

**Rhythms and Politics of Dwelling in the City:**

A Model for Collective Housing and Development in Birmingham, Alabama

Connor Stein

A thesis submitted in partial fulfillment of the  
requirements for the degree of:

Master of Architecture

University of Washington

2021

Committee:

Alex Anderson

Brian McLaren

Program Authorized to Offer Degree:

Architecture

University of Washington

**Abstract**

**Rhythms and Politics of Dwelling in the City:**

A Model for Collective Housing and Development in Birmingham, Alabama

Connor Stein

Committee:

Alex Anderson

Brian McLaren

©Copyright 2021

Connor Stein

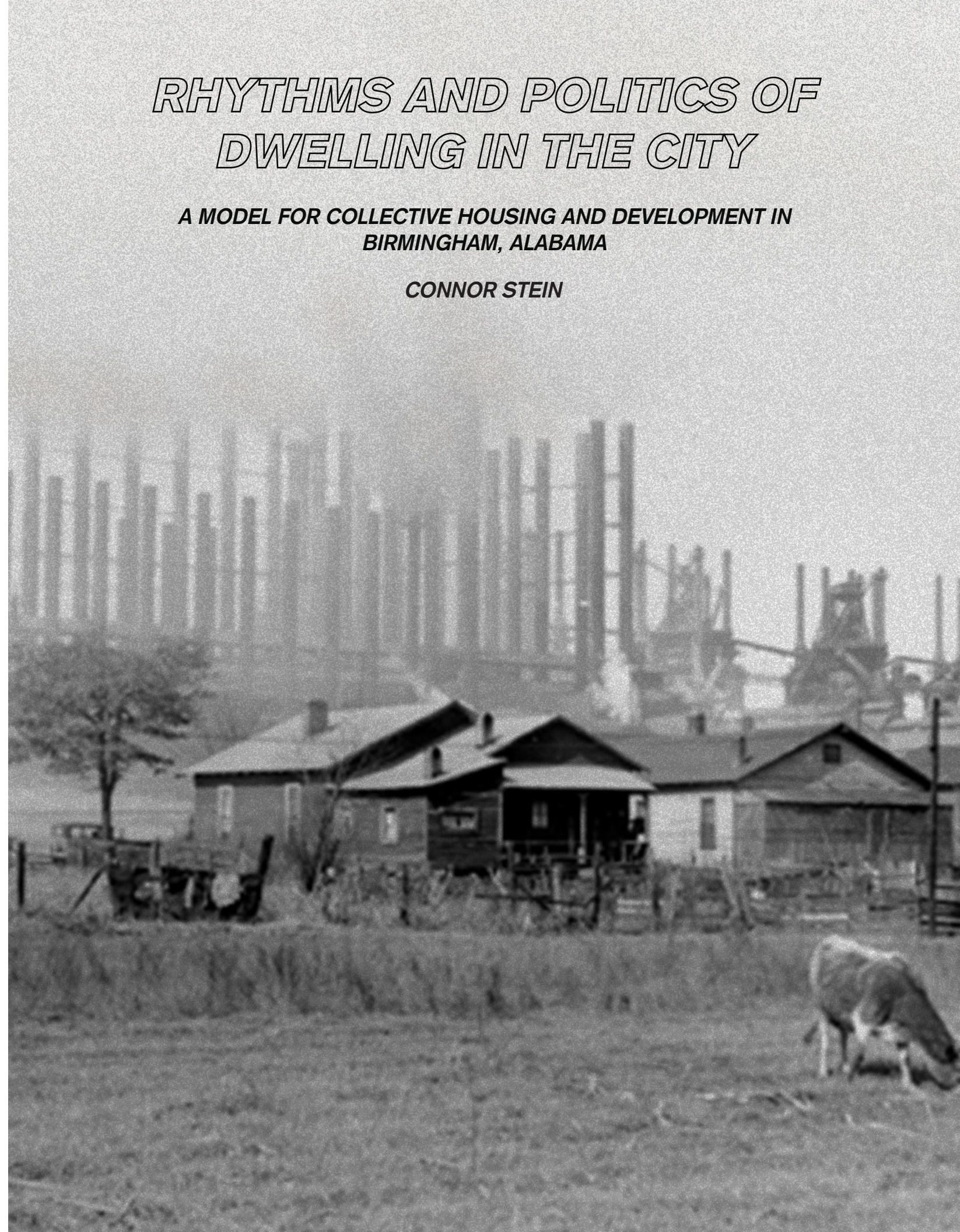
This thesis explores both the theoretical and practical aspects of dwelling in the city using rhythm as a tool to critique politically and socially imposed patterns and the built environments they produce, as well as to propose more equitable and emancipatory possibilities. A housing development in Titusville, a representative neighborhood in Birmingham, Alabama, is used to test the results of this analysis. Through both a collective development proposal and housing design, the project seeks to explore the interrelationships of natural, biological, social, and political rhythms at the intersection of urban systems and the phenomenological ground of everyday life. This project explores the dialectical relationships of individual and collective; project and city; and human and nature.

