A VILLAGE WITHIN THE CITY

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CABRINI GREEN - RESEARCH PROJECT

During my time as an Architectural Fellow at Myefski Architects, I had the opportunity to explore my interest in social housing development and learn from Myefski's residential projects. Aside from working on the firm's projects, I researched Chicago's social housing history. My interest was caught by one of the most notorious social housing projects in the city, Cabrini Green.

IMAGE 1. OUTSIDE A HIGH-RISE OF CABRINI GREEN. JOHN H. WHITE, 1981.

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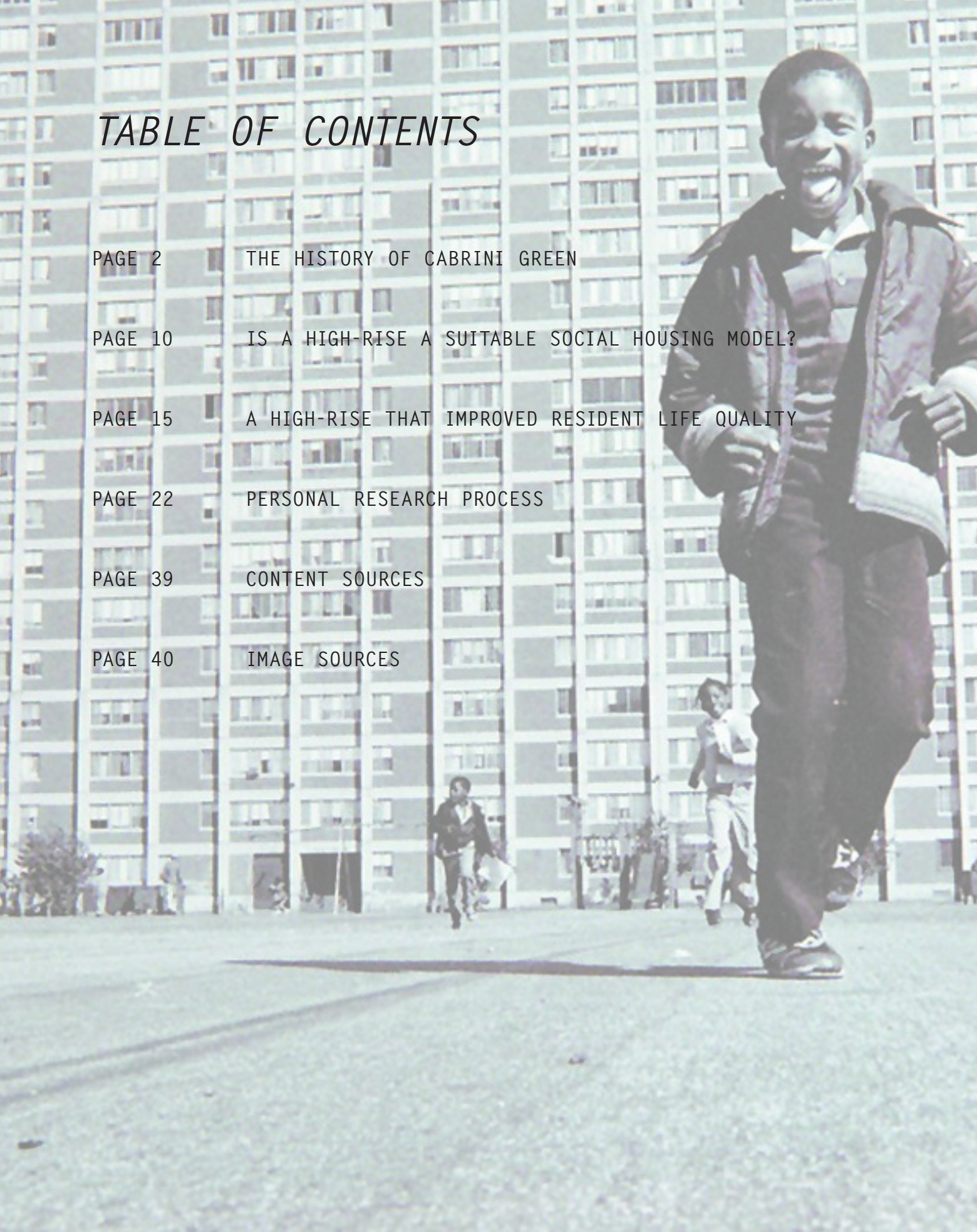
THE HISTORY OF CABRINI GREEN

Cabrini Green is situated next to affluent neighborhoods in Chicago (Old Town, Gold Coast, and Lincoln Park) and only one mile from downtown. Historically, Cabrini Green has been labeled as a "slum" or "ghetto" since the first settlement back in the 1850's by Irish workers. The name "Little Hell" originated from the gas house that was located at Crosby and Hobbie Street that illuminated the sky at night. This name then became a reference of the poor and overcrowded living conditions.
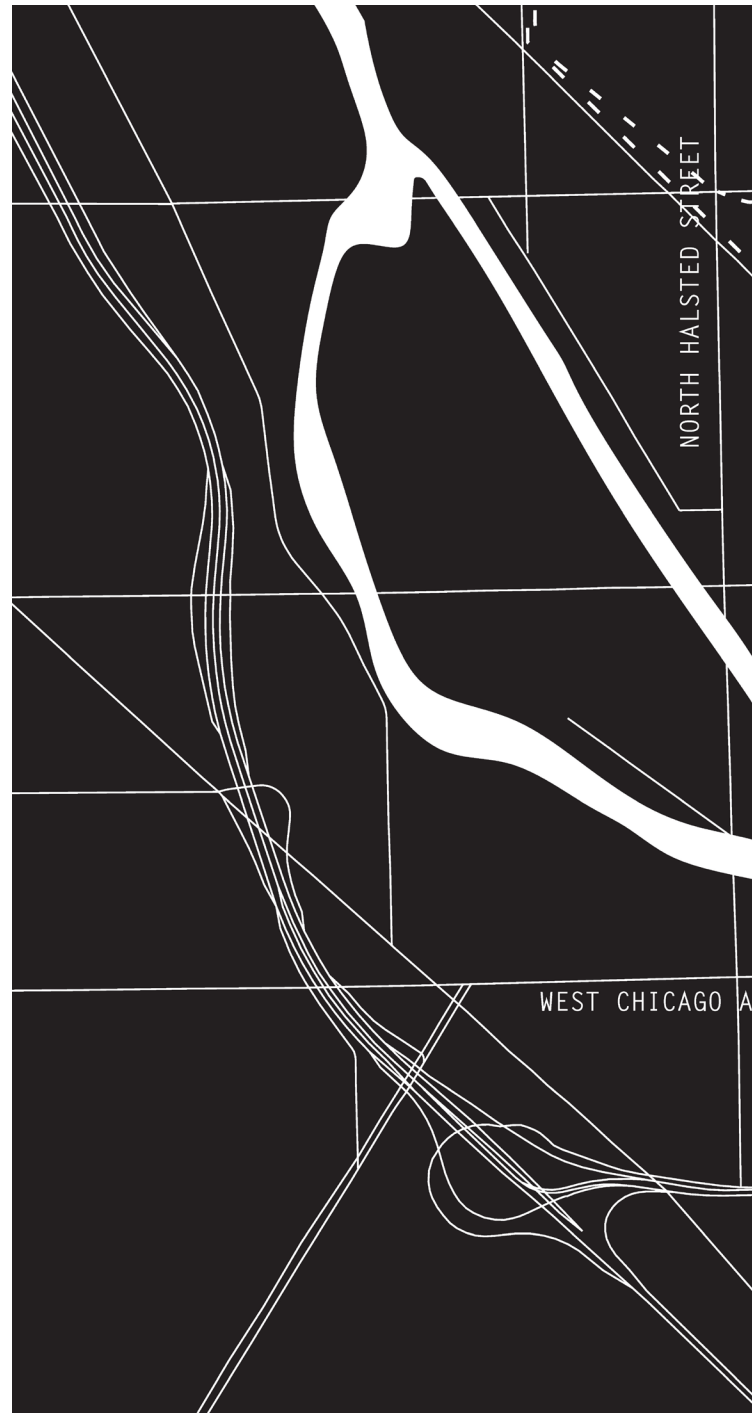

IMAGE 2. MAPPING OF CABRINI GREEN. DRAWN BY AUTHOR, 2018.

NORTH AVENUE BEACH

SEDGWICK

NORTH LASALLE BOULEVARD

CLARK/DIVISION

OAK STREET BEACH

WEST DIVISION STREET

CABRINI GREEN

NORTH STATE STREET

NORTH LAKE SHORE DRIVE

VENUE

CHICAGO

NEW ORLEANS STREET

CHICAGO

NORTH MICHIGAN AVENUE

GRAND

IMAGE 3. CABRINI GREEN BEFORE DEMOLITION.
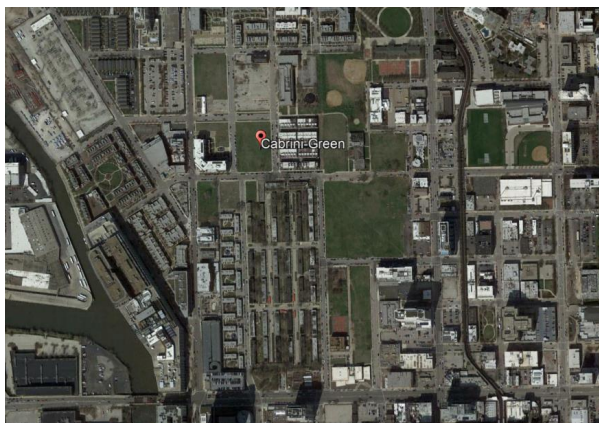HISTORICAL IMAGE VIA GOOGLE EARTH.

IMAGE 4. CABRINI GREEN AFTER DEMOLITION.
GOOGLE EARTH, 2018.

