Spring 5-4-2018

Vertical Essence

Didier Porter

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VERTICAL ESSENCE

Request for Approval of Thesis Research

Project Book Presented to:

GIOVANNI LORETO, PHD

and to the

Faculty of the Department of Architecture

College of Architecture and Construction Management

by

DIDIER M PORTER

In partial fulfillment of the requirements for the Degree

Bachelor of Architecture

Kennesaw State University

Marietta, Georgia

Spring 2018
ACKNOWLEDGMENTS

This thesis would not have been possible without a number of individuals.

Douglas Porter and Brenda Nelson-Porter
For continued encouragement during period of architecture and education.
For continued encouragement and guidance through the community members that continued to support the throughout my architecture education.

Professor Giovanni Loreto
Your counsel throughout this year played a crucial role in shaping this thesis. Thank you for continued encouragement and critical conversations.

Sitia Alkyli
For your mentorship and insight throughout my architectural education.

David and Kristen Ware
For your mentorship in architecture and guidance towards future possibilities.

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In the late 1800s, the technological advancements of the Industrial Revolution created a new typology of architecture, the high-rise. Through architecture, people could live fine and interact with one another in clouds, while experiencing the world around them. In Chicago, architects and planners adopted the concept of vertical living within the social housing sectors. Architectural densities towards densities, vertical living became underminded by poor construction and problematic living conditions. Due to the vertical voids and isolated locations, these apartments of social housing became a concentration of poverty, crime, and violence. Socially, racial and social environments moved into damaged property, condemned elevators, and barred windows became a psychological prison to the people inside. The city of Chicago hosts numerous examples of these design failures. Projects like Cabrini-Green, Stateway Gardens, Taylor Homes, etc., embodied the dangers of social housing Rehabilitation of social housing in Chicago, design criteria, such as the city’s historical and futuristic conditions, created a new typology of architecture, the high-rise. Through architecture, people could truly live and interact with one another in clouds, while experiencing the world around them. To accommodate the urbanization of people could truly live and interact with one another in clouds, while experiencing the world around them. To accommodate the urbanization of people could truly live and interact with one another in clouds, while experiencing the world around them.

1.1. Abstract

The following thesis explores the rehabilitation of social housing in Chicago, using strategies of collectivism as a vertical scale. The concept of collectivism is the following thesis explores the rehabilitation of social housing in Chicago, using strategies of collectivism as a vertical scale. The concept of collectivism is the following thesis explores the rehabilitation of social housing in Chicago, using strategies of collectivism as a vertical scale. The concept of collectivism is the following thesis explores the rehabilitation of social housing in Chicago, using strategies of collectivism as a vertical scale. The concept of collectivism is the following thesis explores the rehabilitation of social housing in Chicago, using strategies of collectivism as a vertical scale. The concept of collectivism is the following thesis explores the rehabilitation of social housing in Chicago, using strategies of collectivism as a vertical scale. 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The Minimum Dwelling
By Karel Teige

Written by Karel Teige (1900-1951), an influential figure of avant-garde modernism of the 1920s and 1930s, and published in Czech in 1932, The Minimum Dwelling is a critique on collective dwelling presage communal living experiments of the 1960s and 1970s. “The minimum dwelling has become the central problem of modern architecture and the battle cry of today’s architectural avant-garde.” (pg.1) The minimum dwelling is defined as dwelling for the subsistence minimum rather than poverty level to include those who lacked the means to provide for a minimally decent home for themselves or their families. Teige advocates a housing situation that will be truly social, human, and cultured and genuinely dedicated to the service of all the people in a new society. His solution, the concept of collective dwelling: allowing the individual dwelling cell to be complemented by a scheme of central collective facilities and by incorporating all the required economic and cultural institutions in a single coordinated housing complex. “Collective housing represents a future dwelling type, but it is not utopian.” (pg.14)


PRINCIPLES

01 The centralization and collectivization of the economic, cultural, and social factors of dwelling processes
02 The reduction of the “apartment” to an individual living cell. One room for each adult person
03 Whose content (function) is a living room and a bedroom
04 The reproduction of a single space undifferentiated dwelling on a higher level
05 Material and organization basis for socialist of life

Private

Collective and collective

KITCHEN
DINING
SALON + GLASS

SERVICES
PHYSICAL CULTURE
INDIVIDUAL LIVING CELL

COORDINATED AND COLLECTIVE

KITCHEN
DINING
HOUSE - KEEPING
BATHING
CHILDREN'S SPACE

CUTLERY BOARD
LAUNDRY
STAFF ROOM
MASTER'S ROOM

LADY'S ROOM
ETC

EROSION OF THE PRIVATE

The differentiated dwelling of the ruling class

The disconnectedness of the aerial plots seemingly conflicts with the fact that, together, they add up to a single building.