*RHYTHMS AND POLITICS OF  
DWELLING IN THE CITY*

**A MODEL FOR COLLECTIVE HOUSING AND DEVELOPMENT IN  
BIRMINGHAM, ALABAMA**

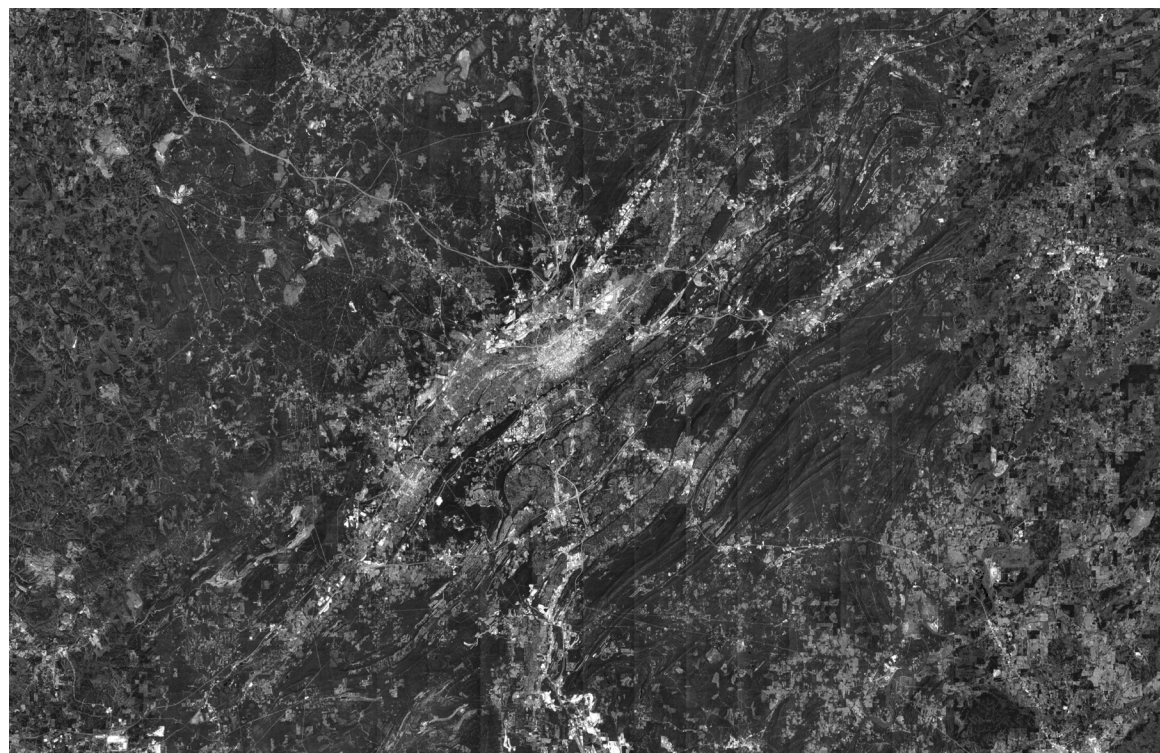
**CONNOR STEIN**

This page intentionally left blank





*fig. 1. Centrality*



*fig. 2. Expansion*

## Contents

1. Introduction.....	8
2. Theoretical Framework: Space, Rhythm, and Everyday Life	
Historical and Theoretical Context & the Necessity of Critique.....	10
The Production of Space.....	11
Rhythm and Collectivity.....	18
Rhythm, Architecture, and the Housing Process.....	19
3. Precedents: New Rhythms of Dwelling in the City.....	24
4. Production of the City: Birmingham, Alabama from 1871 to the Present.....	28
Founding: Speculation and Industrial Production.....	30
Exodus: Suburbanization and Urban Renewal.....	35
Explosion-Implsion: Exurbanization and Enclaves.....	40
5. Titusville: Neighborhood Analysis and Site Selection.....	45
6. Project Design: Repetition and Difference.....	54
Expanding Outward.....	68
7. Conclusion: New Horizons.....	72
Bibliography.....	74

## 1. Introduction

This thesis argues that the city in contemporary society is failing to fulfill its promise. The city is a social resource that brings together widely disparate elements of society together in a productive process. The city is a center of exchange, simultaneity, convergence, collectivity, and meeting (figure 1). The promise of the city is the possibility of centrality, the possibility of education and opportunity, the possibility of places of meeting and exchange, the possibility of building relationships and communities, the possibility of particular rhythms and a use of time that enables a full use of these places.

The unfulfilled promise of dwelling in the city is commonly found in the language of the housing crisis, purely in terms of a quantitative shortage of housing units. However, for the city to fulfill the promise that it represents, both the city and housing must be considered in terms of their quality, or specific character. When the city is understood as a social realm that is produced and reproduced, it opens the possibility of intentional change. The city is not a static object but a

historically contingent space that is influenced by and influences the people who dwell in it. This thesis proposes to use rhythm as a practical tool to produce social spaces within the existing space of the city, beginning with the rhythms of dwelling, collectivity, and everyday life.

This is a thesis about housing and the city that is at once general and particular. It is primarily focused on a particular city, Birmingham, Alabama, with its urban history and struggles related to housing, community, and the right to dwell in the city. At the same time, it proposes a general theoretical framework for analyzing, understanding, and critiquing both the city and the dwelling as social and historical products.

This theoretical framework is built around Henri Lefebvre's theory of the production of space<sup>1</sup>, which will be applied to everyday life through the concept of rhythm. Taken together, these theories provide both a conceptual and practical link between the scales of the city and everyday life, as well as the means to instigate change from one scale to the other. This framework is applied to the city of Birmingham to understand the historical development of the space of the city and its relationship to the spaces of everyday life. This is explored through an analysis of Titusville, a neighborhood representative of the current city (figure 2). The project then uses rhythm as a tool to facilitate communal ownership of publicly owned land into an architecture of collective dwelling, in the process reimagining the city as an emancipatory place for all people.

---

<sup>1</sup> Lefebvre, Henri. *The Production of Space*. Translated by Donald Nicholson-Smith, Blackwell Publishers Ltd, 1991.

## 2. Theoretical Framework: Space, Rhythm, and Everyday Life

### Historical & Theoretical Context and the Necessity of Critique

A central premise of this thesis is that the built environment is subject to commodification -- and thus is a site of exploitation -- and that this commodification stands in the way of equal access to the lived experience of cities. In making this argument, it draws upon the theoretical discourse of the 1970s, which was dominated by the critical possibilities and potential of architecture. Much of this debate was built around the work of Manfredo Tafuri and the American response to his positions. The need for criticism developed from a growing disaffection with the avant-garde architecture produced in the early 20th century which served as “vehicles of world domination and administration in the hands of rampant capitalist expansion.”<sup>1</sup>

Tafuri’s despair, in the hands of American academics, was “deploy[ed] as a trigger for a new architecture” which located the critical potential of architecture in its status as a work of art, allowing the discipline to stake out a position against mass or low culture.<sup>2</sup> The need for critique fell out of vogue at the end of history, giving way to new trends in academia and practice. In the meantime, the built environment has continued to be a site of struggle in everyday life, as evidenced by increasingly unaffordable cities which now are beginning to suffer from the effects of global climate change.