After World War II, many African-Americans moved from the south side of Chicago to Cabrini Green and the area became crowded. To solve these problems, the Chicago Housing Authority (CHA) put up public housing projects consisting of massive super blocks of high-rise apartments.

These concrete buildings isolated Cabrini Green from the rest of the neighborhood and created a dense concentration of poverty.

For many years, Cabrini Green was known for gangs, drugs, and illegal activities until the U.S. Department of Housing and Urban Development took control in 1995 and started the transformation of Cabrini Green by demolishing all of the high-rise apartments. After this, they replaced the former buildings with mixed-income residential buildings. However, some of the projects' original row houses still remain on the site while most of the area is now vacant.

IMAGE 5. WITH A LIMITED BUDGET ON THEIR HANDS, CHA DESIGNED A HIGH-RISE SPREADING ACROSS THE AREA, WHICH ISOLATED THE INHABITANTS FROM THE SURROUNDING CONTEXT. THE PICTURE SHOWS ONE OF THE HIGH-RISES BEFORE DEMOLITION. ERIC ALLIX ROGERS, 2007.

IMAGE 6. CABRINI GREEN PUBLIC HOUSING PROJECT AND MID-PHOTO HIGH-RISES AGAINST THE CHICAGO SKYLINE IN MAY 1996. BETH A. KEISER, 1996.

IMAGE 7. ABANDONED COURTYARDS OF THE FRANCES CABRINI GREEN ROWHOUSES ALONG NORTH HUDSON AVENUE. MOST OF THE UNITS ARE NOW EMPTY, BUT SOME OF THE UNITS ARE STILL OWNED BY FORMER RESIDENTS OF CABRINI GREEN. MEG ANDERSON, 2015.

IMAGE 8. SUBURBAN STRUCTURE. LEVITTOWN PUBLIC LIBRARY, 1948.

Instead of buying cheaper land parcels outside of the city's perimeter, the CHA scored political points by rebuilding in the existing slums and containing certain areas, which ultimately separated African – Americans from the rest of the city. Rebuilding on the relatively expensive site left the CHA with less money for construction. The cheapest way to accommodate for this was to build a high-rise spreading across the area. The CHA charged rent based on income and hoped that the project would attract working-class families. At the same time, the federal government was betting on the suburbs, because federal subsidies for home mortgages drew working families to the suburbs. There, the highway system made the commute to the downtown much easier. Unable to attract economically mobile residents, the CHA had less money to maintain the buildings. As a result, almost all of the buildings were in bad condition.

IS A HIGH-RISE A SUITABLE SOCIAL HOUSING MODEL?

LE CORBUSIER - THE RADIANT CITY

The Cabrini Green project started in the 1940´s, around 20 years after Le Corbusier introduced the Radiant City. The Radiant City is a concept depicting how a functional city should look. After World War II, his vision was to house millions of people in a tower and clean up the building and urban fabric that was destroyed from years past. The city was to operate as a "living machine". Different areas would be designated for commercial, business, leisure, and residential purposes; a transportation deck in the city center would connect city dwellers via underground trains to housing districts consisting of towering premade buildings called "Unités."
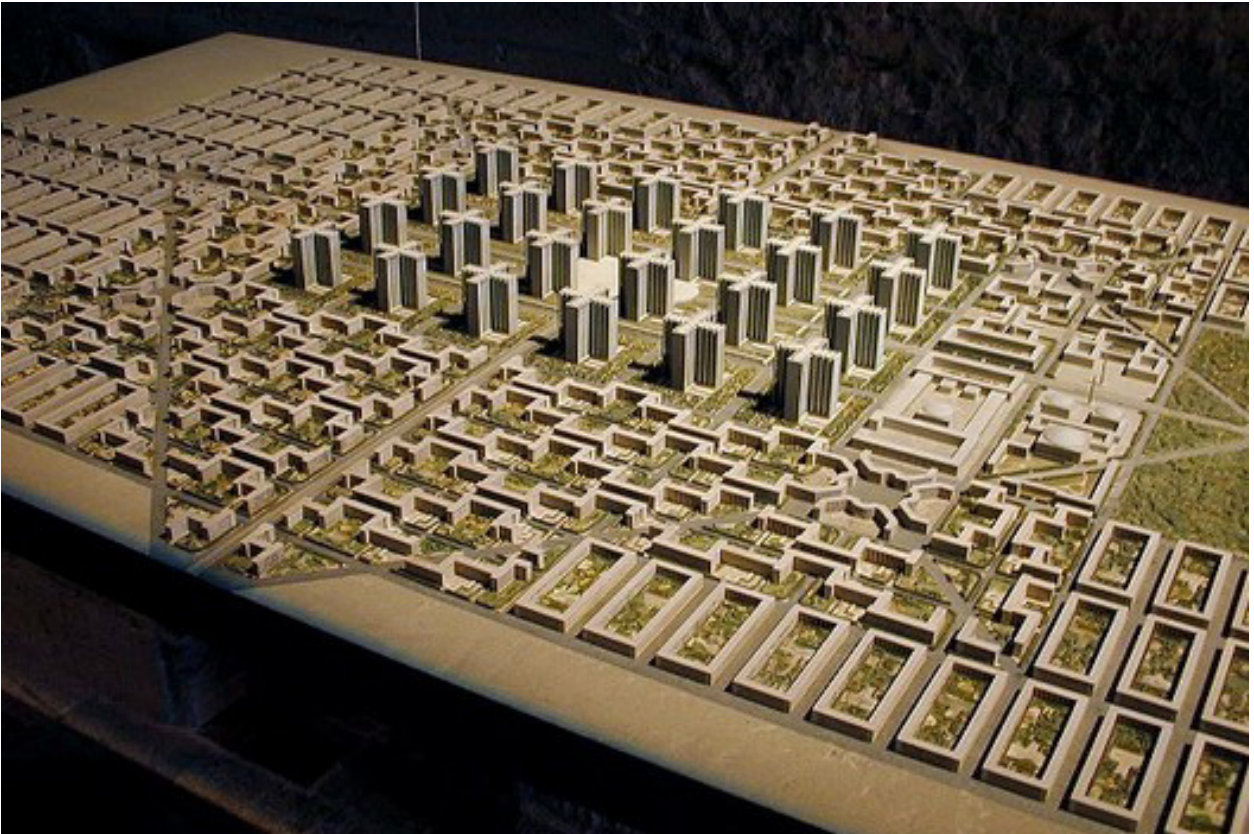
IMAGE 9. THE RADIANT CITY MODEL BY LE CORBUSIER.

His proposal was never built, but the basic concept had big influence on modern architecture. A lot of critiques were drawn on the lack of public space and a general disregard on livability. Many public housing developments that were inspired by the Radiant City concept now have high levels of poverty and crime.

IMAGE 10. STILL FROM 'HIGH-RISE'. RECORDED PICTURE COMPANY, 2015.

HIGH-RISE

In the 1975 science fiction novel 'High-Rise', James Graham Ballard addressed his perspective on how living in a high-rise building can affect human mentality. One of the main things that Bollard focused on was how high-rise buildings are disconnected from the surrounding world. Humans, as a species, are clearly social. Traditionally, they depend on cooperation and solidarity - in modern society this is weakened in favor of individualization.

IMAGE 11. TOM HIDDLESTON AS DR. RICHARD LAING IN 'HIGH-RISE'. RECORDED PICTURE COMPANY, 2015.

Ballard's novel and its 2015 film adaptation shows the high-rise as the symbol of individualization that disconnects us from the community, forcing us to live in a way that is against our nature.

> "He was constantly aware of the immense weight of concrete stacked above him, and the sense that his body was the focus of the lines of force running through the building, almost as if Anthony Royal had deliberately designed his body to be held within their grip."
>
> — Ballard 'High Rise", 1975

IMAGE 12. AN INHABITANT OF CABRINI GREEN STANDING INSIDE OF THE FENCING FACADE. AP, 2010.

A HIGH-RISE THAT IMPROVED RESIDENT LIFE QUALITY

IMAGE 13. TORRE DAVID IN CARACAS. U-TT, IWAN BAAN, 2012.

In contrast to Ballard's perception of high-rises, there is an example of how high-rise buildings actually improved the living condition for inhabitants. In 1994, when the bank crisis hit Venezuela, a 45-story tower office building known as 'Torre David' stopped construction and the building fell into government ownership.

In 2007, due to heavy erosion, many people lost their homes and moved into the building with no official permission. Instead of becoming a slum, it developed into a well-functioning vertical community by converting commercial floor space into residential units.

This community contained much more than apartments; amenities like grocery stores, daycare, beauty salons, and administration were also implemented by residents. The building turned into a vertical city with an organized system. Without elevators inside of the building, the only way of navigating throughout the structure was the stairwell located in the middle of the building. The stairwell eventually became a meeting place for residents and the core of the Torre David community.

As their economic situation improved, the inhabitants built and decorated inside of their apartments to define their individual space. As a result, a unique collection of spaces took shape throughout the building as residents customized their apartments to fit their personal needs and style.

