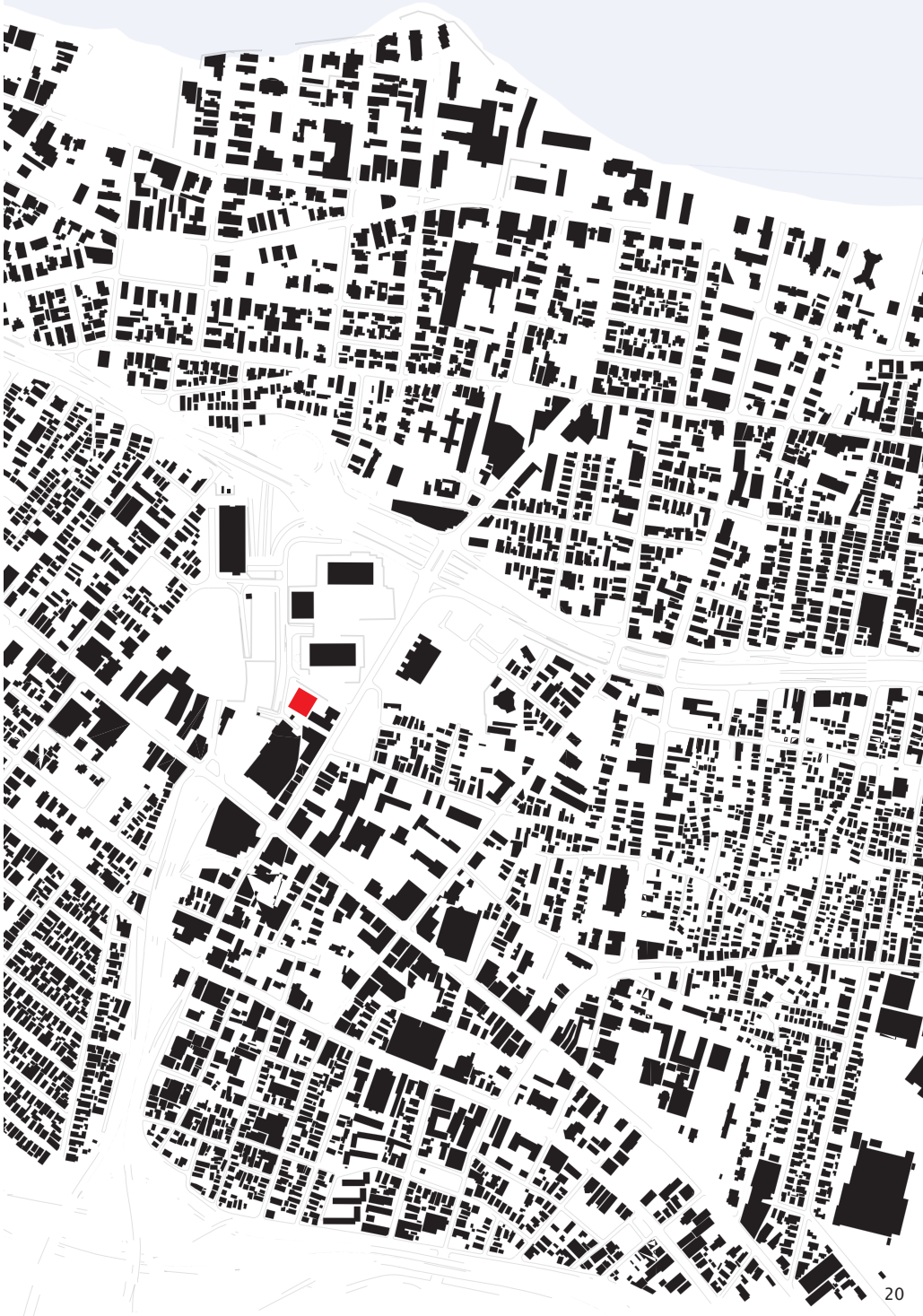
3D massing model

Intended program for Casa Como Yo:

41,530 SQ FT / 18,200 SQ FT = 2.3 (F.A.R)
(approximately 4 storeys)

SANTURCE, PR

1": 1000'



SITE CONTEXT

- residential
- commercial
- cultural
- civic/open space
- greenspace

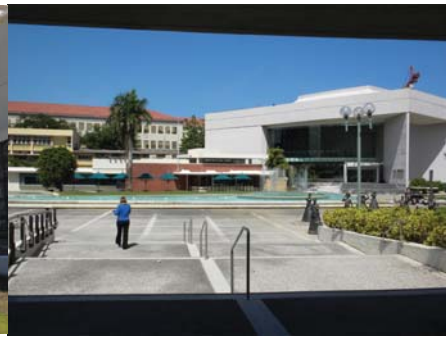
Views from Minillas Government Center, front plaza. Civic space.

View north, towards Minillas. Greenspace.

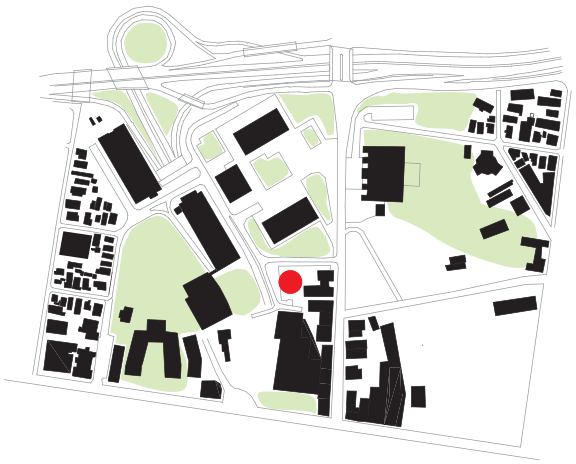
View of residential tower, ground floor bistro, along De Diego Avenue. East of Site.

View from Bellas Artes Center towards site.

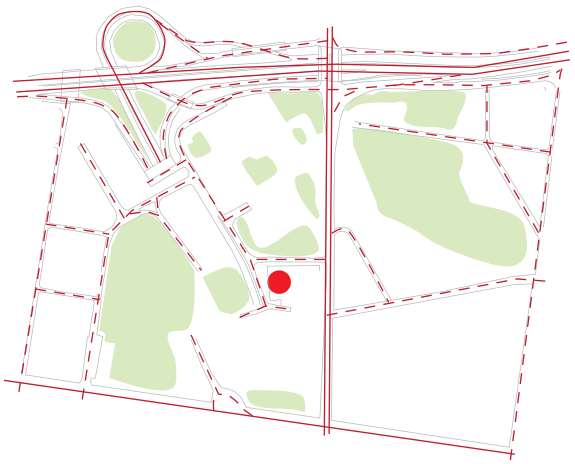
View from Bellas Artes Plaza, towards the Conservatory of Music.



SITE ANALYSIS: TRAFFIC ROUTES, BUILT AND GREEN SPACE



figure/ ground



primary and secondary roads

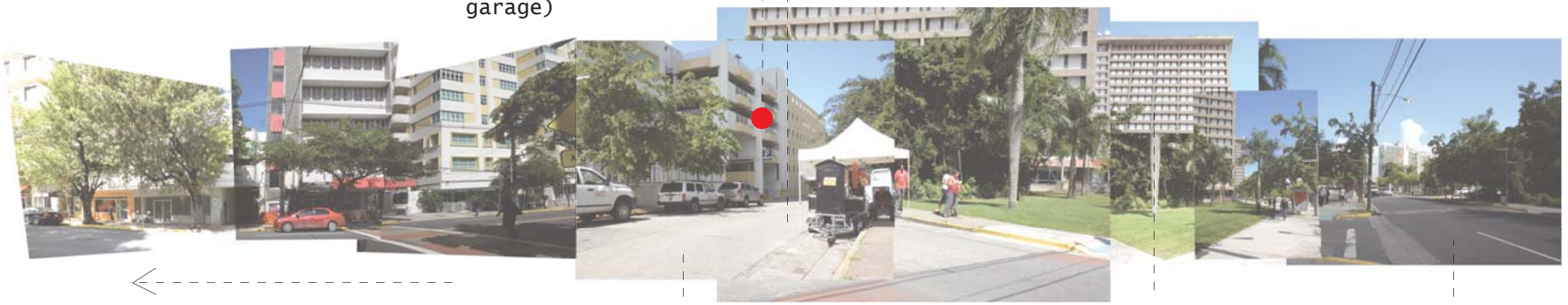
greenspace

● Casa Como Yo faces Minillas Government towers to the north, Bellas Artes Center for performing arts to the south, and sits next to a residential tower to the east.