<sup>1</sup> Ghirardo, Diane Y. “Manfredo Tafuri and Architecture Theory in the U.S., 1970-2000.” *Perspecta*, vol. 33, 2002, pp. 38–47.

<sup>2</sup> *Ibid*

In 1985, the influential cultural critic and theorist Fredric Jameson suggested that “perhaps...something is to be said after all for Lefebvre’s calls for a politics of space...”<sup>3</sup> Yet, Lefebvre’s influence in architecture was marginal for much of the last three decades, likely due to the fact that his seminal work on space was not translated to English until six years after Jameson’s proclamation (and almost 20 years after it was first published). Lefebvre’s theory of the production of space forms the backbone of this thesis, and it provides a means to move beyond the “purely architectural alternatives” lamented by Tafuri.<sup>4</sup>

### The Production of Space

Henri Lefebvre’s theory of the production of space forced a qualitative shift from the Cartesian understanding of space as an empty container to an understanding of space as the product of an active process that plays out in time, with every society producing a space. According to Lefebvre,

Social space is not a thing among other things, nor a product among other products: rather, it subsumes things produced, and encompasses their interrelationships in their coexistence and simultaneity—their (relative) order and/or (relative) disorder. It is the outcome of a sequence and set of operations, and thus cannot be reduced to the rank of a simple object. At the same time there is nothing imagined, unreal or ‘ideal’ about it as compared, for example, with science, representations, ideas or dreams. Itself the outcome of past actions, social space is what permits fresh actions to occur, while suggesting others and prohibiting yet others.<sup>5</sup>

<sup>3</sup> Jameson, Fredric. “Architecture and the Critique of Ideology.” *Architecture | Criticism | Ideology*, edited by Joan Ockman, Princeton Architectural Press, 1985, pp. 51–87.

<sup>4</sup> Tafuri, Manfredo. *Architecture and Utopia: Design and Capitalist Development*. MIT Press, 1976.

<sup>5</sup> Lefebvre, Henri. *The Production of Space*. Translated by Donald Nicholson-Smith, Blackwell Publishers Ltd, 1991.

Space is both a process and outcome that occurs simultaneously at three interconnected dimensions of production which can be defined in semiotic and phenomenological terms (figure 3) and according to the following scheme – with spaces of representation, spatial practice, and representation of space being semiotic and lived, perceived and conceived spaces being phenomenological.

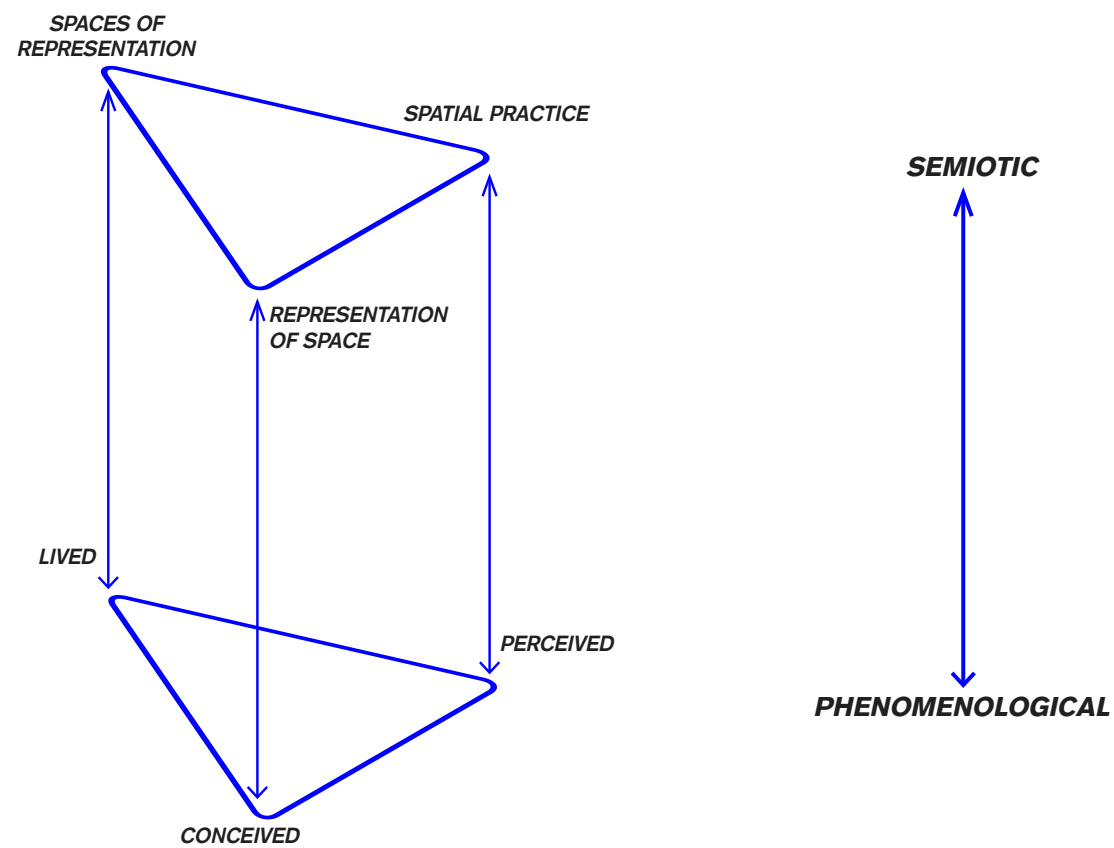


fig. 3. Diagram, Production of Space

At the level of material production, perceived space is constituted by material elements that can be grasped by the senses, forming “networks of interaction that emerge in daily life” with the support of physical networks of streets, paths, dwellings, and production sites. Spatial practice involves the combination of perceived material elements into a spatial order (figure 4).<sup>1</sup>

**PERCEIVED SPACE (P)**

Material elements that constitute a space; dwellings, businesses, cultural and religious institutions