Success should be measured by the degree to which the structure frames their coexistence without interfering with their destinies.

The building becomes a stock of individual priciness.

PRINCIPLES

01 The disconnectedness of the aerial plots seemingly conflicts with the fact that, together, they add up to a single building.
02 Success should be measured by the degree to which the structure frames their coexistence without interfering with their destinies.
03 The building becomes a stock of individual priciness.

Delirious New York
By Rem Koolhaas

Written by Rem Koolhaas, principal of the Office for Metropolitan Architecture, Rotterdam. Koolhaas interprets and reinterprets the dynamic relationship between architecture and culture throughout New York’s history. The Manhattan Skyscraper is personified as a new frontier in the sky. Through the development of the staircase and elevator, any given site can now be multiplied and divided to produce proliferation of floor space. Koolhaas uses a comedic cartoon to support a theorem that describes the ideal performance of a Skyscraper: slender steel structure supports 84 horizontal planes, all the size of the original plot. Originally published in Life magazine’s “Real Estate Number” as a full-page cartoon shows conventional houses stacked on an open skyscraper frame. The skyscraper as utopian device for the production of unlimited numbers of virgin sites on a single metropolitan location.


PRINCIPLES

01 The disconnectedness of the aerial plots seemingly conflicts with the fact that, together, they add up to a single building.
02 Success should be measured by the degree to which the structure frames their coexistence without interfering with their destinies.
03 The building becomes a stock of individual priciness.
Kotlowitz illustrates the experiences of two brothers growing up in Chicago's Henery Horner Homes. The book details the difficult life children had growing up in Chicago public housing. Kotlowitz points out that the young people are robbed of their innocence by their dysfunctional social environments. Their attitudes are molded by the violence they encounter day to day and the kind of life they are born into in the projects.


Mothers manning the elevators at the Henry Horner Homes.
Ville Radieuse (Radiant City) by Le Corbusier, 1924

Urban masterplan by Le Corbusier for an ideal city. The proposed principles had an extensive influence on modern urban planning and led to the development of new high-density housing typologies. “Designed to contain effective means of transportation, as well as an abundance of green space and sunlight, Le Corbusier’s city of the future would not only provide residents with a better lifestyle, but would contribute to creating a better society.”

Built on the grounds of demolished vernacular European cities, a tabula rasa. Prefabricated and identical high-density skyscrapers, across a vast green area and arranged in a Cartesian grid.

The housing districts would contain pre-fabricated apartment buildings, known as “Unités” functioning as a function as a vertical village; accommodating 2,700 inhabitants each.

CRITIQUES
01 Innovative approach to growing density and housing shortages within cites
02 Lack of human scale and connection to its surrounding
03 High-rises floating on super-blocks
04 Annihilation of traditions by building on demolished European cities

City for a million inhabitants due to increased density, concentration, and overlapping uses. Identical five-story buildings that emphasize unity and simplicity through geometric rigor.

Below lies the commercial city and road traffic and above lies the residential city and pedestrian circulation. Based on old principles of living above your store.

HIGHRISE OF HOMES by James Wines, 1981

A theoretical project as a “vertical community” to accommodate density, conflicting desires to enjoy the cultural advantages of an urban center, without sacrificing the private home identity and garden space associated with suburbia by James Wines, a founding member in 1970 of SITE (Sculpture In The Environment) architectural group.

CRITIQUES
01 Translation of urban principles to a vertical architecture
02 Lack of human scale and connection to its surrounding
03 Levels are disconnected from each other

CRITIQUES
01 Innovative use of pods as communal dwellings creates
02 Project is radical and utopian with no real world application
03 Ideas meant to provoke debates with no application to any real world environment

Mega-structure that incorporates residences, transportation and other essential services—all movable by giant cranes.

The Plug-In City by Peter Cook | Archigram, 1964

A theoretical project combining architecture, technology and society to create a fantasy city. Based off the concept of collective living, integration of transportation and the accommodation of rapid change in the urban environment.

Movable residential units that “plug in” to a central intermodal facility, removing the need for interior transport.

