By Brittney Frey

You

For

You
How much stimulus is necessary for a space to meet our physical and psychological needs of a home but not limit individuality and adaptability?
Project Typology
Multi-family residential dwelling

Claim
Architectural typologies demand certain codes to ensure the health, safety, and welfare of its users. By only designing for basic human needs, the individual(s) using the provided space can uniquely adapt the surroundings.

Theoretical Premises/Unifying Idea
Designing for basic human needs allows for use that is more adaptable. Within the given parameters, the actors are responsible for the uniqueness of the space.

Project Justification
Flexibility of a space is important to society because actors respond better to different environments. By designing merely for the basic requirements (bathrooms and kitchens), buildings remain progressive instead of a product of the times.
Historically, a single dwelling often accommodated several households, and homes were inhabited by multiple generations of the same family. Homes also doubled as work spaces.

Culturally, dwelling elements vary based on ethnic differences.

Socially, home builders offer designs that fit preconceived notions of how families use space. However, a house is not an expression about society or technology; it's an expression of the people who live in it.

Generally, a household member's habits, lifestyles, and use of space change as he or she grows older. However, residents tend to regard the physical environment in which these changes occur—the home—as unchangeable. During the life cycle of a typical North American dwelling, eight families will reside in that dwelling, each with unique characteristics.
4 Forms of Adaptability - Friedman 2002

1 - Manipulation of Volumes
   Relates to the considerations that a designer, builder or occupant give to use of the entire building.

2 - Spatial Arrangement
   Looks at how the private and public spaces within the greater whole are used.

3 - Growth and Division
   Design strategies that come before, during, or after construction to permit expansion or reduction of a space.

4 - Manipulation of Subcomponents
   Talks about the elements employed in construction and use of the building.
The binary nature of classification is crude, but it does identify the tensions evident in many of examples of flexible housing.

"Soft" refers to tactics that allow a certain indeterminacy, allowing the user to adapt the plan according to their needs. The designer, in this case, works in the background.

"Hard" refers to elements that more specifically determine the way the design may be used. Here, the designer works in the foreground, determining how spaces are used over time.

Regardless of where individuals stand on the spectrum between soft and hard, it is important to address the tension between the reality and ideals of spatial occupation.

"Soft" and "Hard" Use – Schneider & Till 2007
The ability to think creatively about needs and wishes and not to preconceived notions of what a house should be is the secret to a unique space that conforms to our everyday needs. Our understanding of what a house should do gives us a prototype beside which innovation is tested. It enables us to explore everything from new construction and structural systems to experimental social groupings.
Case Studies

YERBA BUENA LOFTS

Stanley Saitowitz Office/Natoma Architects Inc.
San Francisco, California, USA
2002
MOUNTAIN DWELLINGS

Bjarke Ingles Group & Julien De Smedt
Copenhagen, Denmark
2008
RUE de NORD

Charles Henri-Tachon
Paris, France
2010
Located in the Southeast corner of Minnesota, Rochester is most commonly known for the Mayo Clinic and IBM among other things. At just around 100,000 residents and growing, it also provides many amenities and activities to locals and small town commuters. Essentially, this thesis project could be designed for any region. However, I take particular interest in this location because of the number of students fulfilling residencies at the Mayo Clinic needing temporary and potential long-term housing. Rochester also benefits because of the dynamic demographics.
Location
Rochester, MN - Historic Southwest Neighborhood

Characteristics
Filled with rich character and a mixture of single family homes as well as multi-family residential.

Amenities
Within walking distance of Downtown Rochester and the Mayo Clinic. Close to bus stops, shops, and a short distance from both major highways, Hwy 52 and Hwy 63 (Broadway). Also close to schools and parks.
Process Sketches

All streets

Streets that connect all the way through

Streets that don't connect

Streets that connect all the way through

Green = through
Red = stops

Completely surrounded by green
Green = 3  Red = 1

Shared lines

Squares

Rectangles

Shared boundaries
Program requirements sectioned by use

Stacking sections by color

Creating masses
Sun Studies With Grids

2 X 3 Sets

1 X 3 Sets
$2 \times 2$ Sets

$2 \times 2$ Sets
2 \times 3 Sets
$2 \times 2$ Sets
Mixed Sets
Floor Plan Studies

Parking

Parking Lot - 25 Spaces - 45°
- 15' from baseline
- 15' along curb
- 15' offset
- 15' backout

Parking Lot - 26 Spaces - 90°
- 18' from baseline
- 9' along curb
- 9' offset
- 24' backout
Parking Onsite
Spatial Arrangements
Circulation
Column Placement and Unit Arrangements

- 2 Bedrm: 1050 sq ft
- 3 Bedrm: 1450 sq ft
- 4 Bedrm: 1600 sq ft
- 1 Bedrm: 1116 sq ft
- 2 Bedrm: 1024 sq ft
- 3 Bedrm: 1416 sq ft
- Outdoor patio space

Units:
- (1)
- (2)
Refined Unit Arrangements
Working with 2 Story Units
Bathroom and Kitchen Arrangements
Interior Stairs, Bathrooms, and Kitchens
Interior Stairs, Bathrooms, and Kitchens
Currently
Concrete Structural Column
Interior Soffit

C Channel Sliding Track
Moveable Privacy Screen

Wood Siding
Furring Strips
Damp Proofing
Sheathing

Wood Studs with Foam Insulation
Drywall

Cast-In-Place Concrete/Secondary Structure
Wood Decking
Wide Flange/Secondary Structure
Interchangeable Windows/Doors
Interior Stair
Floor Finish
Concrete Floor Slab
Air Ducts
Air Register
Sliding Doors/Wall
Optional Bathroom
Washer/Dryer
Tankless Water Heater
Fire Rated Stair
Vertical Structural Plumbing
Optional Bathroom
Washer/Dryer
Tankless Water Heater
Standard Bathroom
Fan Coil Unit
Questions