**PHYSICAL NETWORKS AND NETWORKS OF INTERACTION**

Paths, sidewalks, roads, railways

**SPATIAL PRACTICE (S)**

The combination of perceived material elements into a spatial order

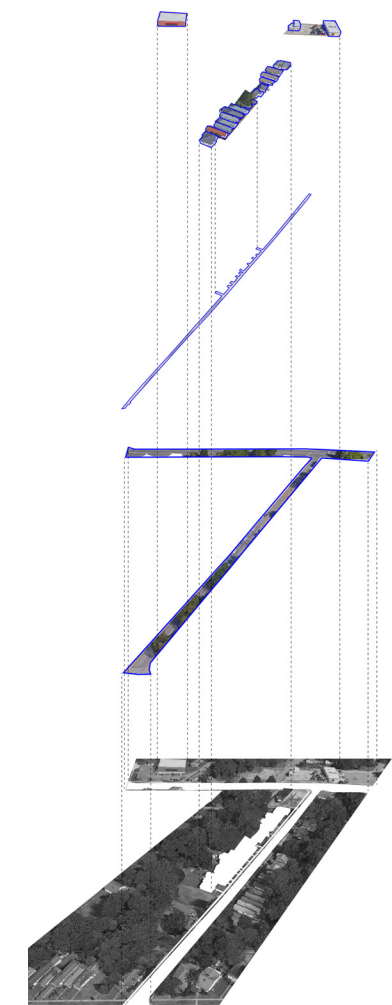


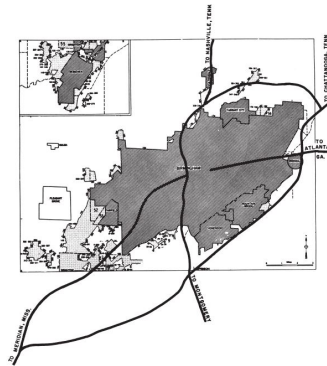
fig. 4. Material Production

<sup>1</sup> Schmid, Christian, and Christian Schmid. “Theory.” Switzerland: An Urban Portrait, by Roger Diener et al., Birkhauser, 2014, pp. 163–173.

Conceived space, an aspect of knowledge production, rests on learned conventions and implies power structures and social relations. Representations of space include discourse, signs, and images. It also includes the work of architects and planners (figure 5).

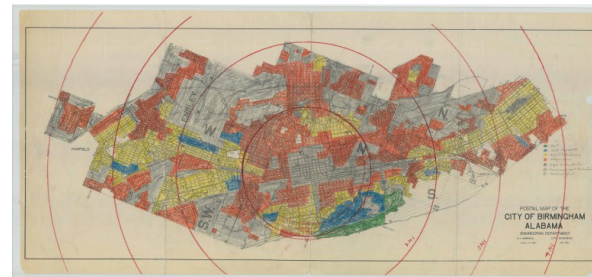
**CONCEIVED SPACE (P)**

*Establishment of which elements are related and which are precluded*



**SOCIAL AND POLITICAL CONVENTIONS**

*Linked to power structures; learned but not unalterable*



**REPRESENTATION OF SPACE (S)**

*Verbalized discourse, images, signs; maps, plans, and scientific theories*



*fig. 5. Production of Knowledge*

Lived space consists of the experience of everyday life with its “ineffable surplus beyond analysis.”<sup>1</sup> Spaces of representation refer to something besides the space itself through a process of signification that attaches meaning to material (figure 6).

**LIVED SPACE (P)**

*The experience of everyday life*



**PRODUCTION OF MEANING**

*Signification and material symbolism*



**SPACES OF REPRESENTATION (S)**

*Refer to something else; an ineffable surplus beyond analysis*



*fig. 6. Production of Meaning*

<sup>1</sup> Schmid, Christian, and Christian Schmid. “Theory.” *Switzerland: An Urban Portrait*, by Roger Diener et al., Birkhauser, 2014, pp. 163–173.

Space is, according to this view, an active, multilayered fabric that is produced and reproduced through “the practical, mental, and symbolic production of connections between... ‘objects.’”<sup>1</sup> Ultimately, “space contains things yet is not itself a thing or material ‘object’... [S]pace implies, contains and dissimulates social relationships - and this despite the fact that a space is not a thing but rather a set of relations between things (objects and products).”<sup>2</sup> Space is inscribed by the actions that produced it and prescribes future actions that are allowed by the social relations that it contains.

In his 1977 manifesto, O.M. Ungers argued that urban space is the space of contemporary society (figure 7).<sup>3</sup> This includes the historic city but expands beyond its centrality to include a network of urban fabric that forms an assemblage of polycentric elements (figures 8 and 9). According to Ungers, these elements no longer form a rational, discrete entity with a known boundary, but must be understood as disparate elements brought together in a dialectical process to form a unity with each retaining its centrality.

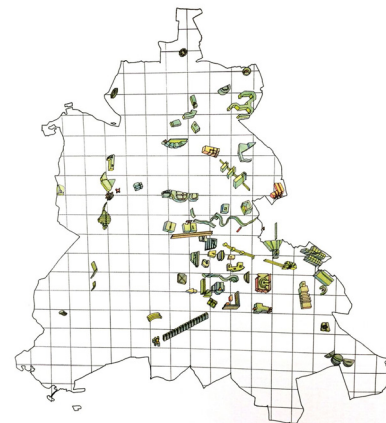


fig. 7. 'Berlin as a Green Archipelago' O.M. Ungers, 1977

<sup>1</sup> Schmid, Christian, and Christian Schmid. "Theory." Switzerland: An Urban Portrait, by Roger Diener et al., Birkhauser, 2014, pp. 163–173.

<sup>2</sup> Lefebvre, Henri. The Production of Space. Translated by Donald Nicholson-Smith, Blackwell Publishers Ltd, 1991.

<sup>3</sup> Hertweck, Florian, and Marot Bastien. The City in the City: Berlin: a Green Archipelago: a Manifesto (1977) by Oswald Mathias Ungers and Rem Koolhaas with Peter Riemann, Hans Kollhoff, and Arthur Ovasca. Lars Muller Publishers, 2013.



fig. 8. Historic core of Birmingham...