Photo montage of street conditions:

service street

Casa Como Yo site (actual parking garage)



De Diego Avenue south

service street

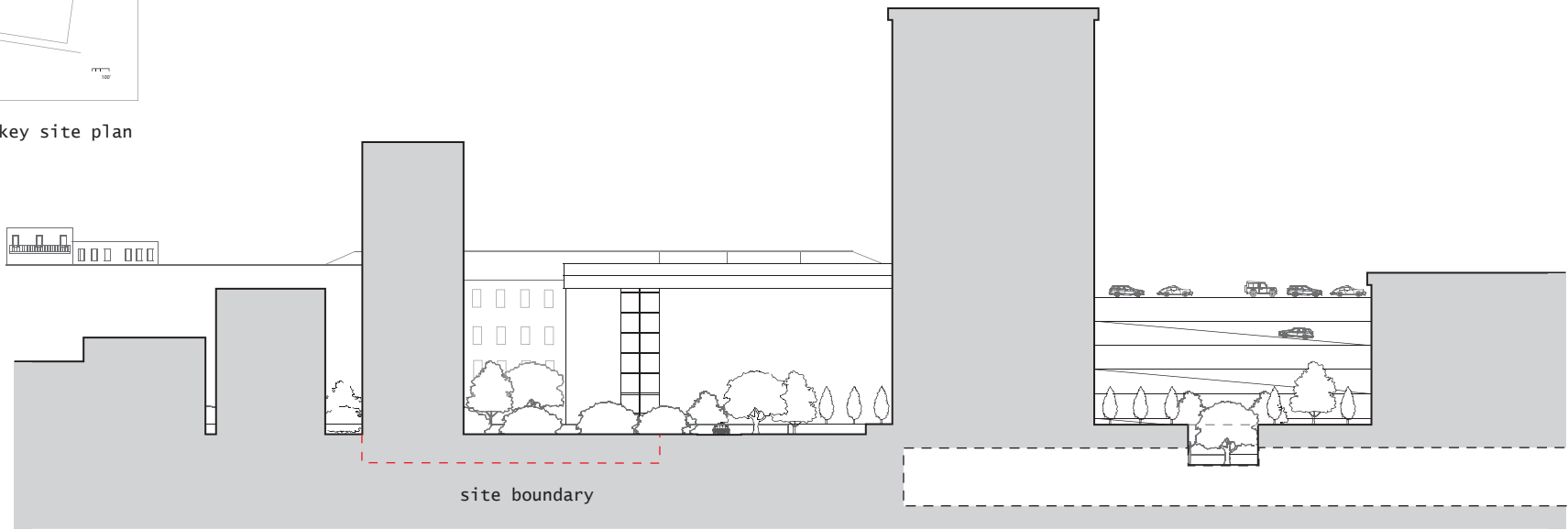
Minillas Govt. Center

De Diego Avenue north

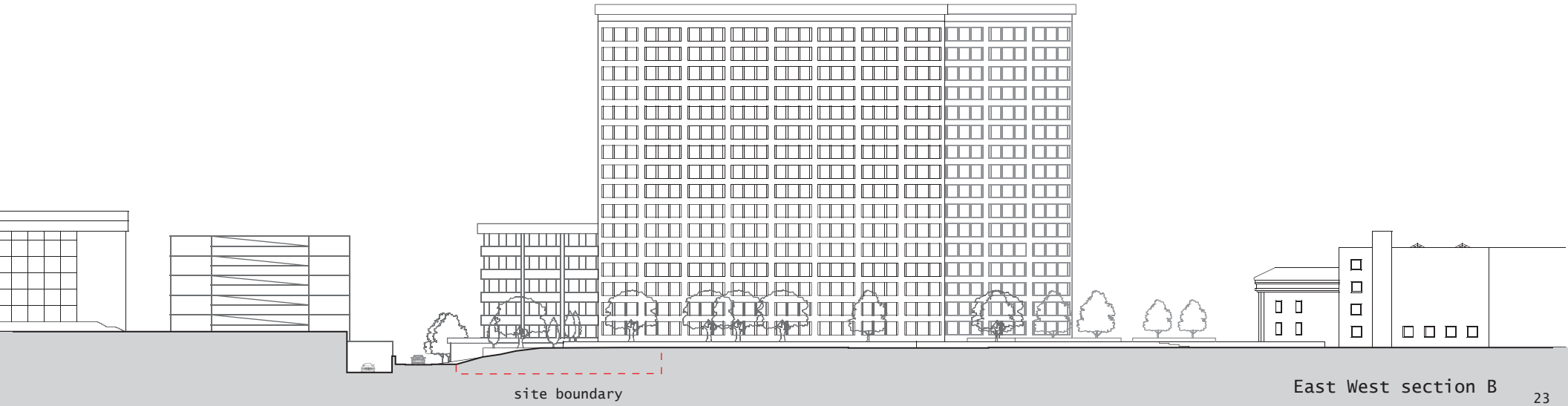
SITE SECTIONS

10’ 20’ 50’

key site plan

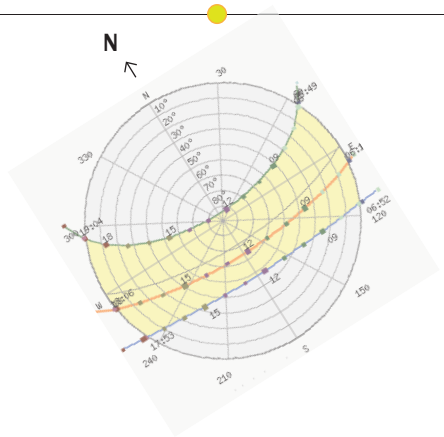


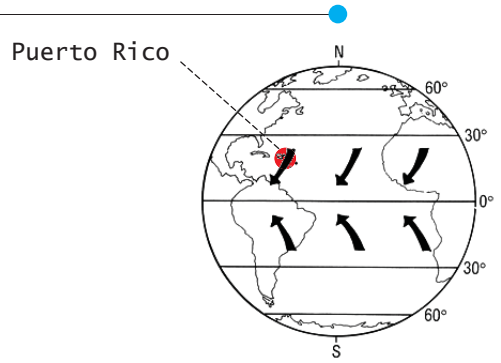
North South section A



East West section B

SUN EXPOSURE AND VENTILATION



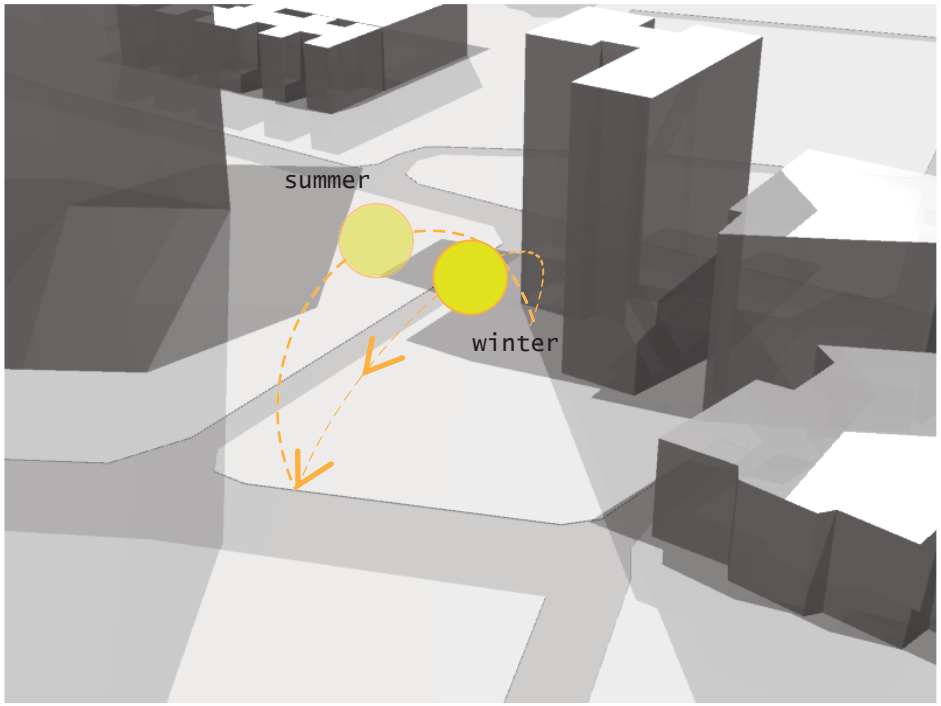


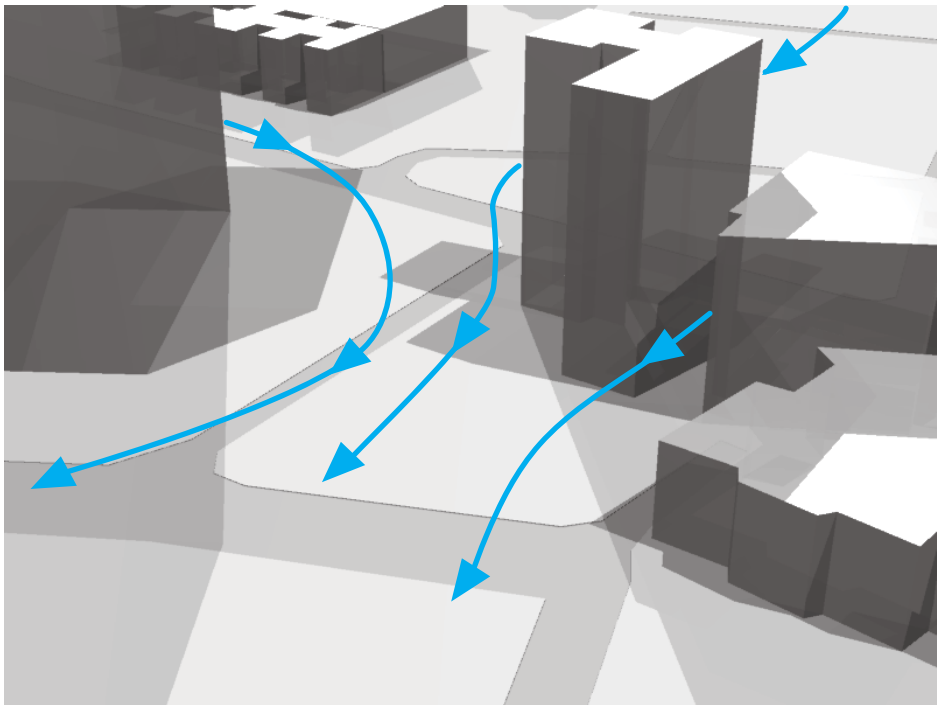
* In the tropics, vertical south-facing facades should have shading systems to protect from intense exposure and excess heat.