IMAGE 14. PETARE SLUM IN CARACAS. U-TT, IWAN BAAN, 2012.
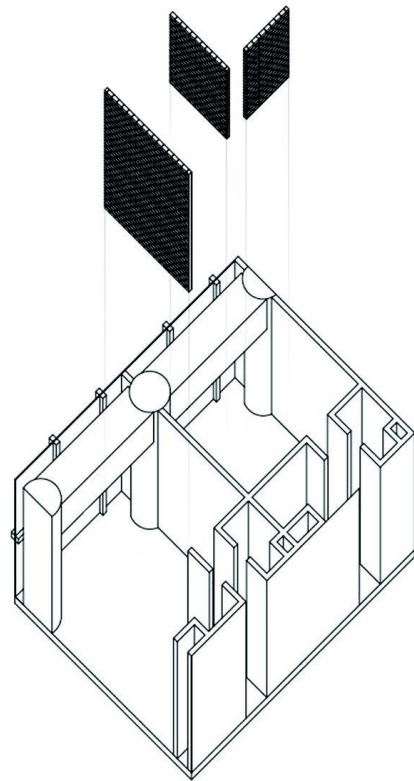
IMAGE 15. AXONOMETRIC DRAWING OF UNIT IN TORRE DAVID WITH ADDED BRICK WALLS CONSTRUCTED BY RESIDENTS. DRAWN BY AUTHOR, 2018.
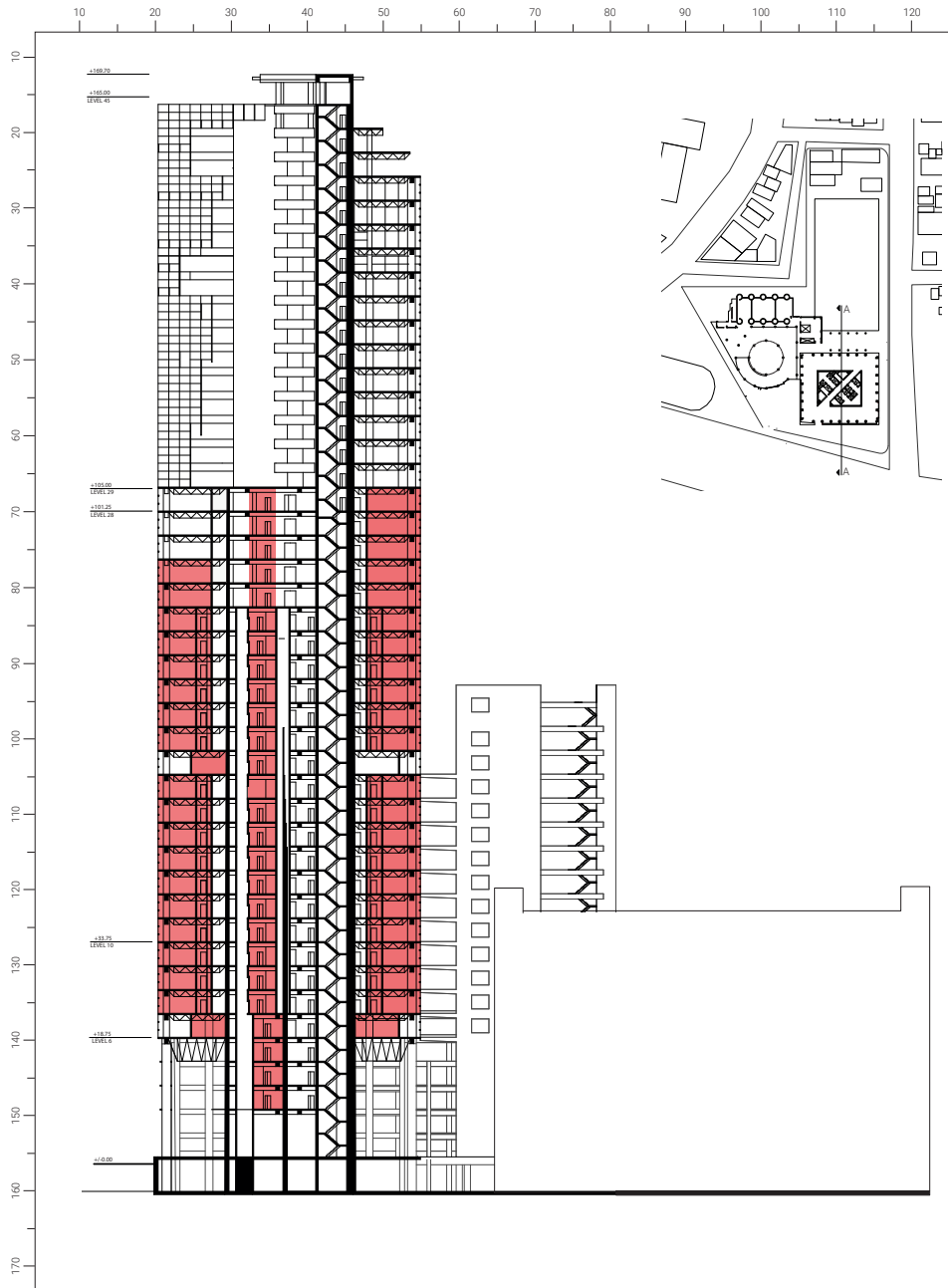
IMAGE 16. TORRE DAVID SECTION A - RED INDICATING OCCUPIED AREAS, 1:250.
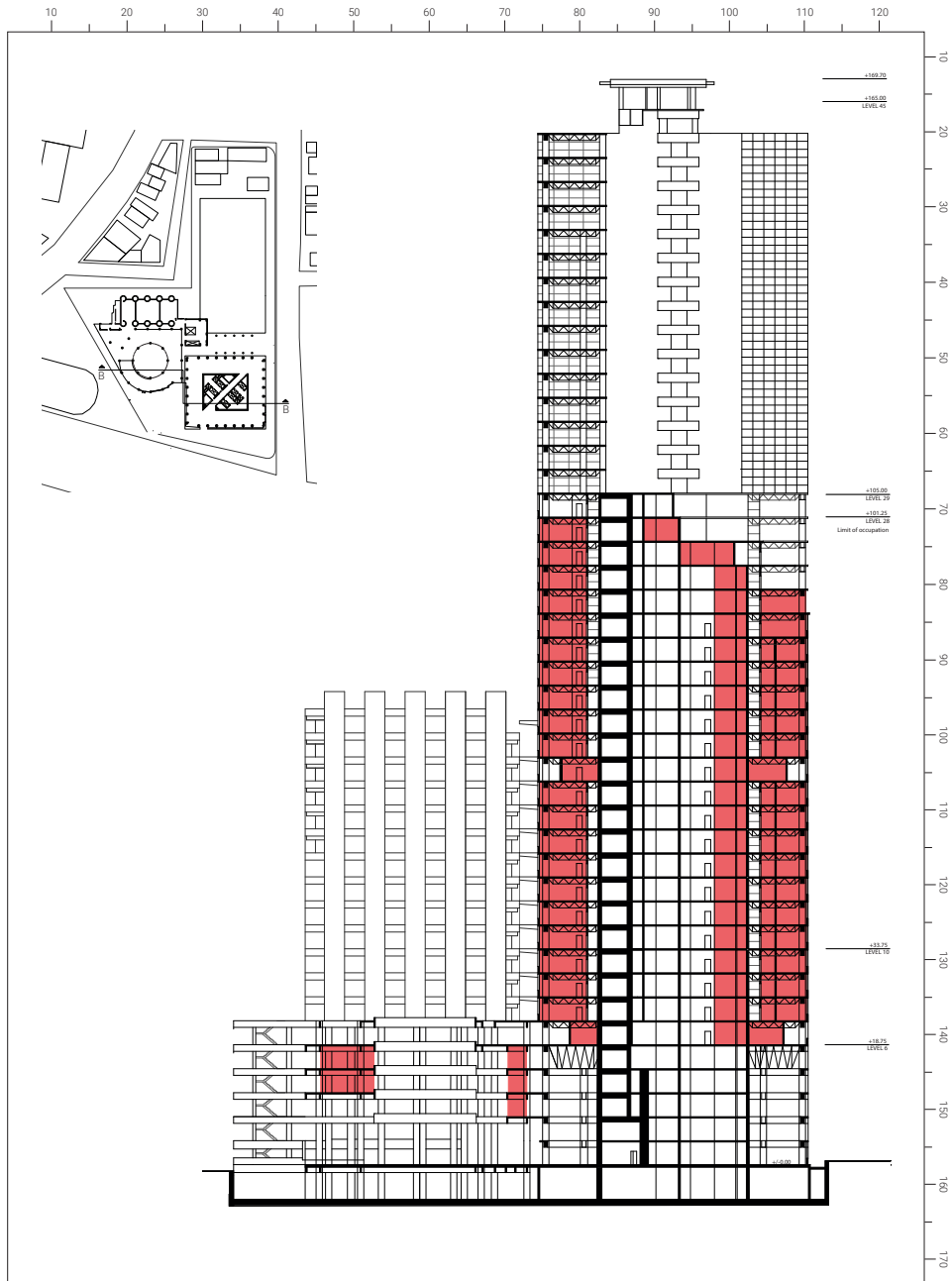DRAWN BY AUTHOR, 2018.

IMAGE 17. TORRE DAVID SECTION B - RED INDICATING OCCUPIED AREAS, 1:250.
DRAWN BY AUTHOR, 2018.

INSIDE THE
TORRE DAVID

IMAGE 18. SOME OF THE INHABITANTS BEGAN TO RUN THEIR OWN BUSINESSES SUCH AS A BEAUTY SALON, TAILOR, AND DAYCARE. U-TT, IWAN BAAN, 2012.

IMAGE 19. SMALL SUPERMARKET OPERATED BY THE INHABITANTS. U-TT, IWAN BAAN, 2012.

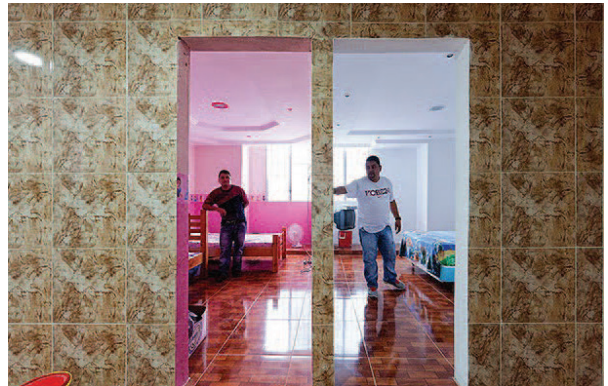IMAGE 20. AS THE ECONOMY IMPROVED, THE INHABITANTS BEGAN TO IMPROVE THEIR LIVING SPACES TO SUIT THEIR NEEDS. U-TT, IWAN BAAN,

IMAGE 21. COMMON SPACE. U-TT, IWAN BAAN, 2012.