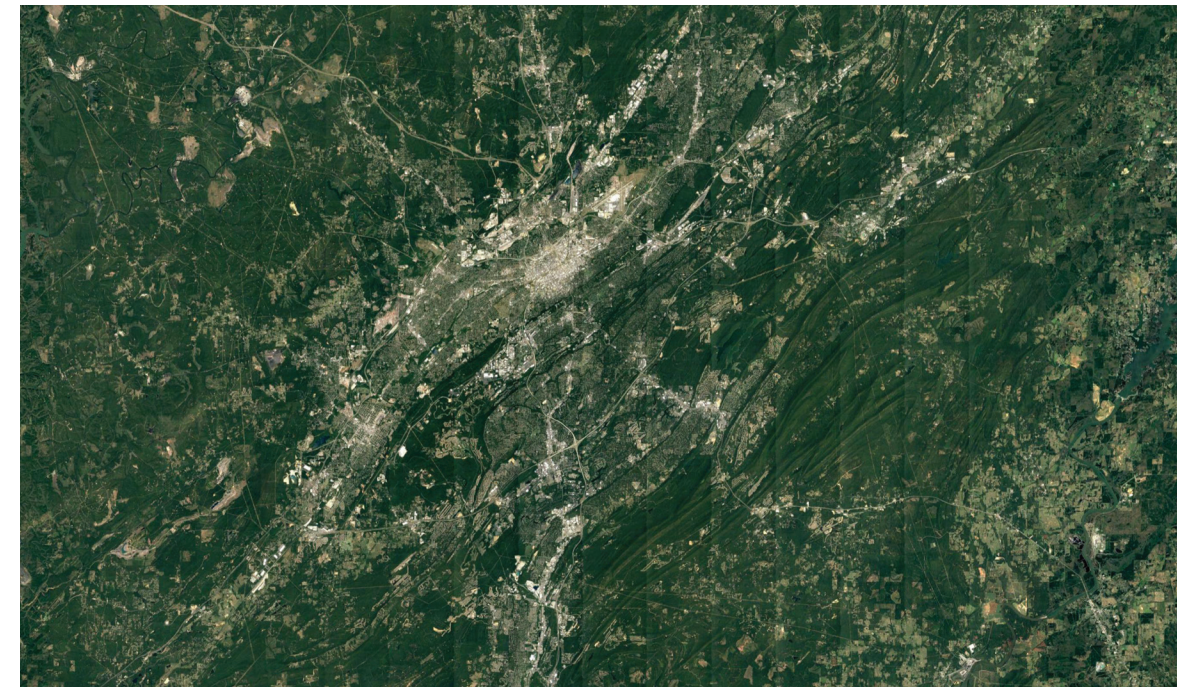


fig. 9. ...and polycentric expanse

## Rhythm and Collectivity

The theory of the production of space is brought into contact with everyday life through rhythm. Lefebvre and Roland Barthes theorized rhythm as the concrete use of space and time through human activity.<sup>1</sup> The individual is a “convergence of different temporal processes”, starting from the rhythms of bodily reproduction and the rhythms of habit.<sup>2</sup> A community is formed “through a process of interactions that reproduce a social structure in an ongoing evolutionary process” (figure 10).<sup>3</sup> Living together is thus an interaction of social and individual rhythms that produces a place which is articulated through the interaction of particular temporalities. This understanding of autonomy and community diffuses the traditional philosophical atomization of the idea of the ‘self’ and the ‘other’ in confrontation by theorizing the social as a mesh of rhythms and the individual as a process in becoming, with one weaving in and out of the other to form an ecology of rhythms.



fig. 10. 'The Art of Living'. Saul Steinberg, 1949

<sup>1</sup> Lefebvre, Henri. *Rhythmanalysis: Space, Time and Everyday Life*. Translated by Stuart Elden and Gerald Moore, Continuum, 2004. & Barthes, Roland. *How to Live Together: Novelistic Simulations of Some Everyday Spaces*. Translated by Kate Briggs, Columbia University Press, 2012.

<sup>2</sup> Tygstrup, Frederik. "Idiorhythm." *Living Together: Roland Barthes, the Individual and the Community*, edited by Knut Stene-Johansen et al., [Transcript], 2018, pp. 223–230.

<sup>3</sup> Ibid

To be human then is to participate in a common, socially rhythmicized time while also breaking away from and critiquing that common pattern to nurture one's idiosyncratic and habitual way of life. Understood in terms of rhythm, dwelling is the freedom to live according to one's needs in productive interaction with those of the collective. Rhythm thus becomes a tool of critique when measured against the patterns imposed by power and provides a tool for finding “a median, utopian, Edenic, idyllic form [of living together]: idiorhythm.”<sup>1</sup> The individual and collective form an interdependent unity that defines the horizon of the social and forms part of the process of the production of space.

## Rhythm, Architecture, and the Housing Process

By demarcating a territory through the act of repetition, rhythm forms the basis for architecture. This process begins internally through our bodily interactions with the material world. Architecture defines a spatial order from this territory through the construction of walls to mark out a space which is then selectively reopened with doors and windows, reconnecting the new space both with its surroundings as well as the spaces of others. The Dutch architect Hans Van der Laan proposed a pattern theory of scales of architectural space corresponding to the rhythms of the individual and the collective (figure 11). Van der Laan's schema connects spatial scales to degrees of sociability, from the personal space of the “cell” to the collective “court” produced by the arrangement of personal spaces, to the larger scale of the “domain” formed by the relationship of cells and courts (figure 12).<sup>2</sup>

<sup>1</sup> Barthes, Roland. *How to Live Together: Novelistic Simulations of Some Everyday Spaces*. Translated by Kate Briggs, Columbia University Press, 2012.

<sup>2</sup> Van Der Laan, Dom Hans. *Architectonic Space: Fifteen Lessons on the Disposition of the Human Habitat*. E. J. Brill, 1983.