* On the south (equator) side, the site experiences direct solar gain all day long.

* **Trade winds** between about 30° latitude and the equator are steady and blow about 11 to 13 miles per hour. In the Northern Hemisphere, the trade winds blow from the northeast and are known as the Northeast Trade Winds.

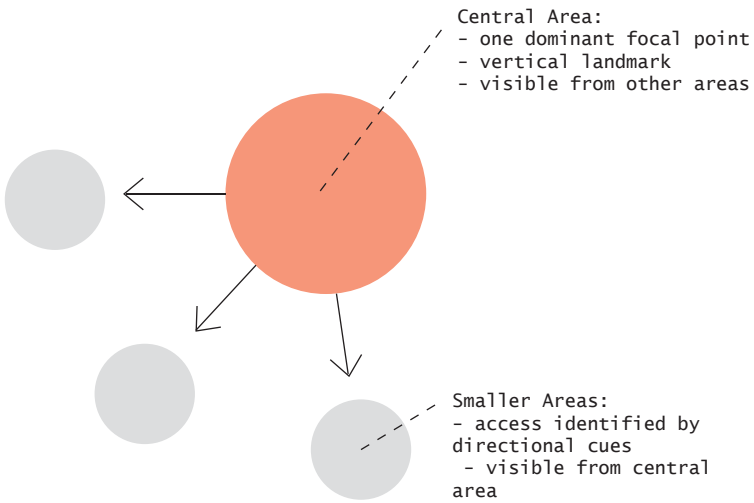
* Tropical NE Trade winds flow towards the west. Sea breezes can also have an impact on the site.



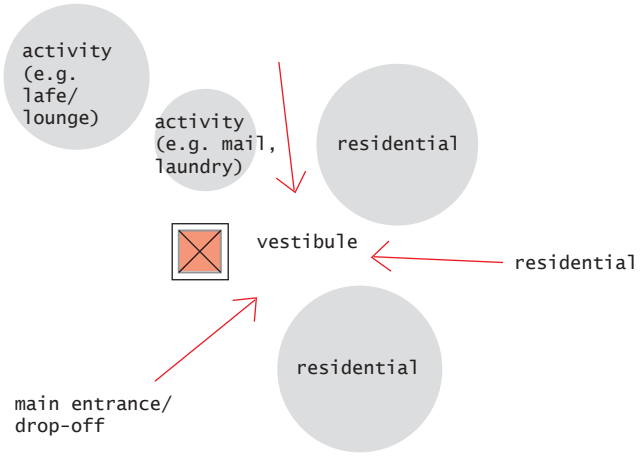


SENIOR SITE PLAN SPECIFICS

ORIENTATION AND "WAYFINDING"

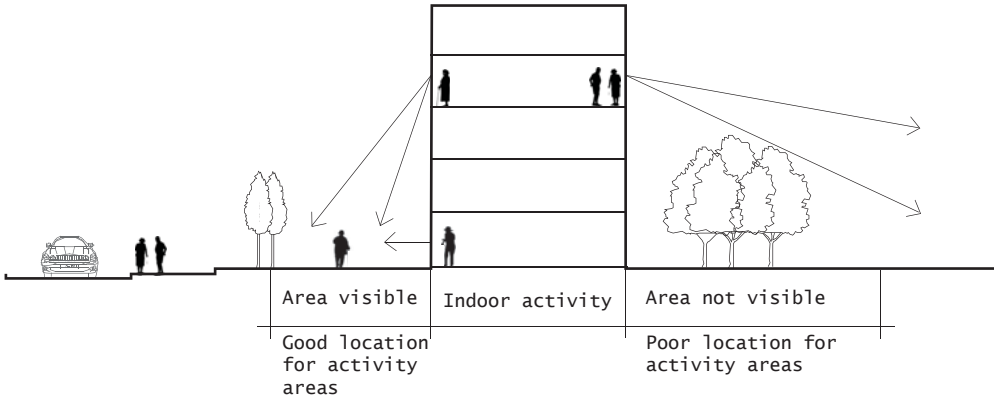


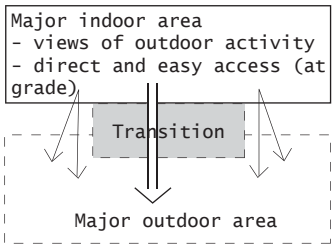
ELEVATOR CORES

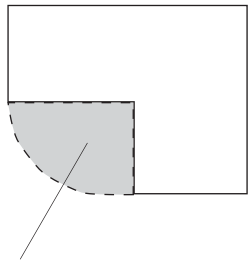


So that residents can find the elevator no matter where they are coming from within the building, the elevator's location will be apparent from community rooms, laundry facilities, and residential corridors, and most importantly: from the main entrance (Zeisel 88).

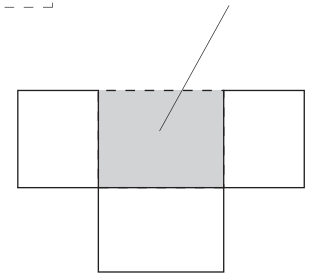
A SAFE AND SECURE ENVIRONMENT







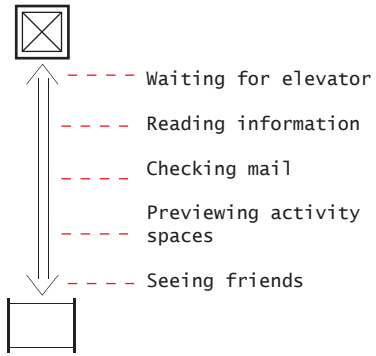
Good locations for senior urban activity



The design of outdoor spaces should promote real and perceived security and safety.

Indoor- outdoor transition areas promote outdoor use by allowing for physical and psychological adjustment to the demands of the outdoor environment (Carstens 26).

THE ENTRY TRIP

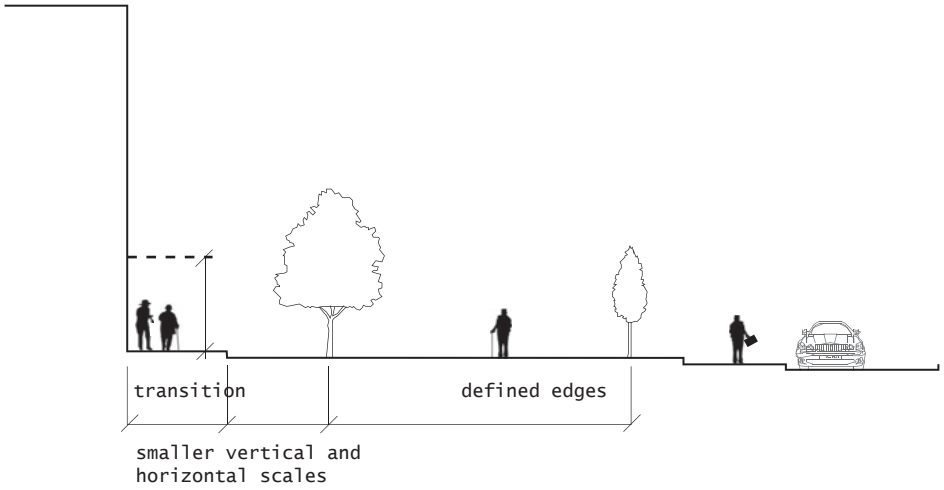


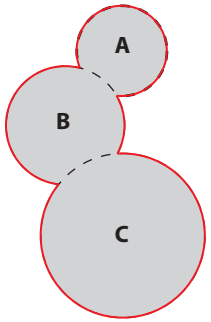
Going from the building's front door to an elevator in a mid-rise building constitutes an entry trip most residents take daily. In a warm region, like Puerto Rico, this may be accomodated with direct open-air access. Being able to catch glimpses into community spaces to find out what is going on there is an important element of the trip (Zeisel 50).

In addition to the need for clear and unambiguous uses for spaces, smaller spaces are generally more appropriate for socializing and are preferred by older people (Carstens 22).

The general site plan and landscape treatment should create a series of smaller, more intimate spaces.

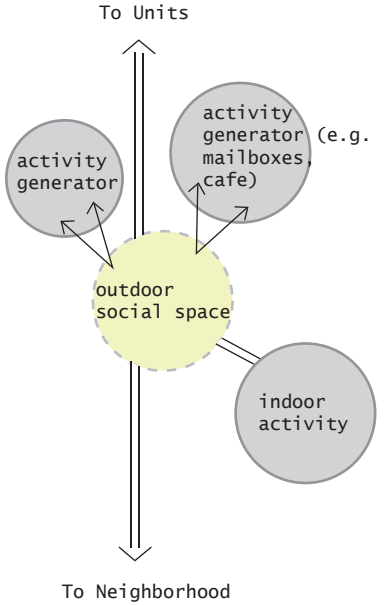
SPATIAL PREFERENCES |
Space for Socializing, Mastering, and Claiming





Smaller subareas A, B, and C for socializing, intimacy, and claiming connect to form larger contiguous area.

PLEASURE OF THE OUTDOORS |
Outdoor Areas for Social interaction



- Building entry areas are most popular spots to sit and watch activity and to meet and socialize casually.

- Community centers and recreational areas provide opportunities for meeting residents engaged in other activities.

- Areas adjacent to indoor activity spaces and frequently used services, such as lounges, lobbies, laundry facilities, and mail delivery areas, provide similar opportunities.

- Areas adjacent to unit balconies and patios provide opportunities for meeting others passing by.