Modular residential units that “plug in” to a central mechanical mega machine.

CRITIQUES
01 Innovative approach to growing density and housing shortages within cites
02 Lack of human scale and connection to its surrounding
03 Levels are disconnected from each other

CRITIQUES
01 Translation of urban principles to a vertical architecture
02 Lack of human scale and connection to its surrounding
03 Levels are disconnected from each other

Varying house styles and gardens provides a sense of the personal identity and human connection.

A central mechanical core would serve these homes and gardens.

1.4. THEORETICAL CASE STUDIES

Steel-and-concrete, eight-to-ten-story, U-shaped building frame erected in a densely populated urban area. A central mechanical core would serve these homes and gardens.

Variety of house styles and gardens provides a sense of the personal identity and human connection.

Below lies the commercial city and road traffic and above lies the residential city and pedestrian circulation. Based on old principles of living above your store.

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Built in the grounds of demolished hacienda Excelsior, in Mexico City.

Prefabricated and identical high-density skyscrapers, across a vast green area and arranged in a Cartesian grid.

The housing districts would contain pre-fabricated apartment buildings, known as “Unités” functioning as a function as a vertical village; accommodating 2,700 inhabitants each.

The housing districts would contain pre-fabricated apartment buildings, known as “Unités” functioning as a function as a vertical village; accommodating 2,700 inhabitants each.

City lie in a major metropolis due to increased density, concentration, and overlapping uses.

CRITIQUES
01 Innovative approach to growing density and housing shortages within cites
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Vertical (High rise) City by Ludwig Karl Hilberseimer, 1924

A theoretical project combining architecture, technology and society to create a fantasy city. Based off the concept of collective living, integration of transportation and the accommodation of rapid change in the urban environment.

A theoretical project combining architecture, technology and society to create a fantasy city. Based off the concept of collective living, integration of transportation and the accommodation of rapid change in the urban environment.
Vertical
Second century B.C.E Rome was a vertical city in the sense that buildings with multiple levels were already being built. High-rise apartment dwellings of the Roman world. The insulae of ancient Roman cities provided housing for the bulk of the urban populace, primarily the plebs—defined as ordinary people of lower- or middle-class.

Courtyard
Frequently the entire structure centers on an open courtyard which also serves as a light well for the lower floors. The spaces fronting on the street itself were often used for mercantile functions.

Materiality
Built in timber, mud brick, and later primitive concrete, and were prone to fire and collapse. The height of the Roman insulae to be limited to six or seven stories.

1.5. HISTORICAL CASE STUDIES

HISTORICAL CASE STUDY OF
ROMAN INSULA

ANCIENT ROME, 6TH CENTURY
The insulae, plural, insula, are Roman high-rise apartment dwellings. The insulae of ancient Roman cities provided housing for the majority of the urban populace. The term, derived as ordinary people of lower- or middle-class.

The insula (plural insulae) were Roman high-rise apartment dwellings. The insulae of ancient Roman cities provided housing for the majority of the urban population. The plebs, defined as ordinary people of lower- or middle-class status, tended to inhabit insulae.


HISTORICAL CASE STUDY OF
FUJIAN TULOU
FUJIAN CHINA, 17TH CENTURY
The tulou are earthen houses built for communal living and defensive purposes around a central open courtyard with only one entrance and window panels on the outside walls. Chinese rural dwellings espoused equality and unity as family areas were the same size and shape, and everyone lived under the same roof, sharing the communal areas.

Built for defensive purposes around a central courtyard. Courtyard represented a combination of communal living and defensive organization.

https://whc.unesco.org/en/list/1113
Shibam is one of the oldest and best examples of urban planning based on the principle of vertical construction. The city is home to intricately packed buildings ranging from four to eight stories, beginning in 300 AD but now mostly built after 1532. Streets Grid creates narrow streets for car traffic. Shibam has frequently been the subject of flooding, prompting the fortification of its outer walls.

Streets

Materiality

Stacked housing constructed of hundreds of mud bricks. Contiguous tower-houses eliminated vulnerabilities from attack, while simultaneously exhibiting the wealth of the residents.

Walled City of Shibam

SHIBAM, YEMEN, 16th century

Pruitt-Igoe

ST. LOUIS, MISSOURI, 21st century

High density project housing project to house those displaced by slum clearance by Minoru Yamasaki.