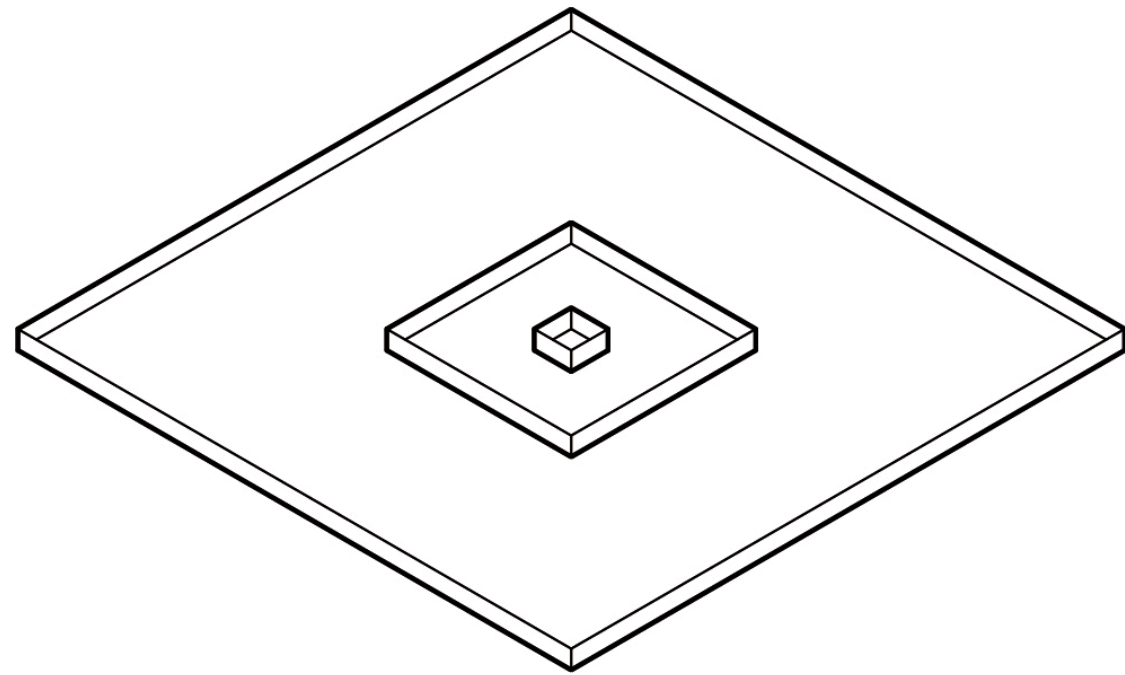


fig. 11. Architectonic space composed of cell, court, and domain. Van der Laan.

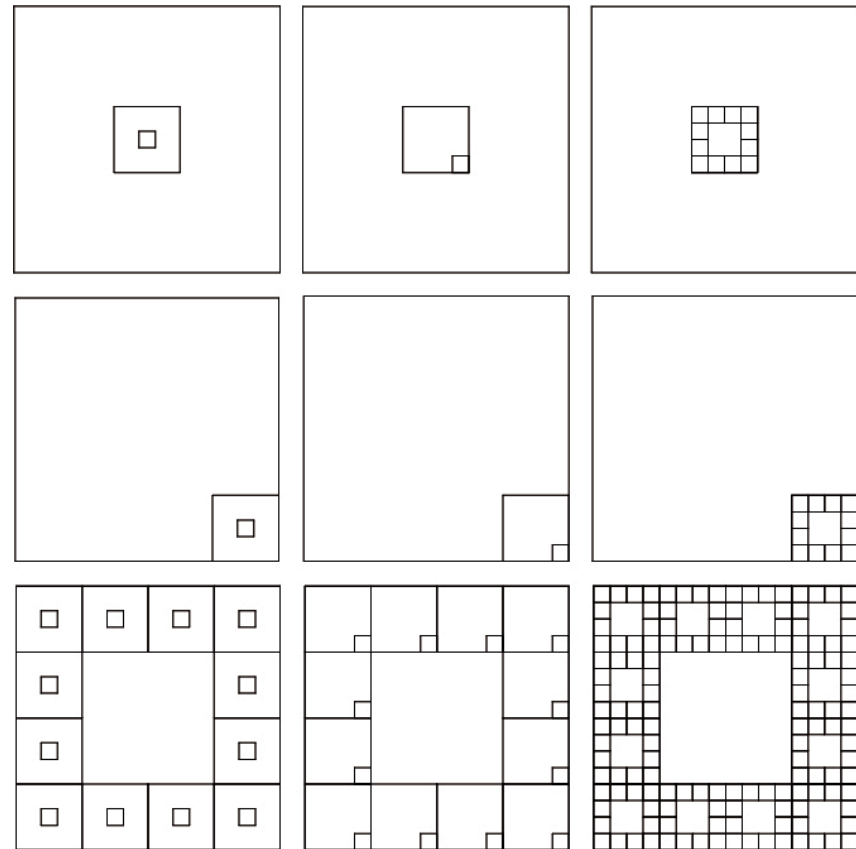
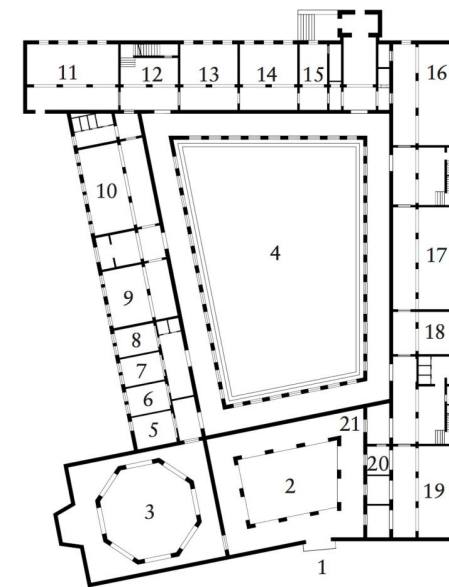
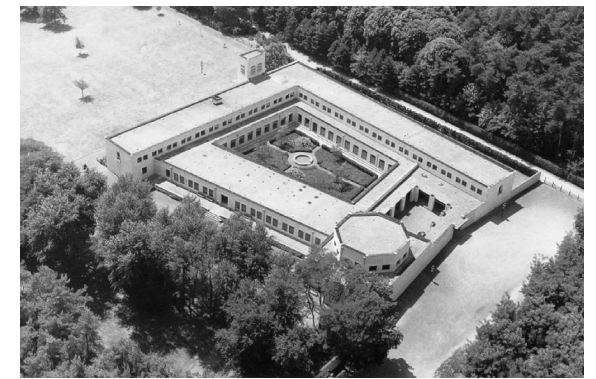
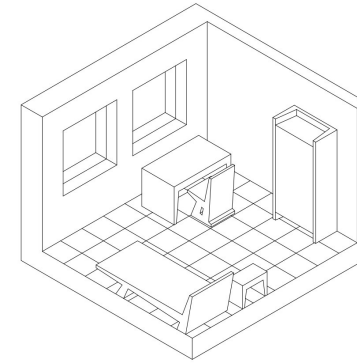


fig. 12. Combinations and relationships of architectonic spaces. Van der Laan.