- Walkway intersections, particularly those leading from units to activity areas, parking lots, community centers, or laundry rooms, are prime locations for seating areas and socializing.

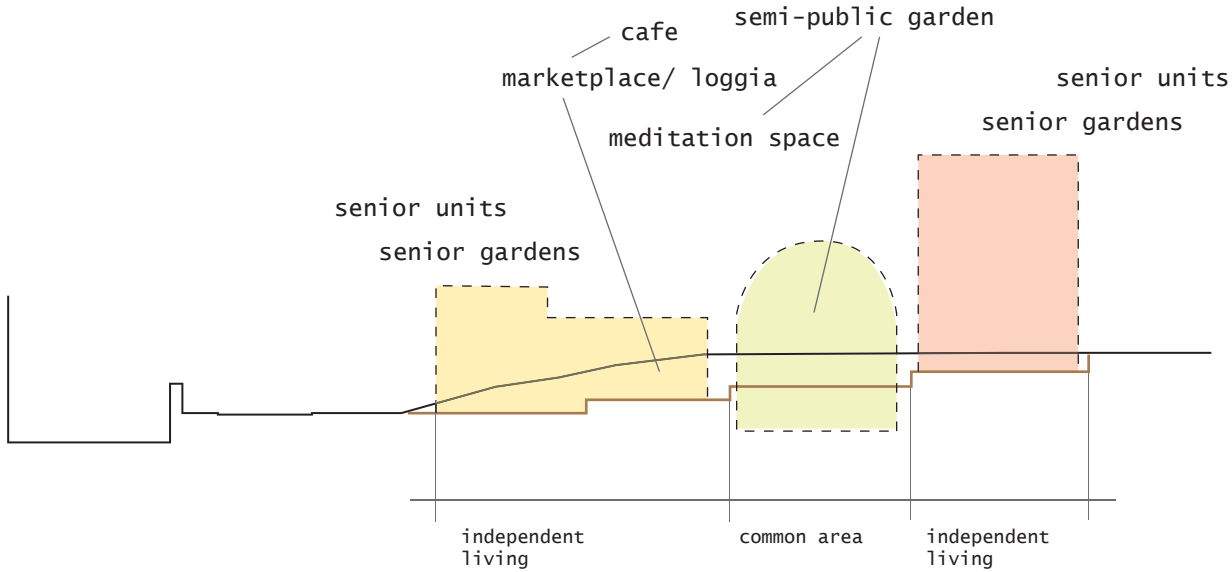
- Areas near neighborhood activity, especially when at building entries, tend to attract interest and draw people.

- Areas adjacent to cafes or other food services and (group or individual) kitchens are good locations for social areas (Carstens 83).

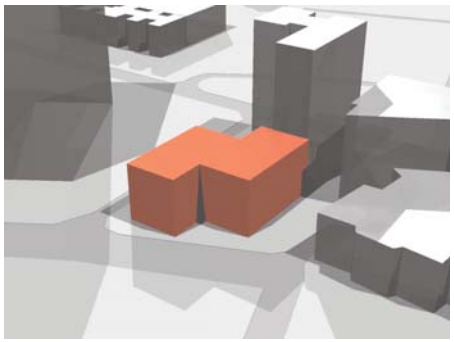
ON-SITE CONDITIONS |

Preliminary section parti of how site slope could be manipulated to enhance senior's experience of the space

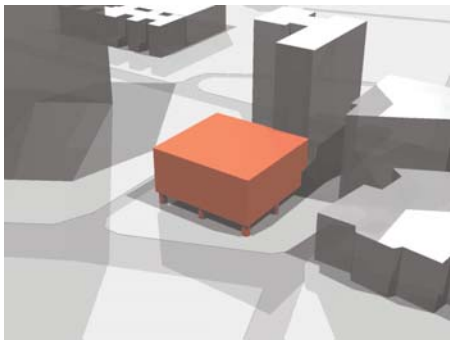
* Changes in landscape treatment and changes in topography can provide "separate identities" without isolation. Shared common space provides a space for interaction.



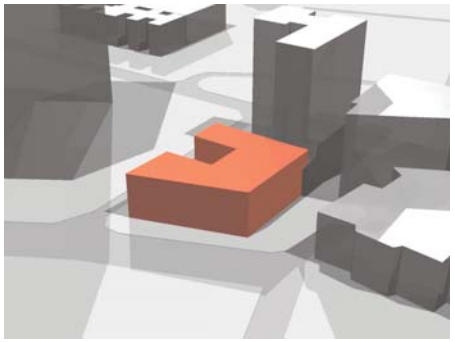
Formal testing of different massing strategies to accomodate 41,530 sq ft program on site



split bar scheme



building on piloti

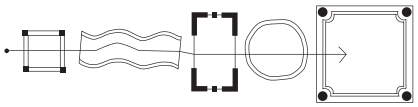


"U" spatial organization

spatial organization

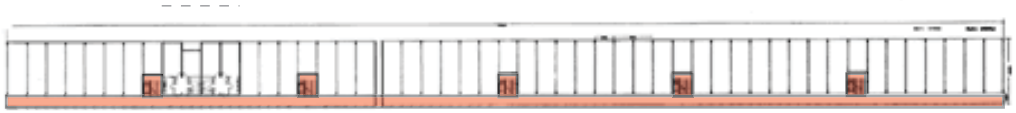
CONCLUSION

"Our experience of architectural space is strongly influenced by how we arrive in it"
--Matthew Frederick



The role of architecture is to encourage senior citizens to embrace aging through a re-conceptualization of housing | designed to enhance their life experience.

This thesis proposes to articulate an urban space that creates a privileged experience through aging | where seniors claim their place in the city as active citizens of the community, able to engage in urban activity without compromising the security and personal freedom offered by the Casa Como Yo dwelling.



upper floor (Rossi)

ground floor (Rossi)

Ground: public domain

I.

Project: Gallaratese

Architect: Aymonino, Carlo, Studio Ayde, Aldo Rossi

Location: Milan, Italy

Building Type: Slab, single-loaded, gallery and point-access

Number of Dwellings: 440

Date: 1967-74

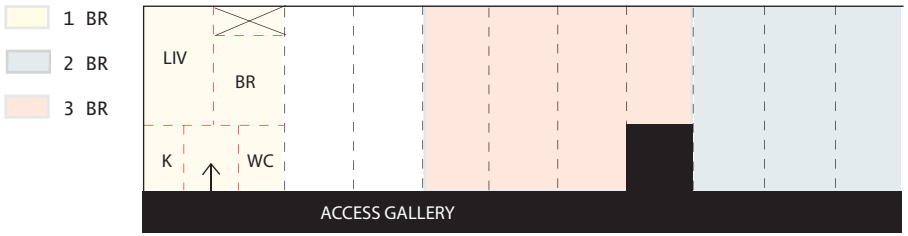
Dwelling Types: studio, 1,2 3 BR, duplexes

No. Floors: 3-8

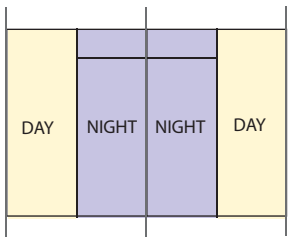
Section Type: flats and duplexes

Materials: concrete, stucco, metal, glass block

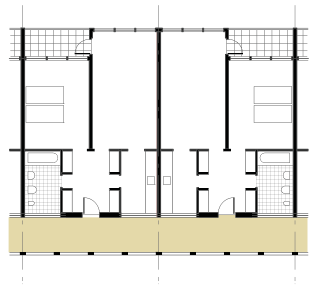
Ammenities: parking, shopping, offices



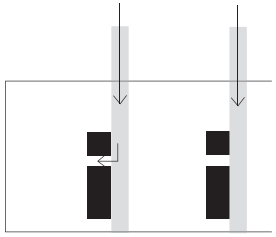
Upper floors: repetitive studio units and 1,2,3 BR variations 1:400



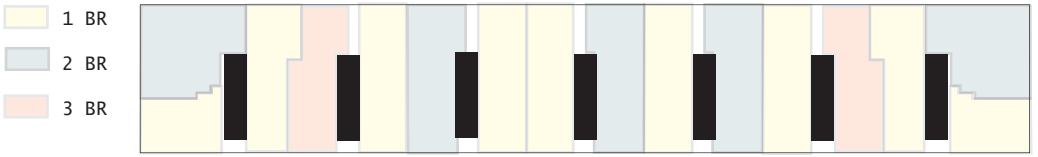
day side/ night side



Plan of typical one-bedroom apartments (French 155) 1:400



Entry ramps to point access: both elevators & stairs



typical upper floor with “nucleus of circulation”

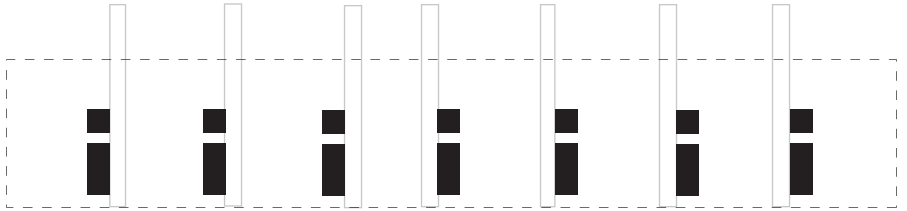
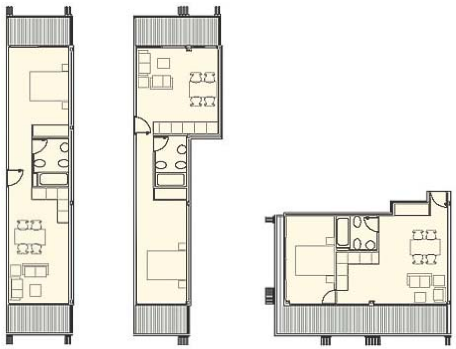


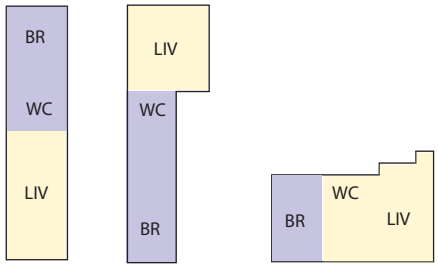
diagram of ground floor

II.