Pruitt-Igoe

Initially segregated, it was integrated into a single complex, Pruitt-Igoe. Eventually social and economic factors became its downfall.

Housing

Crime

Germicides and disinfectants meant to provide safe community spaces instead became the perdition of gangs, residents tormented the germs, the bricks. Eventually disintegrated into the hands of hungry bees of their fellow or fromVandalism.

Demolition

Pruitt-Igoe comes to represent the failure of the public housing project and the Modernism.
1.6. PRECEDENT ANALYSIS

**VIA 57 WEST | COURTSCRAPER**

NEW YORK, NY (USA)
ARCHITECT | Bjarke Ingels Group
COMP | 2016

**Residential High-rise**
Combining the density of the American skyscraper with the communal space of the European courtyard, the VIA West stands 142.3 m tall with 34 floors. It encloses a communal garden.

**Mix-Use**
Cultural and commercial programs sit on the street level and the second floor. Multiple social programs are offered as amenities such as lounges, movie room, pool, basketball court, etc.

**Courtyard**
A shared green space sits at the heart of the building, derived from the classic Copenhagen 'urban oasis.' It features 80 planted trees and lawns, and 47 species of native plant material.

**Horizontal Void Space as a Collective Courtyard.**

---

**Leeza SOHO | WORLD'S TALLEST ATRIUM**

BEIJING, CHINA
ARCHITECT | Zaha Hadid Architects
EST. | 2018

**Atrium**
The 330-meter tall atrium rises the full height of the building from two twisting sections uniting. Designed as a single volume divided into two halves.

**Plaza**
The atrium is envisioned as a new indoor public space for the city, acting as a continuation of the plaza that surrounds the building.

**Vertical**
The twisting, contorted structural skeleton weaves together two separate sections of the tower and visually fuses them. Standing 46 stories, the tower is 207 m tall.
The tower is comprised of a variety of compact housing types. Each integrated for various social groups and lifestyles in contrast to mass-production repetition.

Sky Plaza
A semi-public sky plaza is accessible through direct lift. The lookout space stands 40m above the ground.

Markthal Rotterdam
Rotterdam, The Netherlands
Architect | MVRDV
Comp 2014

Market Hall
Markthal Rotterdam is a new concept, a hybrid between market hall and housing. The ground floor under an arch of apartments.

Core
Markthal shape and height creates a unique dome atrium. An apartment building situated over a fresh food market and food shops, restaurants, and a supermarket creates coherence and connections in the neighborhood.

Apartments
40-metre arched roof that contains 228 apartments, covering the public space based on food markets in Stockholm, Barcelona and Valencia. Balconies for the apartments run along the sides of the building, with views either towards the historic Laurens Church or the River Maas.

All images credited and copyright: MVRDV architects.
Dynamic Angles

The tower façade and plinth are marked by dynamic angles. The separation and reconnection of the building and its core are the project’s highlights.

Atrium

“Expanding on the tradition of Skidmore, Owings & Merrill’s 1958 Inland Steel Building in Chicago, the tower’s division revives a classic way to define the form, form the facade in, while creating nearly open floor plates for flexible use.”

Core

The high-rise’s primary core is positioned outside the main body of the tower. The tower stands 350m tall with over 73 floors.
2.1. Public Housing Failures

**Cabrini-Green**
Near Northside
Constructed: 1942–1962

- **Urban Growth**: Housed over 14,000 people, living in mid- and high-rise apartment buildings totaling 3,607 units.
- **Scale**: High-rise apartments ranged from 15 to 25 stories.
- **Condemned**: Over the years, crime, gang violence and neglect created deplorable living conditions for the residents, and "Cabrini-Green" became synonymous with the problems associated with public housing in the United States.
- **Demolition**: In 2000 the Chicago Housing Authority (CHA) began demolishing Cabrini-Green buildings as part of an ambitious and controversial plan to transform all of the city's public housing projects; the last of the buildings was torn down in 2011.

**Stateway Gardens**
Southside, Douglas
Constructed: 1955–1958

- **Urban Growth**: Cluster of 8 high-rise buildings that would hold 1,644 dwellings.
- **Scale**: High-rise apartments ranged from 16 to 17 stories tall.
- **Condemned**: In 1960, the Chicago Housing Authority (CHA) began demolishing Stateway Gardens in part as a testament and cautionary tale in transition of the city's public housing projects. The last of the buildings was torn down in 2007.
- **Demolition**: As part of the CHA Plan for Transformation, the final tower was demolished in June 2007.
Buildings stood between 7 to 16 stories tall.