ELEMENTAL BY ALEJANDRO ARAVERA

Another example of a resident-built community is the ELEMENTAL project by Alejandro Aravena. Instead of building a full house, the architect designed a half house consisting of basic necessities such as a kitchen, bedroom, living room, and bathroom. With this model, the architect was able to house more families than with the typical full-size model. As time goes by and their financial situation improves, the inhabitants are allowed to expand the "other half" of their house to fit their needs. This not only increases the value of their home, but also the value of their neighborhood.

IMAGE 22. HALF-BUILT HOUSING PROJECT BY ALEJANDRO ARAVERA. CHRISTOBAL PALMA, 2009.
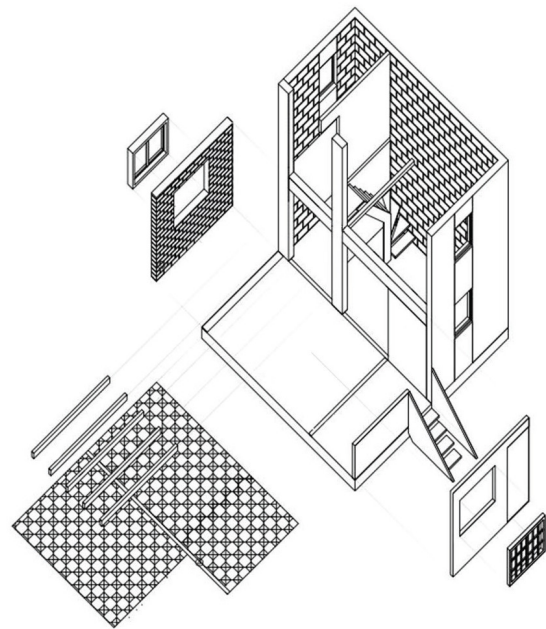

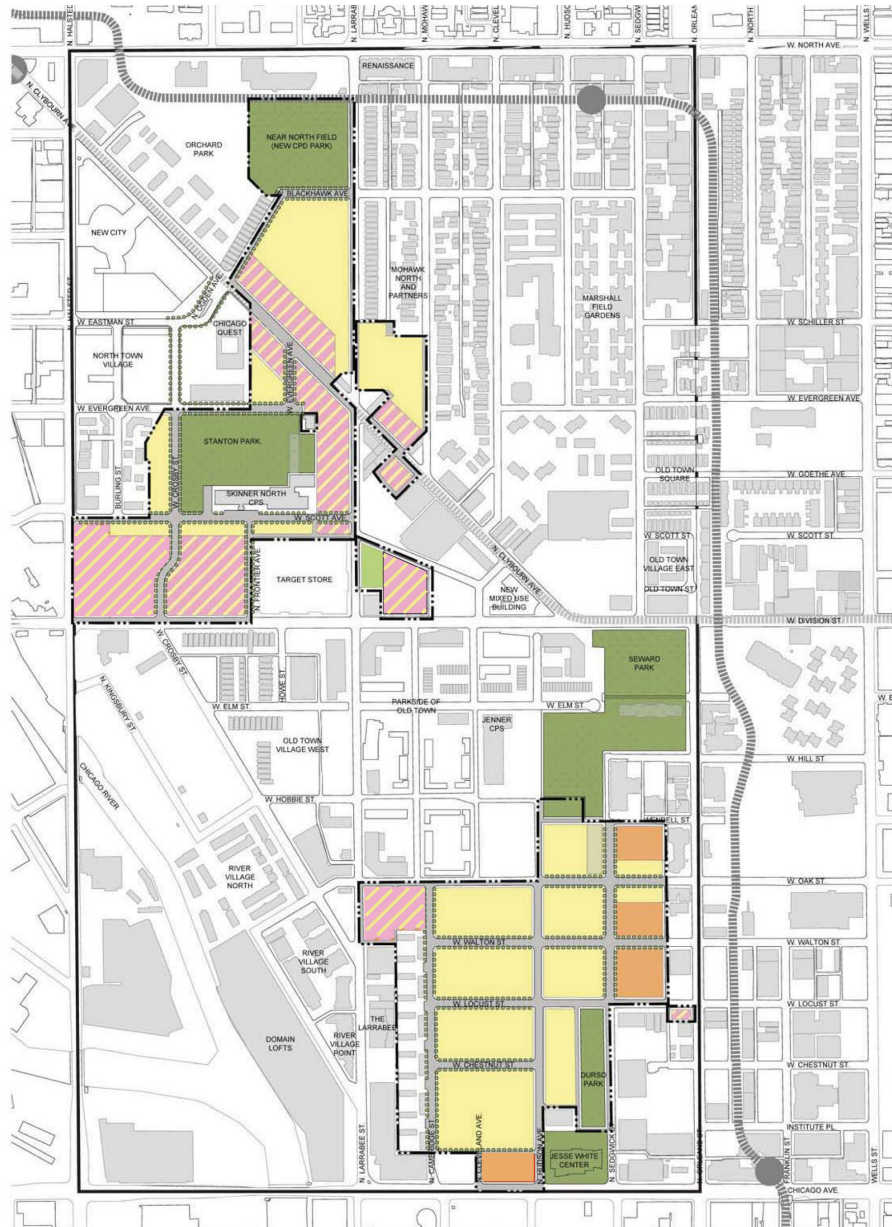IMAGE 23. AXONOMETRIC DRAWING OF A HALF-BUILT HOUSE. DRAWN BY AUTHOR, 2018.

PERSONAL RESEARCH PROGRESS

NEW DEVELOPMENT PLAN FOR CABRINI GREEN

Seven years ago, the CHA launched a development plan for the Cabrini Green site. Opposite to their past approach, CHA proposed low-rise structures as well as mixed-use building. The main goal was to create a community and reconnect the area to the city.

In order to continue the goal of developing a diverse, mixed-income community, The Plan for Transformation program by CHA proposed a development that consists of low- and mid-rise buildings that cater to a variety of income levels. To achieve this, it was proposed that half of the units would be market-rate, 30 percent would be public housing, and 20 percent would be partially subsidized. The idea of creating an affordable, yet desirable "village within the city", is my primary goal. Developments and programs created by private firms and the CHA are a great start. Using them as inspiration, my project takes these plans a step further by reconnecting Cabrini Green to the rest of the city.

URBAN **GREEN** TEAM

URBAN WORKS, LTD
OH COMMUNITY PARTNERS, CNT ENERGY, DEVELOPMENT
MANAGEMENT ASSOCIATES, AMERICAN MARKETING
SERVICES, BAUER LATOZA STUDIO, FARR & ASSOCIATES

CHA
CHICAGO HOUSING
AUTHORITY

DRAFT DEVELOPMENT ZONE PLAN

100'   500'
0   200'

FUTURE

LEGEND:

──── NNRI Boundary

─··─ Project boundary

░░ Residential - low density (1 - 4 stories)

░░ Residential - medium density (5 - 7 stories)

▨▨ Mixed use: commercial with residential above (1 - 7 stories)

▨ Public Parks (Chicago Park District)

▨ Other open space (privately maintained / owned)

▨▨ Recommended modified, rededicated and new streets

▨ Existing Building

▱ Proposed / Future building

IMAGE 24. DEVELOPMENT PLAN FOR CABRINI GREEN. CHICAGO HOUSING AUTHORITY, 2015.

PROCESS

The CHA Development Plan presented criteria aimed to help Cabrini Green become a better neighborhood. Inspired by this plan and its criteria, I established four guidelines that I used in the next phase of my research project:

1. LOCAL BUSINESS

Opportunities for job creation and commercial space.

2. FLEXIBILITY

Variety of housing styles to accommodate a diverse community for all income levels and family sizes.

3. ACCESSIBILITY

Open up the site for a pedestrian and bike path and provide new green space that adapts to the building and community.

4. CONNECTION

Link Cabrini Green to the surrounding and neighborhood by connecting streets to the existing grid.

With these guidelines in mind, I explored the idea of creating a local community within the big city — specifically for the area of rowhouses between North Hudson and North Larrabee Street, which currently have a strict grid system. These traditional rowhouses would be replaced with housing units that create a diverse movement throughout the site and allow the residents to socialize, which would ultimately
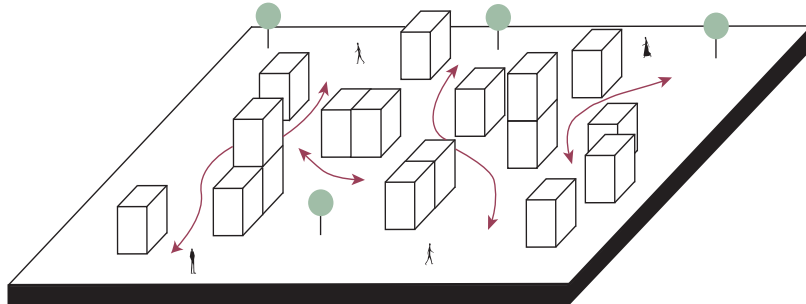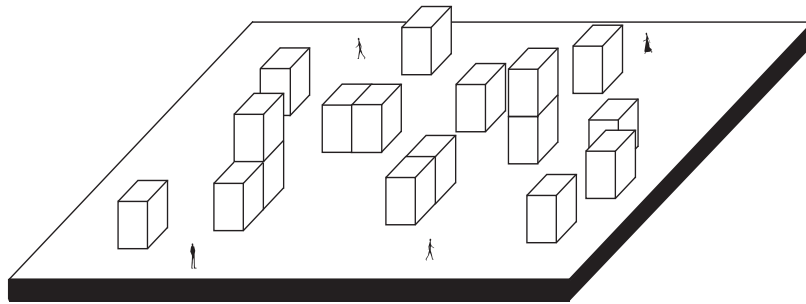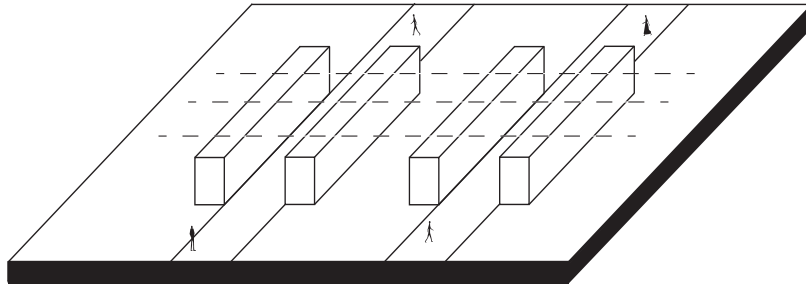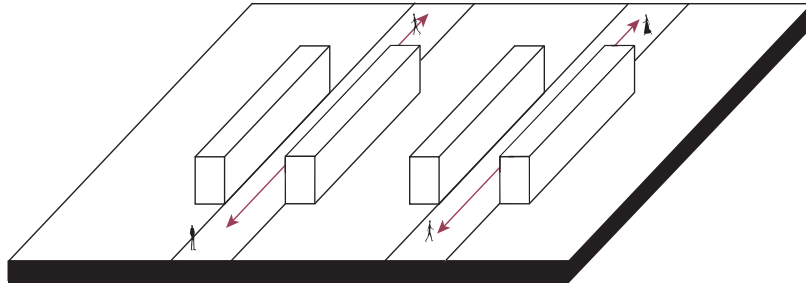
IMAGE 25. CONCEPTUAL DRAWING. DRAWN BY AUTHOR, 2018.