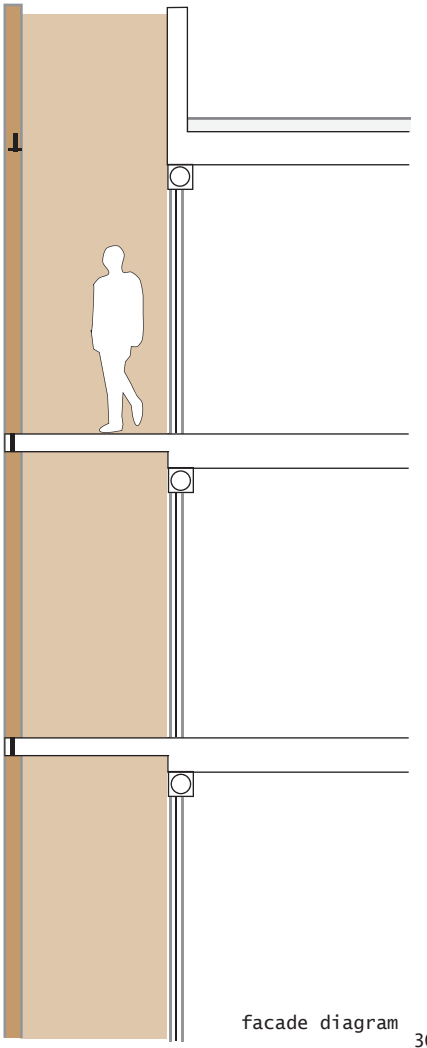
Project:	Carabanchel Housing
Architect:	FOA
Location:	Madrid, Spain
Building Type:	slab, point-access
Number of Dwellings:	88
Date:	2007
Dwelling Type:	9- 1BR, 17- 2BR, 54-3BR, 8-4BR
No. of Floors:	6
Section Type:	flats and duplexes
Materials: (louvers mounted on folding frames covering the facade)	concrete, steel, masonry, bamboo



plans of 1 BR type units 1:400

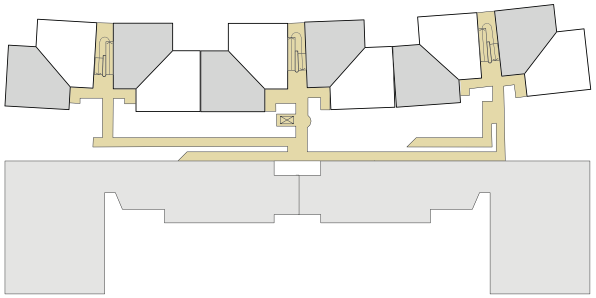


day side/ night side of typical 1BR units

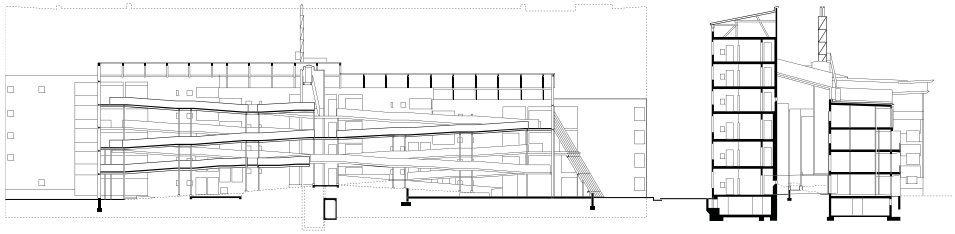


facade diagram

New building; extension of an existing structure (French 177).



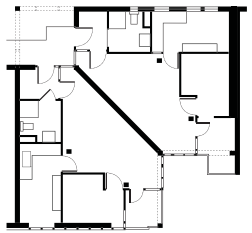
Outline plan (French 177) 1: 1000



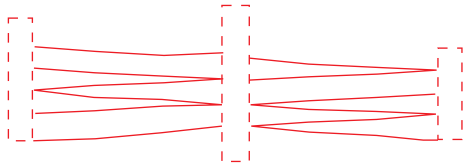
Long section through atrium & cross section (French 177)

III.

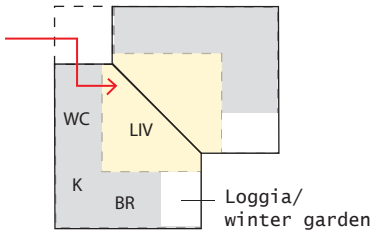
Project:	Housing for The Elderly
Architect:	Steidle + Partner
Location:	Berlin, Germany
Building Type:	slab, double-loaded, ramp and point access
Number of Dwellings:	+/- 60
Date:	1982-87
Dwelling Types:	1 BR flats
No. Floors:	5
Section Type:	flats
Materials:	brick, glass, exposed steel framework
Ammenities:	Atrium, ramps for wheelchair access



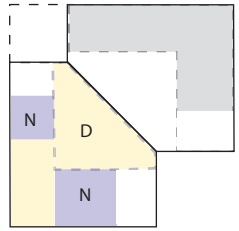
Plan of typical apartments
1:400 (French 177)



section diagram of access ramps and point landings

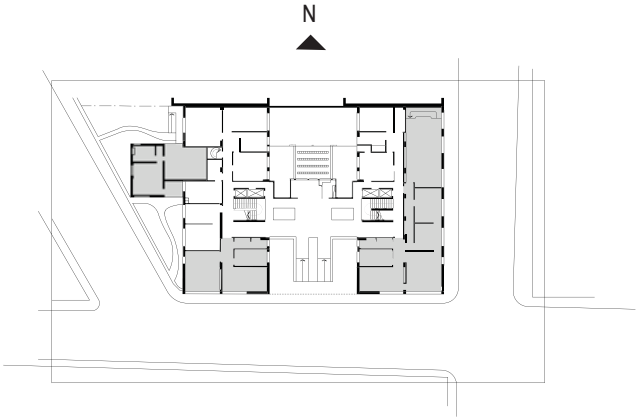


Living room as centerpoint/
separation of functional areas



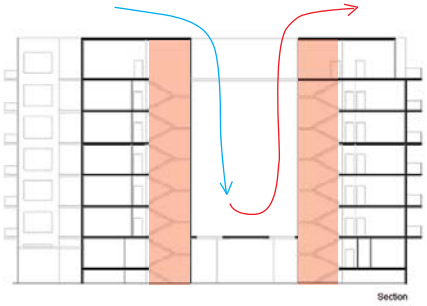
day/ night areas

Modern adaptation of traditional Italian courtyard or palazzo building.
Two parallel slabs connected by transparent balconies (unifying element).



Ground-floor plan (French 74)

Courtyard ventilation diagram:



By dividing the site into three separate bodies of which the middle is an open courtyard:

- Air ventilation is maximized, operating parallel to the adjacent building
- Main apartment blocks are dually illuminated by SW and SE/NW daylight

IV.

Project: Casa Rustici

Architect: Pietro Lingeri & Giuseppi Terragni.

Location: Milan, Italy

Building Type: 2 slabs, double-loaded, point access

Number of Dwellings: +/- 25

Date: 1936

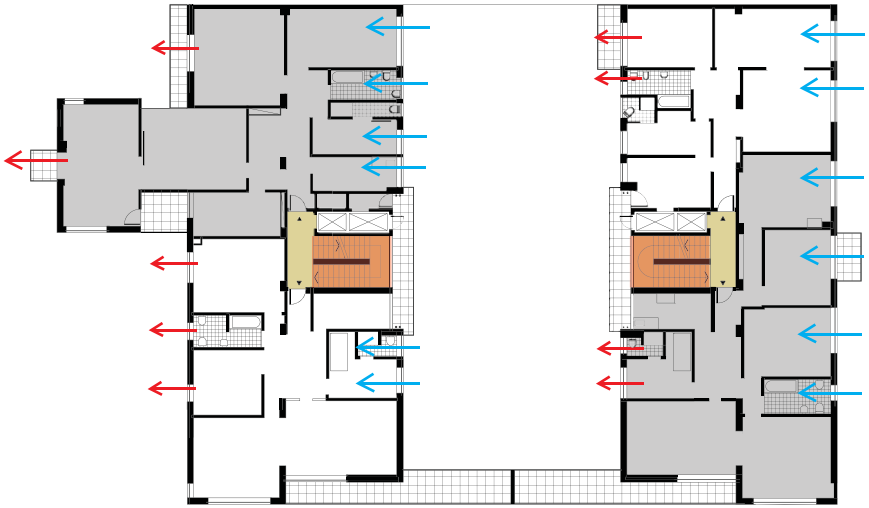
Dwelling Types: large 2-3 BR flats

No. Floors: 7

Section Type: flats

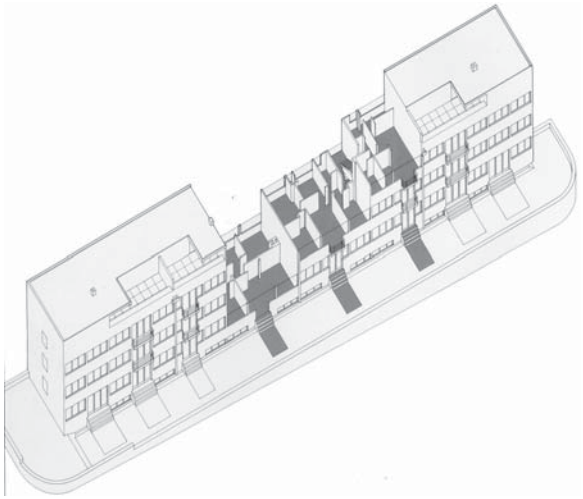
Materials: concrete block

Ammenities: ground floor offices, courtyard, storage spaces



Cross ventilation plan diagram.