Condemned

Conditions of the building fell as elevators didn’t function, trash shoots became jammed, and the hallways became filled with rodents.

Demolition

Apart of the CHA Plan for Transformation, experiencing multiple demolitions and rehabilitations. Setting for the book There Are No Children Here: The Story of Two Boys Growing Up in the Other America.

Urban growth

These projects experienced multiple extensions phases. The first projects had a total of 1,656 units with a total of 16 buildings.

Scale

The towers stood 10-13 stories tall.

Condemned

Plague by gang violence and crime, the towers were deteriorated with trash and graffiti.

Demolition

Demolition was completed in 2006 as apart of the CHA Plan for Transformation. 750 new housing units were intended to be provided.
The towers stood 16 stories high, housing 27,000 people at its peak.

Conditions worsen in the 1960s when elevators started breaking and gangs became increasingly violent.

Demolition was completed in March 2007. The CHA plan to replace the towers with a mixed-income community of low-rise buildings.

3.2 CRITICISM OF PUBLIC HOUSING

Model of a former Green Home high-rise, built to give a 3-dimensional understanding of public housing.
Criticism 02: Open Air Galleries
Walkways were meant to function socially but became recreation areas for children. Eventually they were gated and chained for fear being too dangerous.

Criticism 03: Cell Grid
Consistent grid scheme and gated walkways produce a jail cell-like perception. This physiological associate the building and the residents inside with criminal and heinous crimes.

Green Homes

Criticism 01: Single Use
By adhering to a complete Tabula Rasa or blank state, all surrounding context is flattened. The residential tower thus is completely disconnected from its recreational park, creating a segregation between the two programs.
**Criticism 04: Entrances**

Entry ways were small and not welcoming for its residents. This made the feeling undesirable for its residents and other pedestrians.

**Criticism 05: Communal**

The communal aspects of public housing were small and unwelcoming. This created minimal interaction amongst residents.

**Criticism 06: Dwelling**

Room sizes are inadequate for the amount of residents who were living in each dwelling. This caused overcrowding within single dwelling and led to uncomfortable spaces.

**Criticism 07: Circulation**

The amount of elevators was not satisfactory for the amount of people in building and were often damaged. The stairwells were dangerous areas where crime often took place.
CHAPTER 03
DESIGN
ANALYSIS
Chicago's built environment is renowned for both its innovation and failure towards architecture and urban planning. To define the future of architecture in Chicago, one must be aware of its past. The Great Chicago Fire of 1871, was a disaster that destroyed thousands of buildings. Chicago's reconstruction was concurrent to the late 1800s technological advancements of the Industrial Revolution. The development of cast iron was that of a rapid on-site construction material that could support multistoried buildings. Following was an era of even higher development, known as the Five Ages of the Skyscraper. The first age coincided with the creation of the First Chicago School and ushered in the idea of structural frames clad with exterior wall systems and vertical transportation through passenger freight elevators. The second age sought a return to classical Greek and Roman monuments in its steel construction. The third age coincided with the creation of the Second Chicago School following World War II. Dominated by European architects, the architecture sought to further emphasize structure. The fourth age sought to replace modernist methods with ornamental elements and sculptural imagery. The fifth age found a focus towards integrated building systems with a focus on the environment. Now, Chicago is commonly referred to as the birthplace of the skyscraper.

3.1. Site Significance

Immigration in Chicago

Transit Hub

Chicago was established as a water transit hub near the banks of Lake Michigan in the 1830s. Its transportation importance began in the 1840s with the building of the Illinois and Michigan Canal which connected the Mississippi River with Lake Michigan.

The Great Chicago Fire of 1871

Disaster that destroyed thousands of buildings and killed hundreds of people. Reconstruction efforts created an opportunity to rethink design and construction in an urban environment, to consider the limits of available engineered building materials, to expand on the understanding of others, and to conceive and develop vertical transportation systems that would move people and materials within taller structures.

Cabrini–Green

As a part of the CHA redevelopment phase, hundreds of high-rise public housing were demolished. This became a notorious symbol of failed public policy, architectural hubris, and the end of modernism.

Postwar Housing

Erection of multiple high-rise public housing to accommodate the increasing population. Based on the “tower in the park” modernist principle, the buildings bore no relation to their surroundings.