IMAGE 26. ALVENARIA SOCIAL HOUSING COMPETITION ENTRY. FALA ATELIER, 2013.

I've used simple spatial forms made from wood and foam to physicalize how this social housing community can give residents economic independence over time. Then, I went one step further and created mixed-media digital prototypes of the physical models. As a result, I discovered that vertically expanding each space allows for more flexibility as inhabitants incrementally expand their homes.

I focused on three initial schemes:

MODEL A allows residents a local business/retail space on the first level with private living space on the second and third levels.

MODEL B provides a terrace on the second level, giving residents the opportunity to later infill the terrace and expand their indoor living space.

MODEL C consists of two levels of living space with a private rooftop terrace that residents may later choose to enclose.
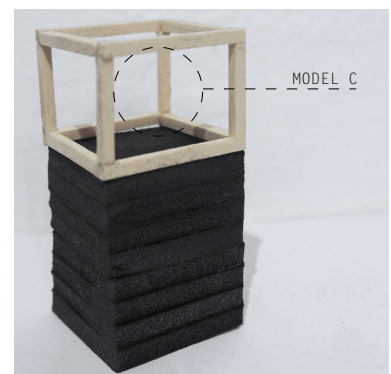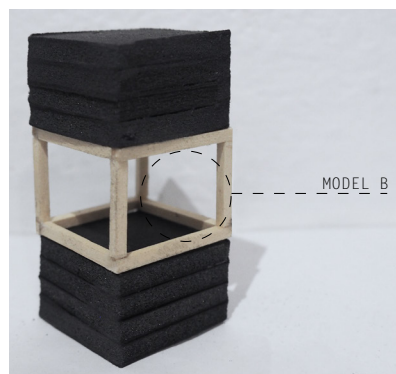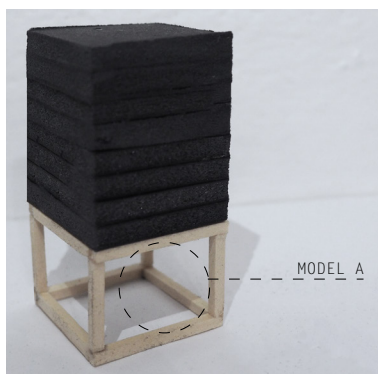
IMAGES 27-29. CONCEPTUAL MODELS. PHOTOGRAPHS BY AUTHOR, 2018.

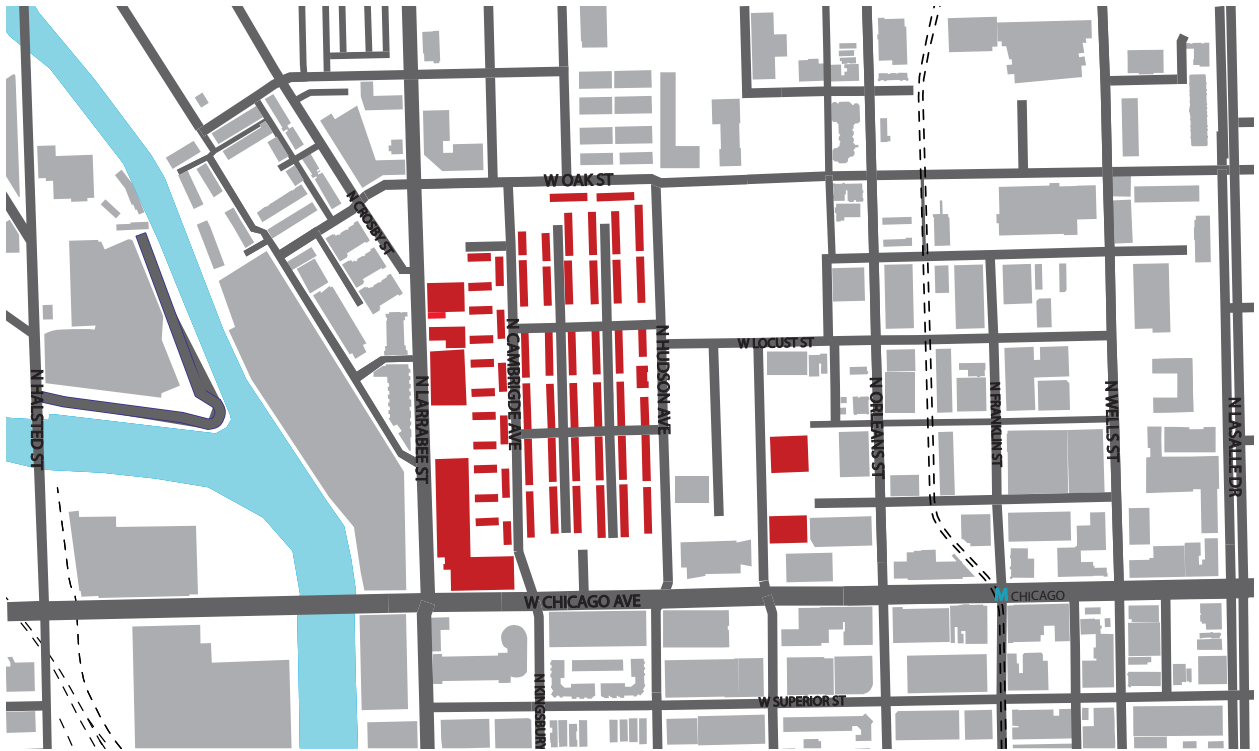IMAGE 30. CONCEPTUAL MODEL. PHOTOGRAPH BY AUTHOR, 2018.

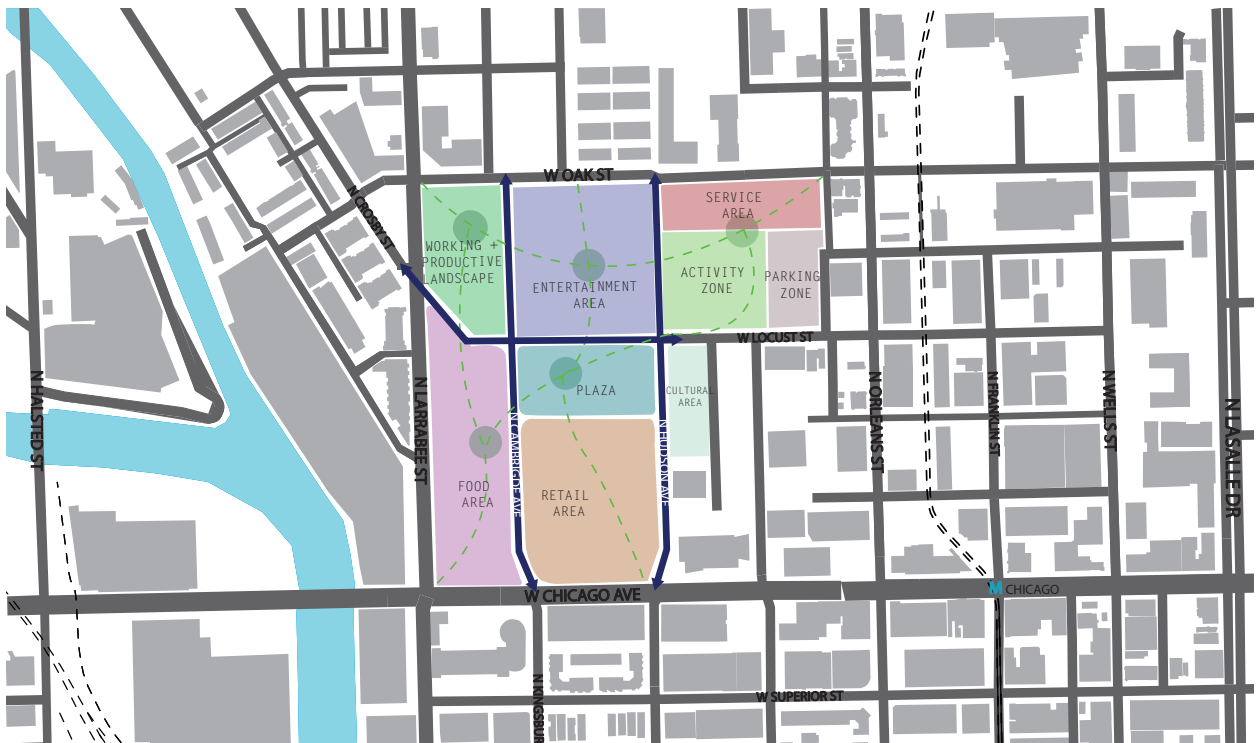IMAGE 31. EXISTING STRUCTURE AS PER 2018. GRAPHIC BY AUTHOR, 2018.