Plan of fifth floor (French 75) 1: 400



Weissenhof apt. house axonometric (Sherwood 50)

V.

Project: Weissenhof Exhibition Apartments

Architect: Mies van der Rohe

Location: Stuttgart, Germany

Building Type: slab, point access

Number of Dwellings: 24

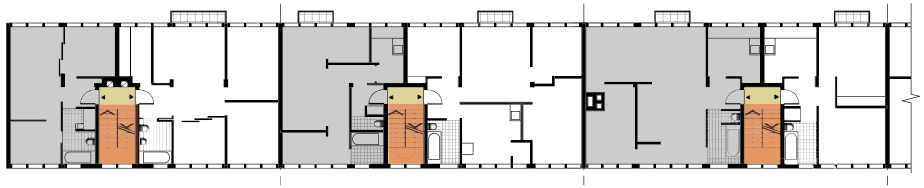
Date: 1927

Dwelling Types: 1,2,3 BR flats

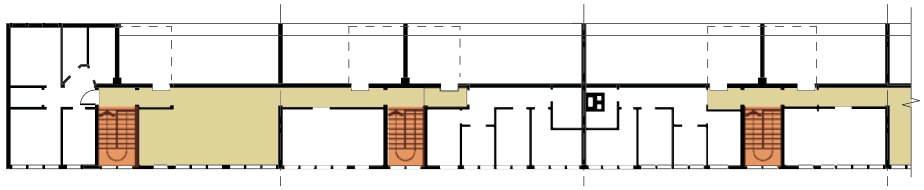
No. Floors: 4

Section Type: flats

Materials: concrete, steel frame

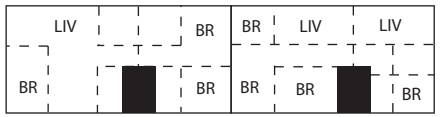


Point access. Part second floor plan 1:400

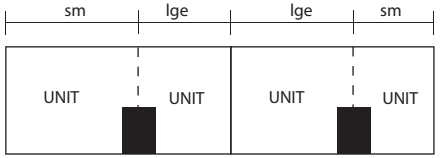


Point access. Part top floor plan 1:400

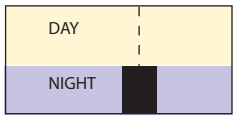
STANDARDIZATION & FLEXIBILITY



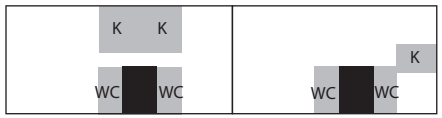
variable room configurations



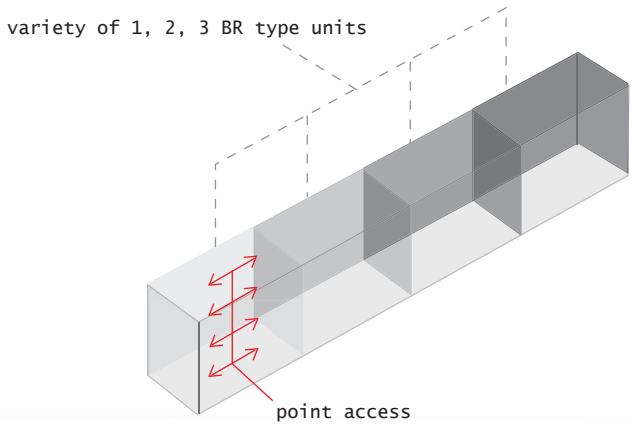
unit dimensions standard, unit proportions vary

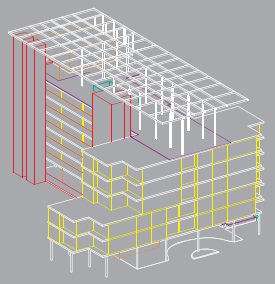


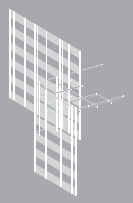
day side/ night side

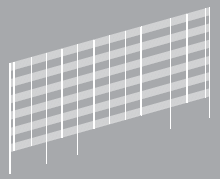


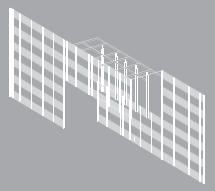
“clustering” of services

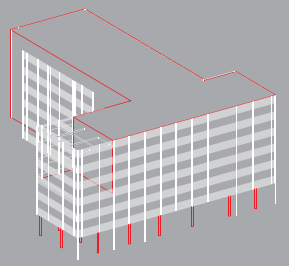


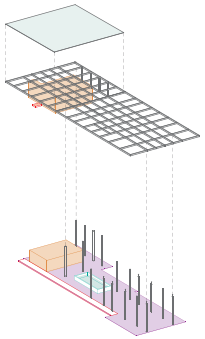












ROOF CANOPY:

shade & shelter for rain

steel structure with hanging garden space

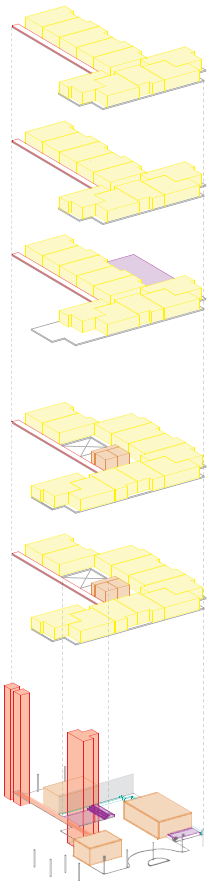
ROOFTOP AMMENITIES:

North facing library/ reading room

gym

pool

open terrace for sunbathing



MAIN RESIDENTIAL ZONE:

private residential floors 4, 5 & 6

10 units per floor

single-loaded gallery point access

private elevator

MEZZANINE LEVELS 2 & 3 :

20 residential units

1 communal laundry room

1 communal kitchen

2 business meeting rooms

atrium

single-loaded gallery point access (public elevator)

GROUND FLOOR:

entry/ port-cocher

public courtyard

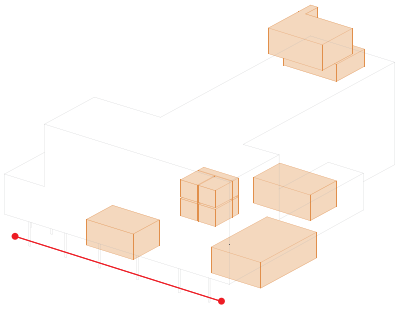
shop & marketplace

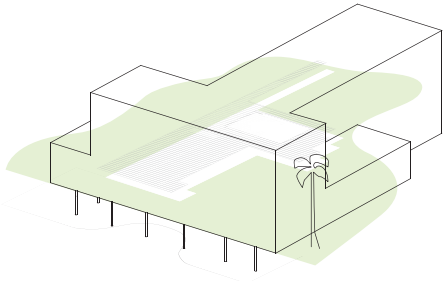
bistro

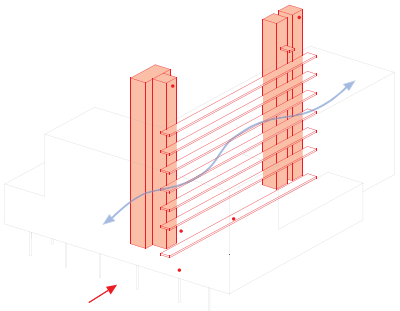
administrative offices

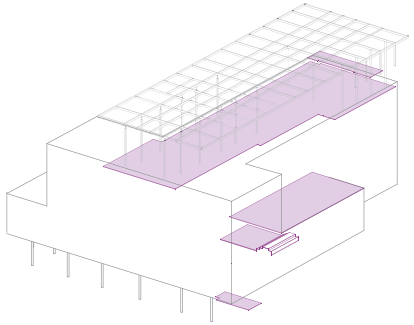
residential & service elevators

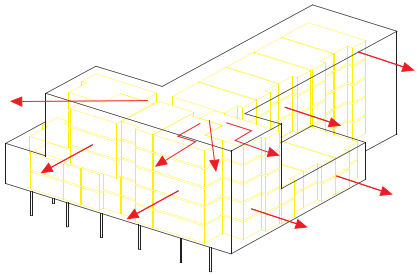
public elevator & emergency stairwells

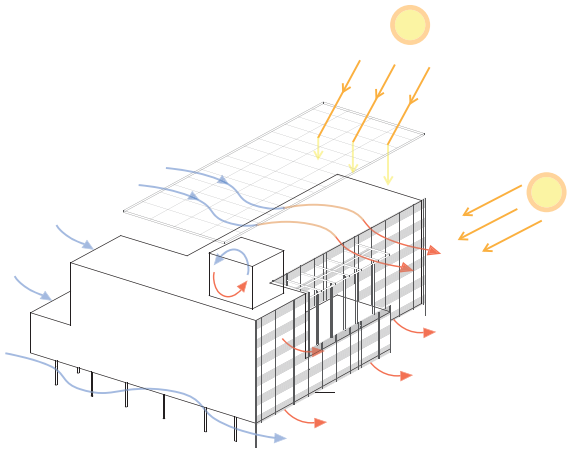




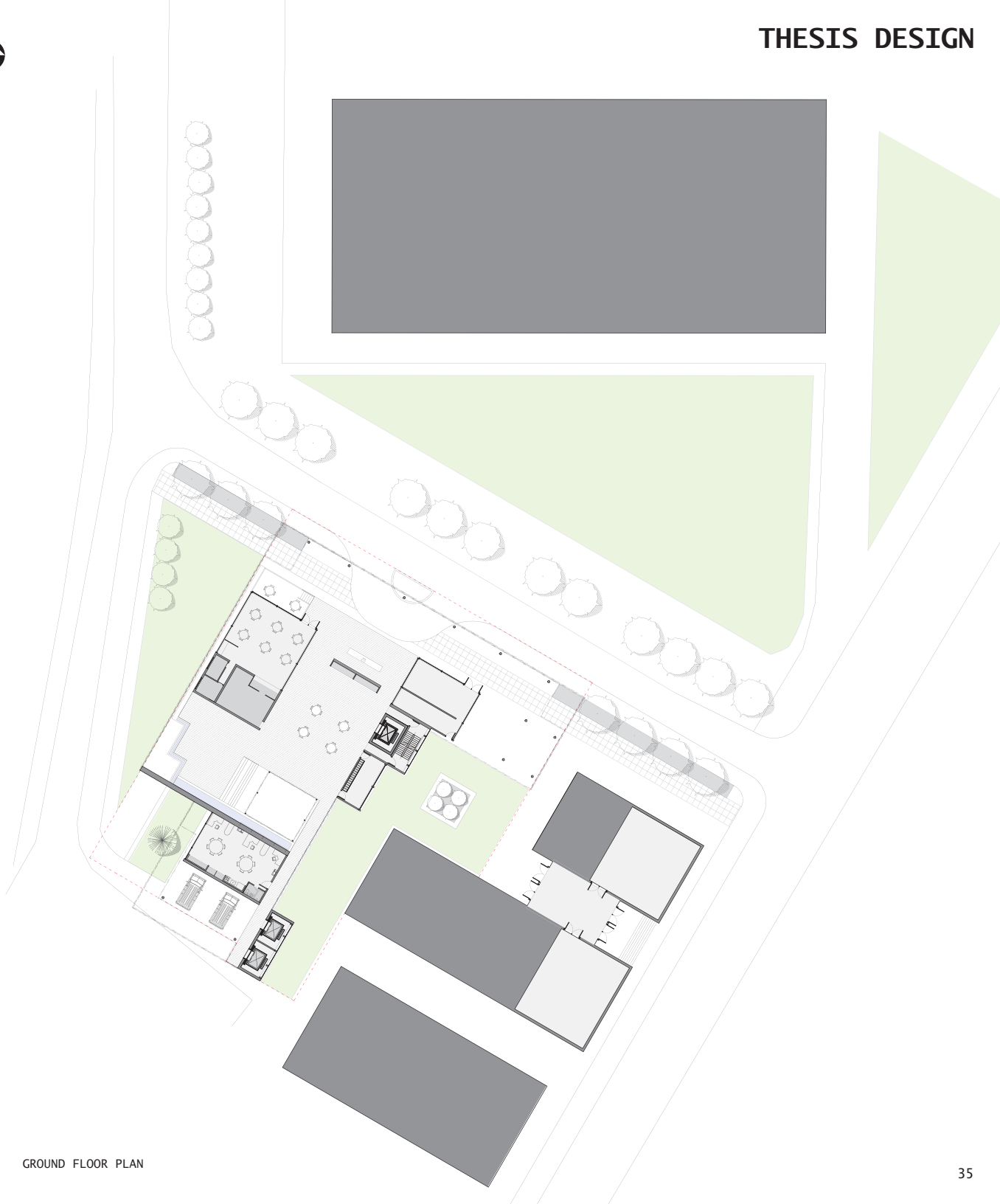




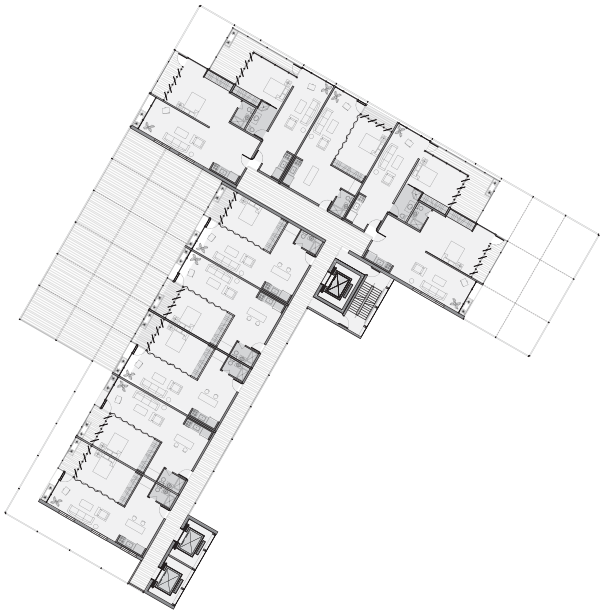




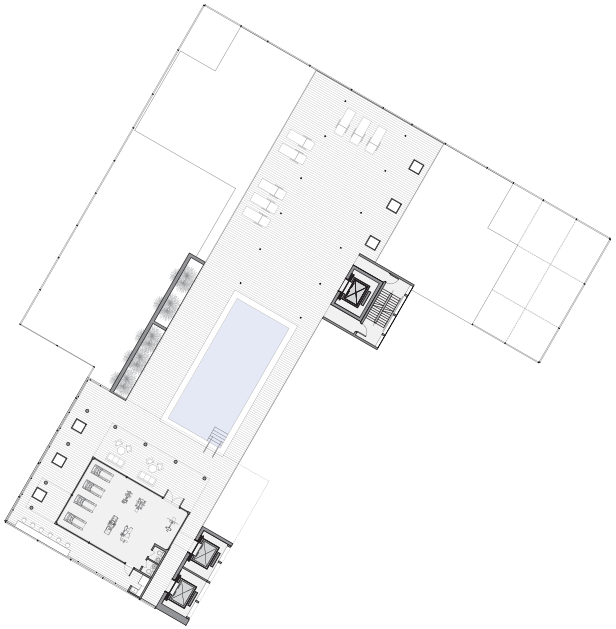
SANTURCE, PR



GROUND FLOOR PLAN

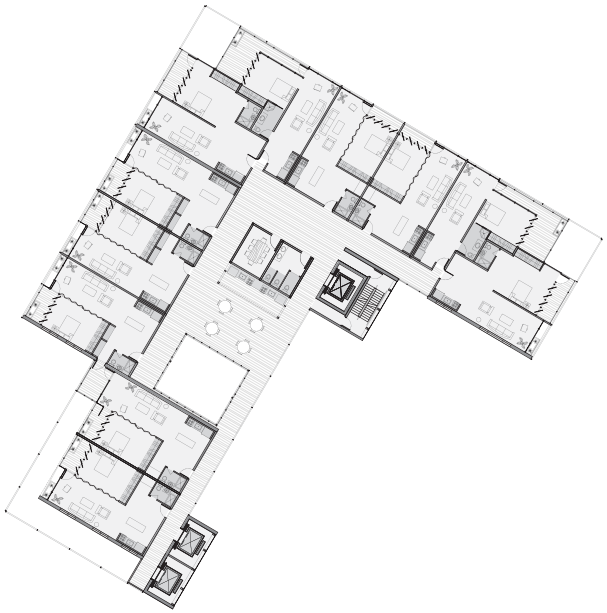


PLAN OF FLOORS 4,5,6

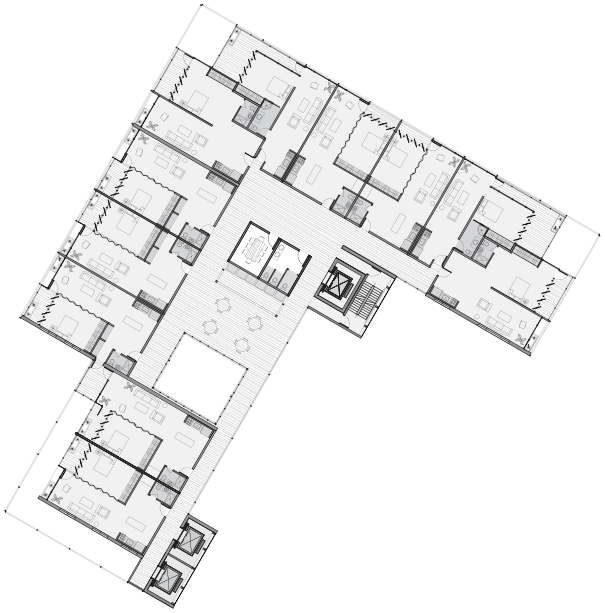


SEVENTH FLOOR (ROOF TERRACE) PLAN

LIBRARY LEVEL (8TH FLOOR) PLAN

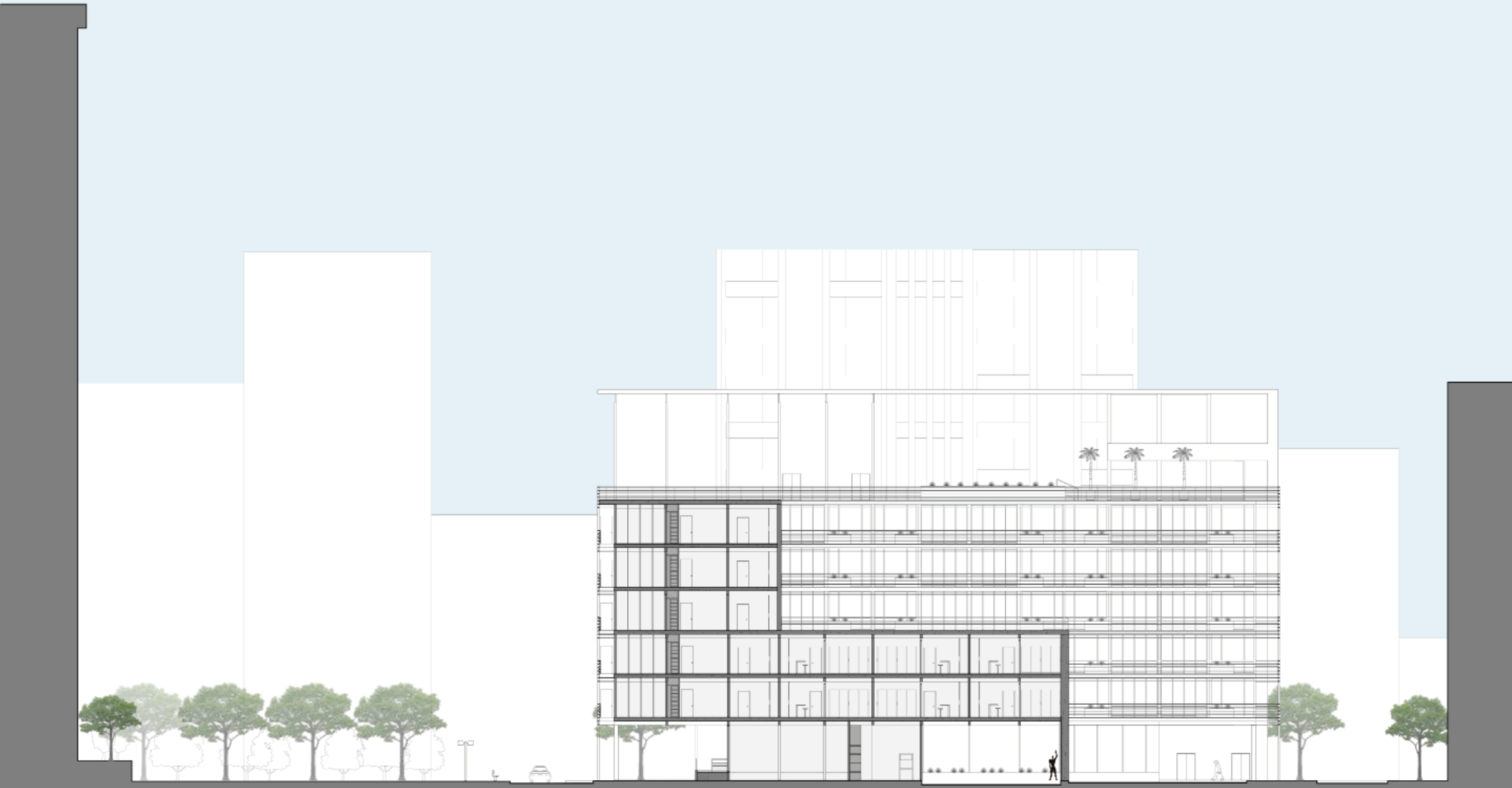


SECOND FLOOR PLAN



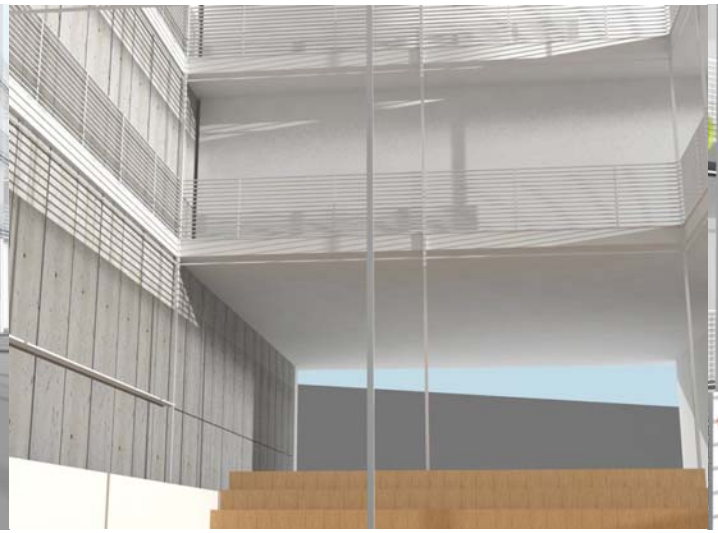
THIRD FLOOR PLAN

Transverse Section A



Longitudinal Section A

Longitudinal Section B



BIBLIOGRAPHY

"Affordable Senior Housing as an Engine for Urban Revitalization." http://www.appliedarts.net/News.htm. Michael F. Malinowski, AIA, ARCHITECT. Web. 18 Sept. 2010. <http://www.appliedarts.net/News.htm>.

2030, By. "Aging Statistics." Administration on Aging. 30 June 2010. Web. 21 Sept. 2010. <http://www.aoa.gov/aoaroot/aging_statistics/index.aspx>.

Carstens, Diane Y. Site Planning and Design for the Elderly: Issues, Guidelines, and Alternatives. New York: Van Nostrand Reinhold, 1985. Print.

Friedman, Avi. The Adaptable House: Designing omes for Change. New York: McGraw-Hill, 2002. Print.

Friedman, Avi. The Grow Home. Montréal: McGill-Queen's UP, 2001. Print.

Frederick, Matthew. "Our Experience of an Architectural Space Is Strongly Influenced by How We Arrive in It." 101 Things I Learned in Architecture School. Cambridge, MA: MIT, 2007. 10. Print.

French, Hilary. New Urban Housing. New Haven, CT: Yale UP, 2006. Print.

Gast, Klaus-Peter. Living Plans: New Concepts for Advanced Housing. Basel: Birkhäuser-Publishers for Architecture, 2005. Print.

Gili, Galfetti Gustau. Model Apartments : Experimental Domestic Cells = Pisos Piloto: Celulas Domesticas Experimentales. Barcelona: Ed. Gustavo Gili, 1997. Print.

Housing the Elderly. Lancaster: M.T.P. Construction, 1974. Print.