Plan for Transformation

Chicago’s development plan to provide quality and safe housing to the residents of the city. The plan aimed to be implemented in the 21st century.

Demolition

In 2019, a significant portion of the Cabrini–Green public housing projects were demoted across the city. The plan was to be implemented in the 21st century.
### 3.2 SITE | MACRO SCALE ANALYSIS

Urban analytics of Chicago, Illinois. Each study reinforces the significance of Chicago as the thesis site and supports the argument for vertical social housing.

**Population**
- 2,704,958 People
- = 20,000 People
- = 760 People

**Density**
- 11,413/sq. mi. (613.827 sq. km)

**Green Infrastructure**
- Land Area | People Park | Parks Open to the Public
- 598 acres | Burnham Park
- 200 acres | Calumet Park
- 144 acres | Columbus Park
- 173 acres | Douglas Park
- 185 acres | Garfield Park
- 319 acres | Grant Park
- 207 acres | Humboldt Park
- 500 acres | Jackson Park
- 1,200 acres | Lincoln Park
- 300 acres | Marquette Park
- 24.5 acres | Millennium Park
- 372 acres | Washington Park

8.5% land area is park space open to the public.

- 02 People have adequate access to parks, as defined by a standard of 10 acres per 1,000 people.
- Increased density sets a new standard of at least 4 acres per 1,000 people.

**Chicago Housing Development**

- Collective housing is a necessity of growing density within cities. The density continues to increase, rising by 1.2% between 2010 and 2016.
- Chicago has some of the oldest and largest park district in America.
- Currently, only 49% of people have adequate access to parks, as defined by a standard of 10 acres per 1,000 people.
- Increased density sets a new standard of at least 4 acres per 1,000 people.

**Twentieth century public housing development in Chicago.** Each complex was condemned and demolished due to impoverished conditions. The following maps outline the development of the Near Northside region since the nineteenth century.

**The CTA is a regional transit system that serves 30 subways and provides up to 81% of the public transit trips in the Chicago metropolitan area.**

**Transit**

- Annual Ridership
  - Bus: 259.1 Million
  - Rail: 238.6 Million
  - Total System: 497.7 Million

- Amount in Service
  - Bus: 1,864
  - Bus Routes: 129
  - Bus Stops: 10,768
  - Rail Cars: 1,492
  - Rail Lines: 8
  - Rail Stations: 145

- Service Area
  - Area Served by CTA: 35 suburbs
  - Service Population: 3.5 Million

- 2017 Operating Budget: $1,524.2 million
- 2017 Capital Budget: $1,282.5 Million
3.3. GREAT MIGRATION

A long term movement of African Americans from the South to the Urban North. As late as 1940, all but three Chicago neighborhoods had white majority populations. Due to the large redefinition of people and the problem of housing, relocation settled in the south area of Chicago. This area was once occupied by the wealthy social classes. Public housing towers were rapidly built to mitigate this migration, but their demolition led to a displacement of minorities throughout the south-side of Chicago.

<table>
<thead>
<tr>
<th>% of African Americans</th>
<th>0 - 17.79%</th>
<th>17.80 - 59.69%</th>
<th>59.60 - 85.79%</th>
<th>85.80 - 100%</th>
</tr>
</thead>
</table>

3.4. INCOME DEVELOPMENT

The inequality of Chicago based on the regulated segregation of African Americans and other minorities. Segregation made it difficult for poor black families to gain access to higher economic activity in other parts of the city. This segregation ensured that African Americans lived near worse educational opportunities and fewer job sites than other people in Chicago.

<table>
<thead>
<tr>
<th>Median family income %</th>
<th>0 - 40%</th>
<th>45 - 60%</th>
<th>60 - 75%</th>
<th>75 - 125%</th>
<th>125 - 150%</th>
<th>150 - 200%</th>
<th>+ 200%</th>
</tr>
</thead>
</table>

map great migration
3.5. PUBLIC HOUSING DEMOGRAPHICS

Key demographics and statistics about the Chicago's public housing based on the CHA (Chicago Housing Authority) quarterly report. Statistics outline the poverty of current housing situations but its necessity based on demographics.