IMAGE 32. PROPOSED STRUCTURE. GRAPHIC BY AUTHOR, 2018.

I used some of the criteria from the CHA development plan as a part of my own recreation of Cabrini Green. The existing rowhouses will be removed as well as the buildings on the west side that create a barrier between North Larrabee and the rowhouse area. North Hudson and North Cambridge will remain "as is" through the site. I instead connected North Crosby and West Locust. This way it gives the site better connectivity to West Division and North Orleans.

Taking inspiration from Le Corbusier's "Radiant City", the site is divided into different areas. Food and retail are situated in the southwest area because it is the busiest section of the site - this layout attracts more people. The plaza and the entertainment area are situated in the center as the core of the site. On the east side are the cultural and activity areas because the existing community building is located in that section. West Division and West Chicago have busy bicycle traffic that can be connected through the site by adding multiple bicycle and pedestrian paths that lead the visitors through each zone. A grid system defines public and private spaces across the re-imagined Cabrini Green site. The common spaces are mostly open areas that will be surrounded by cube-shaped residences and businesses, creating a "village within the city" feel. The grid system maintains the general layout of the site and allows buildings to expand and change over time.

Focusing on component layouts within each zone consisted of analyzing 3D models and determining areas where consumers and producers meet. The exercise involved visualizing common areas that could easily adapt to the changing needs of consumers.
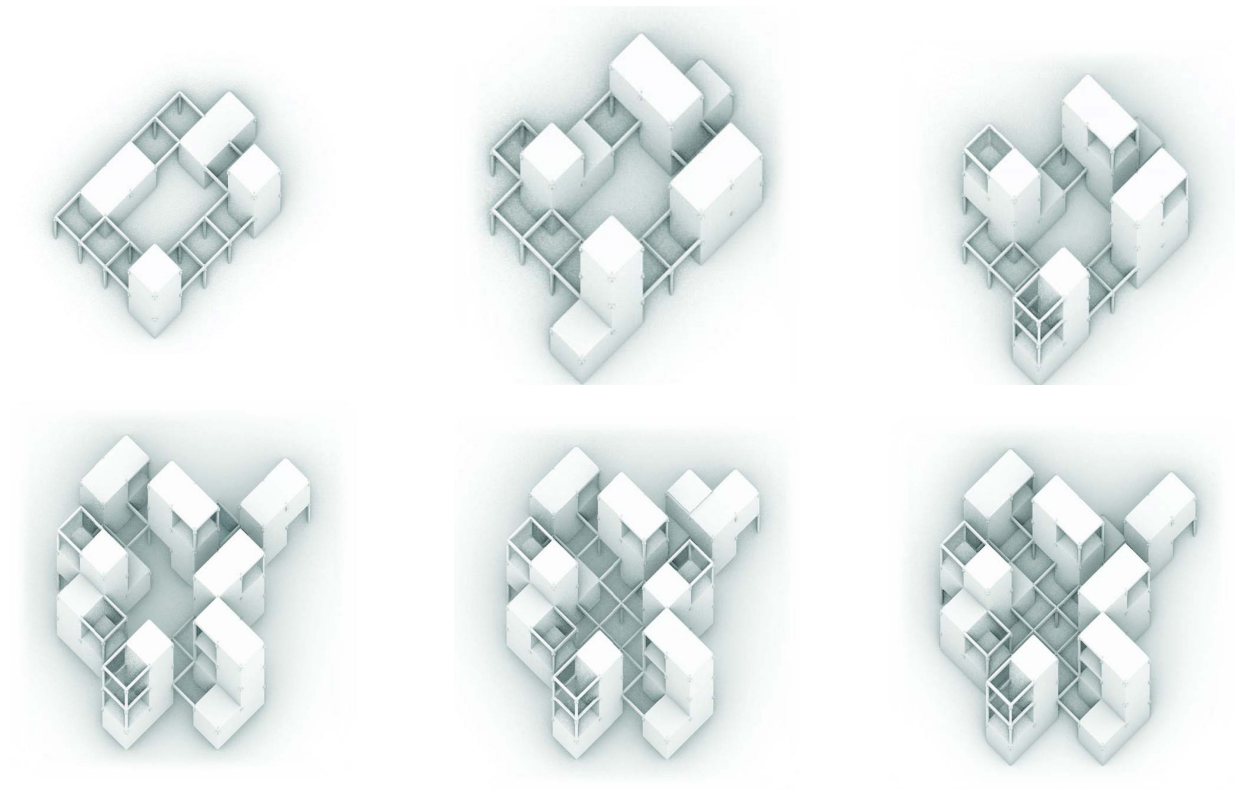
IMAGE 33. GROWING STRUCTURE. DIGITAL MODELS BY AUTHOR, 2018.

The model grew in various scales - from the relation between the individual to the scale of the neighborhood and its connection to the city.
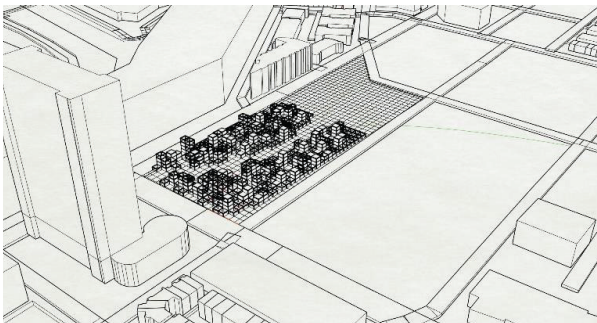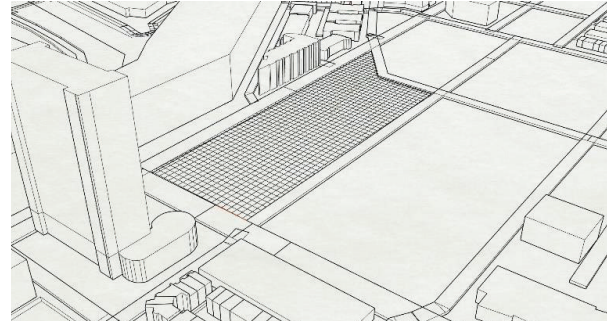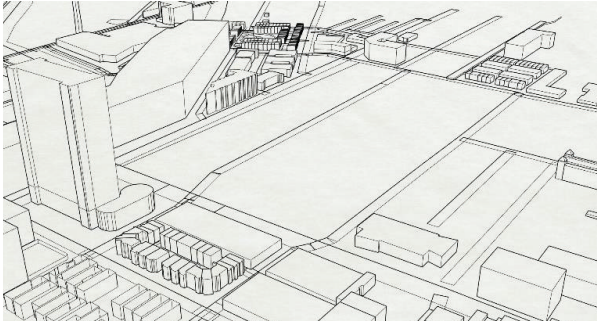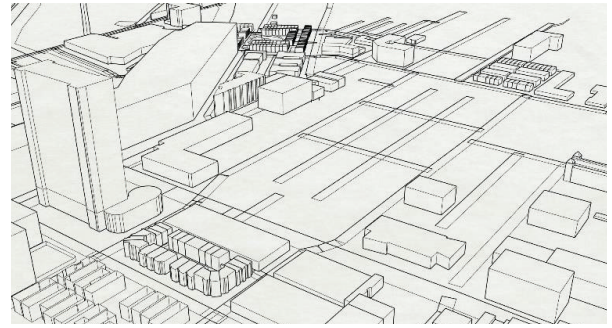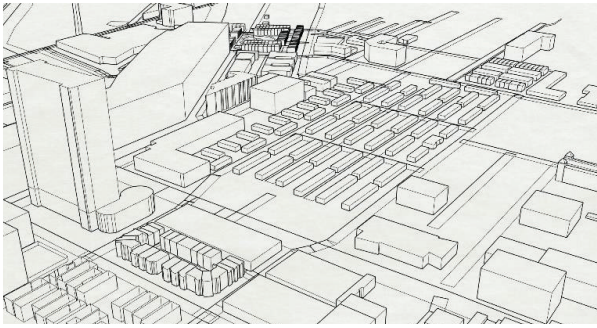
IMAGE 34. GROWING STRUCTURE ON SITE. DIGITAL MODELS BY AUTHOR, 2018.