Personal cell and plan arrangement

Spatial and social relationships framed by a nested series of architectural scales

fig. 13. Drawings and Images of Roosneberg Abbey. Van der Laan.

These socio-spatial architectural patterns provide a general theory of architecture that gains specificity in historically contingent situations through a fundamentally human activity that Van der Laan calls the housing process. In this process, the act of building is part of a metabolic relationship between humanity and nature which brings individuals into an direct relationship with the material world and with a collective of others by marking out and building a distinctly human space within the space of nature (figure 13). While the dwelling forms the basis for the “human habitat,” it does not remain static. Rather, the form of the dwelling must be allowed to change over time to reflect the dynamic act of dwelling, and “by building we must learn to build.”<sup>1</sup>

A historical example of the social evolution of dwelling is found in the changing preference from thoroughfare plans to terminal room plans as explored by Robin Evans. The quality of contemporary dwelling forms and their implied social relationships remain largely unquestioned, as we have inherited an architecture of corridors and terminal rooms that “is employed more and more as a preventative measure; an agency for peace, security, and segregation which, by its very nature, limits the horizon of experience” (figure 14). Alternatively, Evans points to the thoroughfare room as “another kind of architecture that would seek to give full play to the things that have been so carefully masked by its anti-type...arising out of the deep fascination that draws people towards others...[and] recognizes passion, carnality, and sociality” (figure 15).<sup>2</sup>

Understood together, the space produced by a society encourages, allows

<sup>1</sup> Van Der Laan, Dom Hans. *Architectonic Space: Fifteen Lessons on the Disposition of the Human Habitat*. E. J. Brill, 1983.

<sup>2</sup> “Figures, Doors, Passages.” *Translations from Drawing to Building*, by Robin Evans, Architectural Association Publications, 1997, pp. 55–92.

for, and imposes specific rhythms which in turn constitute the space of the city and the dwelling (figure 16). Rhythms also contribute to the production of space. New rhythms can produce new spaces in an interwoven process. This method of producing space stands in contrast to the top-down production of space that typically occurs through social norms. This theoretical framework will be applied to Birmingham to analyze the city and its spaces of everyday life through a series of mappings that bring together material networks, representations of the city, and artifacts of everyday life to understand the city as a historically contingent space. This will frame the context of the project which will be proposed as a pattern that responds to and improves the city’s contemporary conditions.

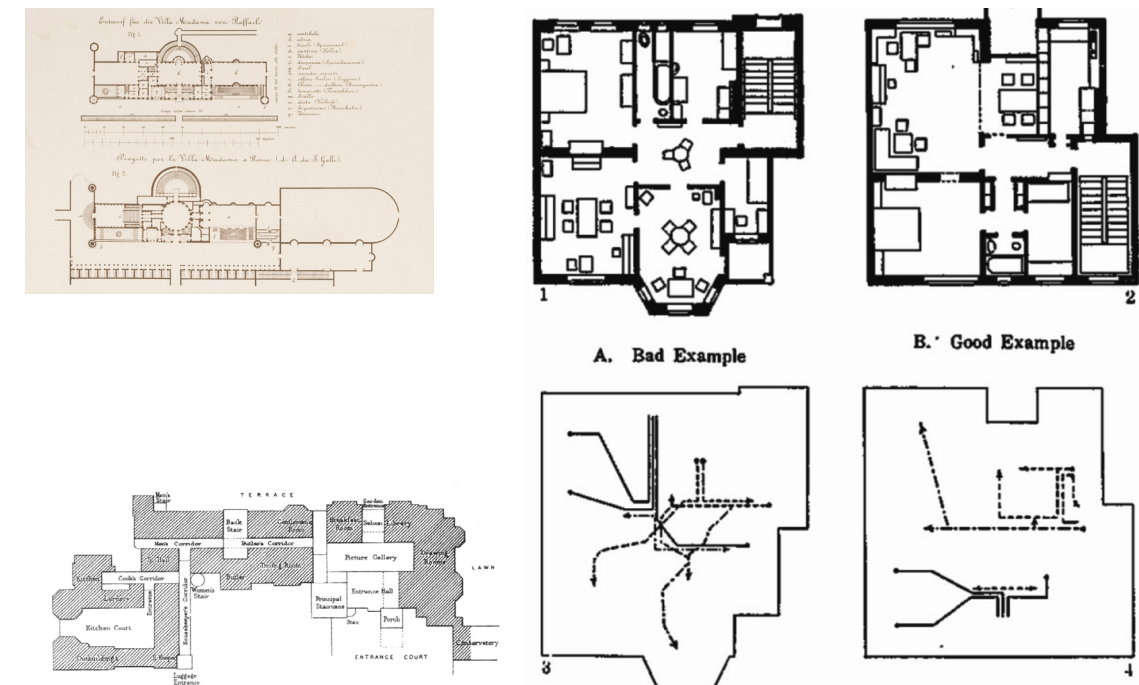


fig. 14. Plan of Villa Madama, as discussed in ‘Figures, Doors, Passages’ by R. Evans  
 fig. 15. Plan of Bearwood, as discussed in ‘Figures, Doors, Passages’ by R. Evans  
 fig. 16. ‘Functional House for Frictionless Living’ (A. Klein), as discussed in ‘Figures, Doors, Passages’ by R. Evans

### 3. Precedents: New Rhythms of Dwelling in the City

The theoretical framework of this thesis posits that in order to make the city a place for all people, new spaces that provide inhabitants with a freedom to dwell must be created within the existing fabric of the city. These spaces are produced by introducing new economic, social, and architectural programs that challenge the existing normative methods that reproduce the built environment in its current formation. Architects cannot simply imagine new (architectural) spaces with the hope that the city will be radically transformed into a more just and equitable place. New models of collective financing, development, and ownership do not necessarily critique the social form of the dwelling. However, taken together, these components of the housing process can be critically reimagined to produce new spaces of dwelling.