Jordan, Joe J. Senior Center Design: an Architect's Discussion of Facility Planning. Washington: National Council on the Aging, 1978. Print.

Jordan, Joe J. Senior Center Facilities: an Architect's Evaluation of Building Design, Equipment and Furnishings. Washington: National Council on the Aging, 1975. Print.

Kotkin, Joel. The next Hundred Million: America in 2050. New York: Penguin, 2010. Print.

Landau, Meryl D. "Baby Boomers' Next Act." U.S. News & World Report Oct. 2010. LexisNexis Academic. Web. 29 Oct. 2010.

"Le Corbusier - L' Unite D'habitation." Faculteit Bouwkunde TU/e. Web. 20 Oct. 2010. <http://www.bwk.tue.nl/architectuur/dmw/group4/le corbusier unite.htm>.

Quiles, Edwin R. "Evolucion De La Vivienda Vernacula." La Ciudad De Los Balcones. San Juan: La Editorial UPR, 2009. 91-102. Print.

"San Juan, Puerto Rico - Sun Path Diagram." Gaisma. Matti Tukiainen. Web. 1 Oct. 2010. <http://www.gaisma.com/en/location/san-juan-pr.html>.

Schneider, Friederike, Oliver Heckmann, Christian Gänshirt, and Bettina Vismann. Grundrissatlas: Wohnungsbau = Floor Plan Atlas : Housing. Second ed. Basel, Switzerland: Birkhauser, 1997. Print.

Sepúlveda-Rivera, Aníbal, and Jorge Carbonell. Cangrejos-Santurce: Historia Ilustrada De Su Desarrollo Urbano (1519-1950). Viejo San Juan, P.R.: Centro De Investigaciones CARIMAR, Oficina Estatal De Preservación Histórica, 1988. Print.

Sherwood, Roger. Modern Housing Prototypes. Cambridge, MA: Harvard UP, 1978. Print.

"The Baby Boomers in Puerto Rico: the Effect of Their Socio-demographic Characteristics on the Aging Population." Web. 29 Sept. 2010. <paa2004.princeton.edu/download.asp?submissionId=42083>.

Weal, Francis, and Francesca Weal. Housing for the Elderly: Options and Design. New York: Nichols Pub., 1988. Print.

Zeisel, John. Midrise Elevator Housing for Older People: Behavioral Criteria for Design. Cambridge, MA: Building Diagnostics, 1983. Print.

Ayers, Ian, and Quartino Daniela. Santos. 200 Outstanding Apartment Ideas. Richmond Hill, Ont.: Firefly, 2008. Print.

Jordan, Wendy Adler. Universal Design for the Home: Great Looking, Great Living Design for All Ages, Abilities, and Circumstances. Beverly, MA: Quarry, 2008. Print.

Lam, Amanda, and Amy Thomas. Convertible Houses. Salt Lake City, UT: Gibbs Smith, 2007. Print.

Toy, Maggie, ed. "The Transformable House." Architectural Design 70.4 (2000): 1-112. Print.