As part of my research process, my goal was to find a system where residents could expand their living space as they desire but still stay in the frame. As an experiment I placed a 16 feet by 16 feet grid system on the site and the model imagined how this building system could adapt and grow in different types of urban situations. With the 3D as my test ground, I tried to find the connection between the public and private space. It became a living model where the homes were arranged around a "common space" and then adapted in relation to the needs of the residents.
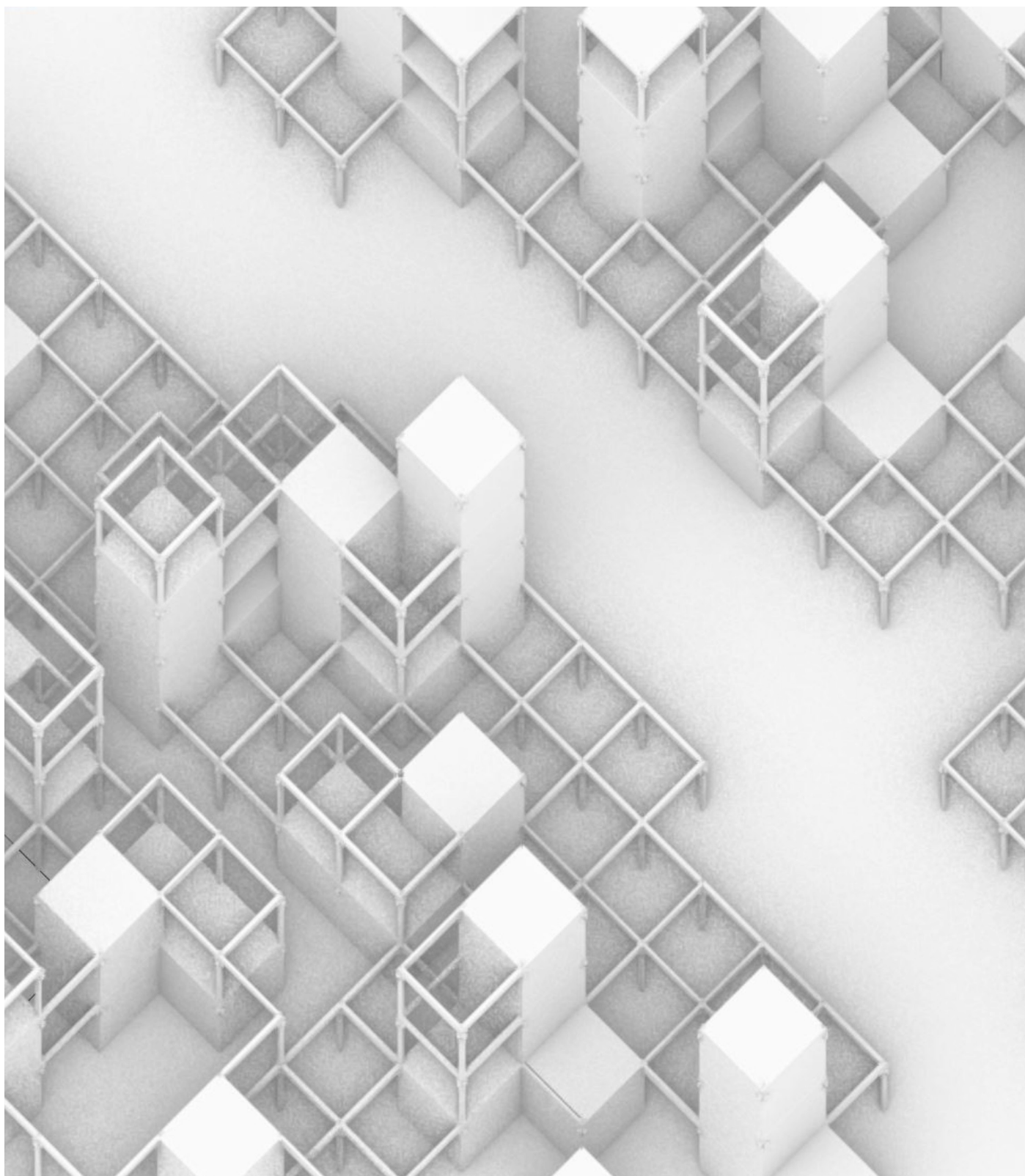
IMAGE 35. A REIMAGINED CABRINI GREEN. DIGITAL DRAWING BY AUTHOR, 2018.
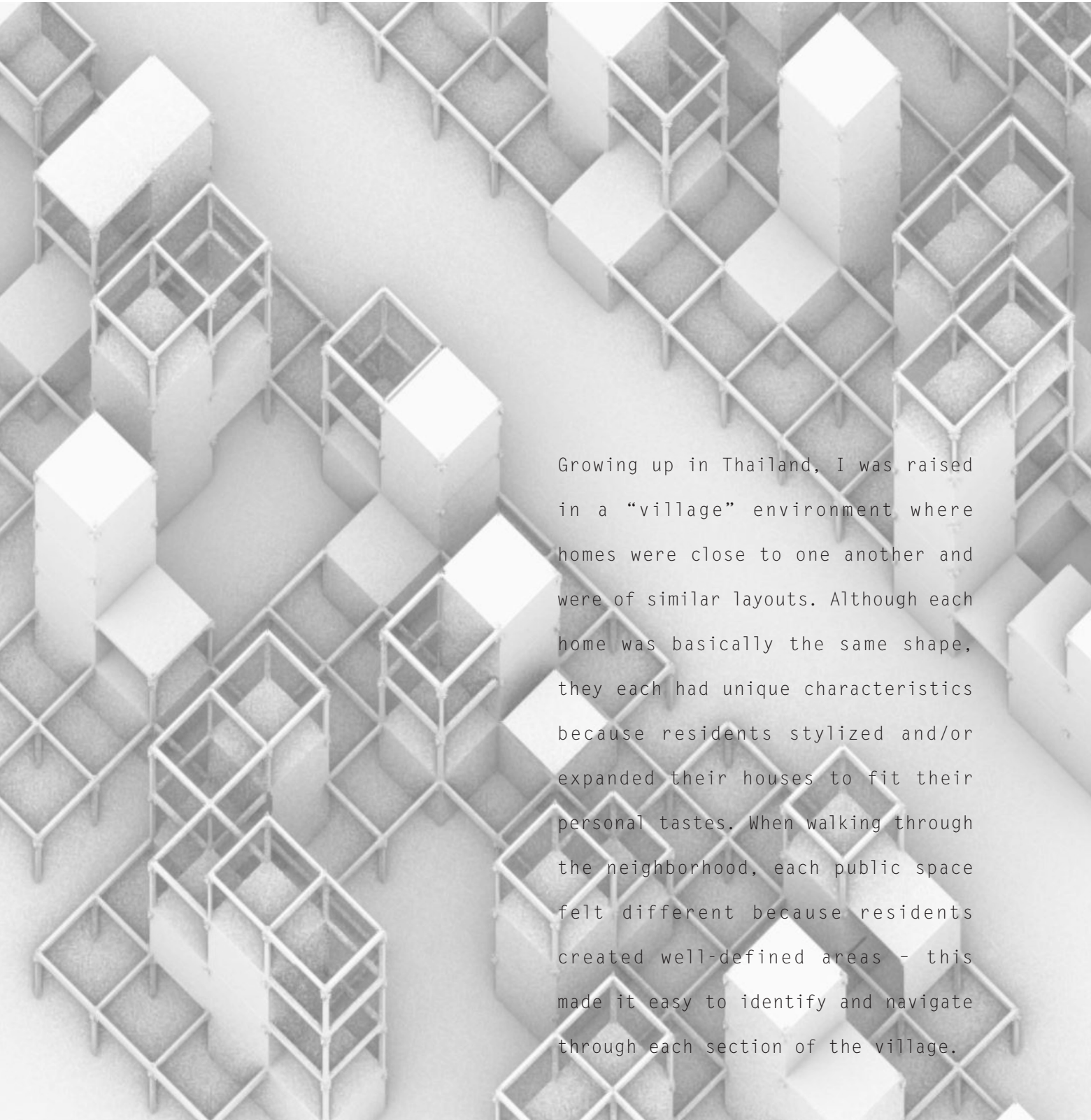
Growing up in Thailand, I was raised in a "village" environment where homes were close to one another and were of similar layouts. Although each home was basically the same shape, they each had unique characteristics because residents stylized and/or expanded their houses to fit their personal tastes. When walking through the neighborhood, each public space felt different because residents created well-defined areas - this made it easy to identify and navigate through each section of the village.