- **80%** of households are below the local Area Median Income (AMI) have access to public housing
- **89%** of households earn extremely low income
- **60%** of Work-Eligible residents are unemployed
- **56%** of children under the age of 21 are African American
- **43%** of women head of the household
- **40%** of African American residents

**3.6. SITE Situated**

The chosen site is a 1.87 acres parcel of land in the near north side community area of Chicago, Illinois. The chosen area was once home to the Cabrini-Green mid and high-rise public housing complexes. In accordance to the Chicago Housing Authority's (CHA) Plan for Transformation, 18,000 apartments were condemned and demolished. Although the last high-rise complex was demolished in 2011, the joint France Cabrini Homes row houses remain. The Cabrini-Green complexes were the most infamous public housing in Chicago. My thesis proposal is not only a rehabilitation of the social housing, but will pay homage to the demolition Cabrini high-rises.
Critical analysis of the site within its contextual core to develop an understanding of pre-existing conditions. From the analysis, one can acknowledge the fragmented infrastructure of the region. Commerce, recreation, and other urban destinations are displaced by large-scale green areas. Isolated areas become dominated by crime and avoided by public transportation.

3.7. Site Micro Scale Analysis

- Built environment
  - Schools
  - Parks
  - Retail
  - Shopping
  - Restaurants
  - Churches
  - Entertainment
  - Banks
  - Bridges

- Public transportation
  - Transit stations
  - MARTA stations

Disconnected fabric

Mass demolition of neglected public housing towers created isolated and vacant blocks.
4.1. DEFINING DESIGN PRINCIPLES

- S1: Atrium
- S2: Courtyard
- S3: Mix-use
- S4: Scale high rise
- S5: Visible pathways
- S6: Affordable housing
- S7: Sustainable materials
- S8: Response to local context
- S9: East-west building orientation
- S10: West

4.2. ITERATIONS

- COMMERCIAL INTEGRATION: Mix-use properties create pedestrian-friendly environments and provide access to a wide range of facilities.
- DWELLINGS UNITS: Multi-family dwellings are raised above public areas to create privacy for residents.
- GREEN INFRASTRUCTURE: Parks and green space benefit the overall quality of life by supporting social connections and building a stronger community.
- VERTICAL: Building vertically is a necessity of rising density but creates opportunity for unique spatial configurations.
4.3. INITIAL PROPOSAL
Micro apartments are based off of concepts from The Minimum Dwelling questioning what are the necessities for dwelling while still remaining comfortable. Adjustable dwellings are adaptable to growing or decreasing amount of family members.

4.4. AFFORDABLE UNITS

- 1 Bedroom Micro Apartment
  - 1 Bathroom
  - Winter Garden Extensions
  - Adjustable Bedroom and Dining Room Area
  - Optional Balcony Space or Adjustable Louvers

- 2 Bedroom Apartment
  - 2 Bathrooms
  - Guestroom or Playroom
  - Adjustable Bedroom and Dining Room Area
  - Winter Garden Extension
  - Balcony Space
  - Adjustable Louvers

- 3 Bedroom - 2 Level Apartment
  - 2 Bathrooms
  - Guestroom or Playroom
  - Adjustable Bedroom and Dining Room Area
  - Winter Garden Extension
  - Balcony Space
  - Adjustable Louvers

4.5. DETAIL SECTION
4.6. Floor Plans
4.8. Final Proposal
will rehabilitate our perception of collective living. Development with continue to strengthen proposal for a social housing tower, that experiment towards establishing a community within the tower. Further design Galia Solomonoff AIA presents a valid argument that, in the future, architects growing technology.

built environment must be unique to its setting while continue to reflect society critical regionalism and avoid the universalization of modernist architecture. The architectural scale. Architects and urban planners must follow the principles of production at an urban scale. While I do agree that the housing crises should be viewed at an urban scale, I conclude that a solution must be presented at an direction of this thesis, I will continue to challenge the derived solution. In the housing failure, I believe we must rehabilitate this idea. While I am satisfied with public housing. Rather than condemning vertical living as the source of public

This thesis aims to address the state of social housing in the context of Chicago Illinois. Dwelling must be understood as both an action and a place. As long as society continues to grow, architects must challenge the notion of social housing. As noted in former public housing proposal, high-rise buildings were mass produced at an urban scale. Which do agree that the housing crises should be viewed at an urban scale, I conclude that a solution must be presented at an urban scale. The built environment must be unique to its setting while continue to reflect evolving technology.

Galia Solomonoff AIA presents a solid argument that, in the future, architects will build vertically to accommodate the crowd. I view this trend as an absolute opportunity towards establishing a community within the tower. Further design development will continue to strengthen a proposal for a social housing tower that will rehabilitate our perceptions of collective living.