IMAGE 36. A REIMAGINED CABRINI GREEN. HAND DRAWING BY AUTHOR, 2018.
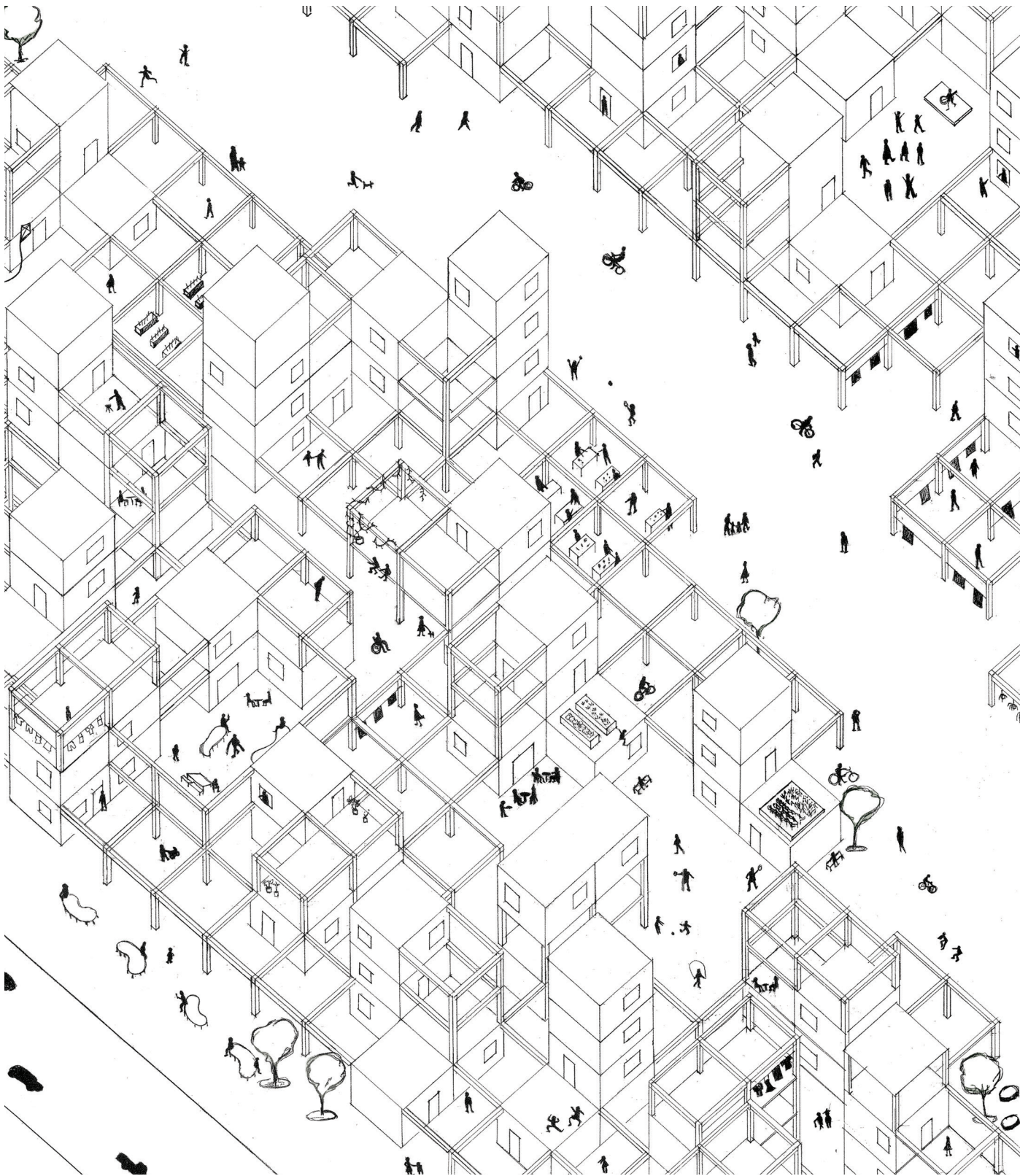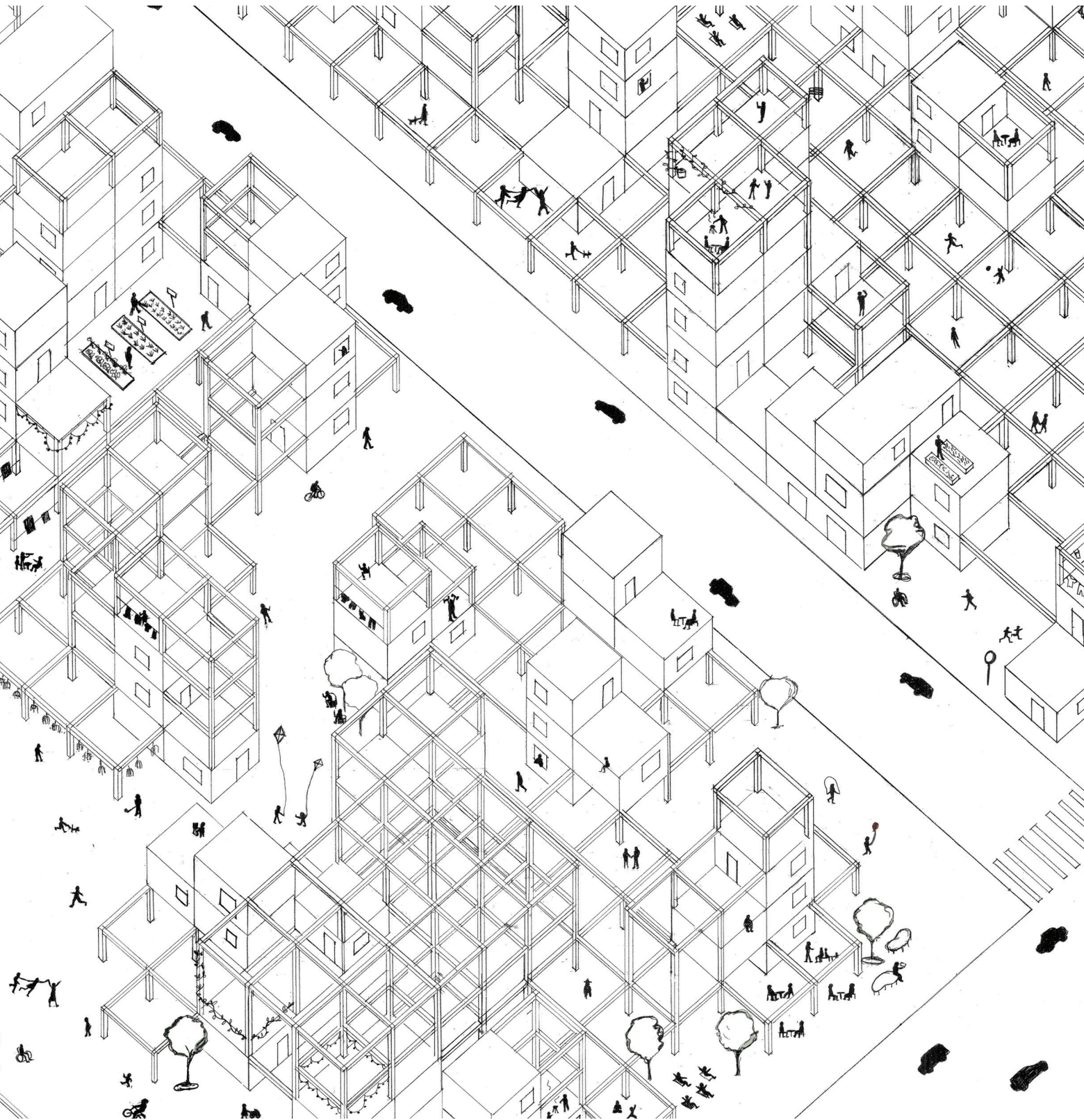
CONTENT SOURCES

THE HISTORY OF CABRINI GREEN

Chicago Time Machine: *Cabrini Green,* WTTW.
https://interactive.wttw.com/timemachine/cabrini-green. Accessed July 2018.

Modica, Aaron: *Cabrini Green Housing Project,* Black past, 2010.
http://www.blackpast.org/aah/cabrini-green-housing-project-chicago-1942-2009. Accessed July 2018.

IS A HIGH-RISE A SUITABLE SOCIAL HOUSING MODEL?

Bradley, Darren: *The Radiant City.* Modernist Architecture, 2015.
http:/modernistarchitecture.blogspot.com/2015/07/the-radiant-city.html. Accessed July 2018.

Merin, Gili: *Ville Radieuse / Le Corbusier*, ArchDaily, 2013.
https://www.archdaily.com/411878/ad-classics-ville-radieuse-le-corbusier. Accessed July 2018.

Robinson, Tasha: *In J.G. Ballard's High-Rise, the metaphor eats the story and Tom Hiddleston eats the metaphor,* The Verge, 2016.
https://www.theverge.com/2016/4/28/11518494/high-rise-movie-review-tom-hiddleston-jeremy-irons. Accessed July 2018.

A HIGH-RISE THAT IMPROVED RESIDENT LIFE QUALITY

Lambert, L'eopold: *Architectures without architects /// The Torre de David in Caracas as a proletarian (re)claim of territory.* The Funambulist, 2011.
https://thefunambulist.net/architectural-projects/architectures-without-architects-the-torre-de-david-in-caracas-as-a-appropriation-of-capitalisms-structure. Accessed July 2018.

Quinta Monroy / ELEMENTAL. Arch Daily, 2008.
https://www.archdaily.com/10775/quinta-monroy-elemental. Accessed July 2018.

PERSONAL RESEARCH PROCESS

Mortice, Zach: *When public housing goes private.* Curbed Chicago, 2016.
https://chicago.curbed.com/2016/9/28/13063710/chicago-public-housing-cha. Accessed July 2018.

No, Evelyn: *Redevelopment Plan for Thousands of New Homes in Former Cabrini Green. Smash properties,* 2015.
http://www.smashproperties.com/blog/redevelopment-plan-for-thousands-of-new-homes-in-former-cabrini-green.html. Accessed July 2018.

IMAGE SOURCES

1   *Children of Cabrini Green.* John H. White, 1981

2   *Mapping of Cabrini Green.* Drawn by author, 2018.

3   *Historical aerial photo of Cabrini Green before demolition.* Google Earth, accessed July 2018.

4   *Aereial photo of Cabrini Green after demolition.* Google Earth, accessed July 2018.

5   *High Rise in Cabrini Green.* Eric Allix Rogers, 2007.

6   *Aerial photo of cabrini Green.* Beth A. Keiser, 1996

7   *Abandoned court yards of Cabrini Green Rowhouses.* Meg Anderson, 2015.

8   *Aerial photo of Levittown.* Levittown Public Library, 1948.

9   *Model photo of 'Ville Radieuse'.* ArchDaily, accessed July 2018.

10   *Still from 'High-Rise'.* Recorded Picture Company, 2015.

11   *Still from 'High-Rise'.* Recorded Picture Company, 2015.

12   *Cabrini Green fencing facade.* AP, 2010.

13   *Torre David* from 'Torre David - informal vertical communities' by Urban-Think Tank. Iwan Baan, 2012.

14   *Petare slum, Caracas* 'Torre David - informal vertical communities' by Urban-Think Tank. Iwan Baan, 2012.

15   *Unit in Torre David.* Digital drawing by author, 2018.

16   Section of *Torre David.* Digital drawing by author, 2018.

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18   *Tailor business* from 'Torre David - informal vertical communities' by Urban-Think Tank. Iwan Baan, 2012.

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22   *Elemental Housing project.* Cristobal Palma / Estudio Palma, 2009.

23   *ELEMENTAL half-built house.* Drawn by author, 2018.

24   *Development Plan for Cabrini Green.* Chicago Housing Authority, 2015.

25   *Conceptual drawing.* Drawn by author, 2018.

26   *Alvenaria Social Housing Competition entry.* Fala atelier, 2013.

27   *Concept Model A.* Photograph by author, 2018.

28   *Concept Model B.* Photograph by author, 2018.

29   *Concept Model C.* Photograph by author, 2018.

30   *Conceptual model.* Photograph by author, 2018.

31   *Existing structure on site.* Graphic by author, 2018

32   *Proposed structure on site.* Graphic by author, 2018.

33   *Growing structure.* Serie of digital models by author, 2018.

34   *Growing structure on site.* Serie of digital models by author, 2018.

35   *A reimagined Cabrini Green.* Digital drawing by author, 2018.

36   *A reimagined Cabrini Green.* Hand drawing by author, 2018.

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