#### Granby Four Streets Community Land Trust

Granby Four Streets Community Land Trust is a model for collectively-owned, community-driven neighborhood revitalization. The project is a collaboration between Assemble UK and the land trust to renovate and reimagine four remaining streets of Victorian row houses in a working class neighborhood in Liverpool. The project builds on the neighborhood's existing social infrastructure such as outdoor markets and community gathering spaces, but the renovated housing forms the backbone of the project (figure 17). While the homes themselves accept traditional modes of dwelling as a given, the project is still exemplary for the economic and social programs of collective ownership and community control that it incorporates (figure 18).



*fig. 17. Street Market, Granby Four Streets CLT*



*fig. 18. Renovated home, Granby Four Streets CLT. Assemble UK*

#### Siedlung Hellmutstrasse

Siedlung Hellmutstrasse in Zürich combines a model of collective ownership with an inventive spatial strategy that questions the notion of dwelling as a static form. The project is cooperatively owned and financed, and the design serves as an extension of this model of ownership. In a cooperative model, residents typically purchase a share or shares in a cooperative entity that provides the right to dwell in the building rather than ownership of a discrete unit. The design splits the components of dwelling into three 'bands' that run the length of the building. The central band holds all of the kitchens and bathrooms, with living spaces located in bands on either side of the central band. The south band is broken up by alternating courtyards which provide vertical circulation to the units. The north band is divided into smaller, cellular spaces with premade openings in the interior partitions. Each unit contains a portion of the central band which also serves as the entry space. The north band becomes a negotiable space over time, with the rooms allotted to each unit allowed to change by closing and opening the interior partitions (figure 19). This system allows for the dwelling to change as the household composition changes over time (figure 20).



fig. 19. Plan variations through negotiation. ADP Architects.

fig. 20. Siedlung Hellmutstrasse, ADP Architects.

### Community Land Trust Housing Prototype, Dogma

The housing prototype for a Brussels-based community land trust by Dogma provides something of a synthesis of the two previous projects. Combining the community-oriented model of the land trust with the spatial flexibility of the Siedlung Hellmutstrasse, the project challenges typical models of housing procurement and design. Since the land trust model removes land and housing from the speculative market, it provides a tool for producing permanently affordable housing. This model allows the design of the housing to express rhythms beyond the pressures of market-driven development. In this project, dwelling again takes a dynamic form that can adapt to a variety of household compositions and changes over time (figure 21). The differentiation of functional spaces from living spaces and the use of premade openings in the cross-laminated timber core walls allows units to expand and contract laterally over time (figure 22).

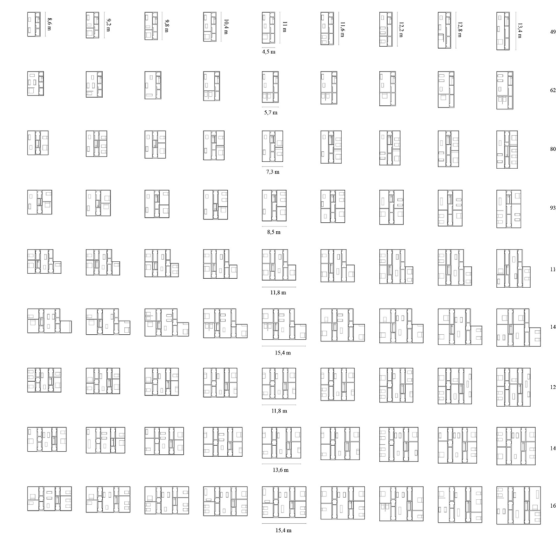


fig. 21. Plan variations, CLT Housing. Dogma.

fig. 22. Structural and spatial module, CLT Housing. Dogma.

The models discussed here represent a variety of strategies which have been employed to produce new spaces for dwelling within the city and which inform the design of this project. These precedents show the importance of designing new architectural spaces alongside new models of ownership and collectivity. Taken together, they serve as examples of the process of the production of space, moving beyond the typical understanding of architectural space to encompass the political, social, and economic factors that go into the production of housing and the city.

*"It is an industrial monster sprung up in the midst of a slow-moving pastoral. It does not belong-and yet it is one of the many proofs that Alabama is an amazing country, heterogeneous, grotesque, full of incredible contrasts. Birmingham is a new city in an old land."*

*-Carl Carmer*

#### **4. Production of the City: Birmingham, Alabama from 1871 to the Present**

This thesis proposes that the city and the dwelling are linked together in the process of the production of space, and that to rethink and remake the city for all people, new spaces must be produced in the fabric of the existing. As space is a historically specific product, it is necessary to analyze and understand the processes which have led to its current form. The following sections will map the urban history of Birmingham, tying together the larger currents that gave rise to the city with the smaller eddies that formed the basis of everyday life at a given time. This analysis provides a basis for understanding the contemporary context of Birmingham and provides the grounds for a response to these conditions.



*fig. 23. Aerial Photo of Birmingham, 1907*

## Founding: Speculation and Industrial Production

The city of Birmingham was founded in the reconstruction-era South as a speculative real estate venture after the discovery of all the necessary materials for iron and steel production in one geographical area (figure 24). The Elyton land company purchased a large swath of land in the Jones Valley and laid out rail lines that would transport raw materials and industrial products, and around which the city would be constructed (figure 25).<sup>1</sup> The early city was oriented perpendicularly to the steep topography of Red Mountain to the south and Sand Mountain to the north (figure 26). The city was planned as a major industrial center that relied on the cheap labor of poor rural whites and newly freed black workers.<sup>2</sup>

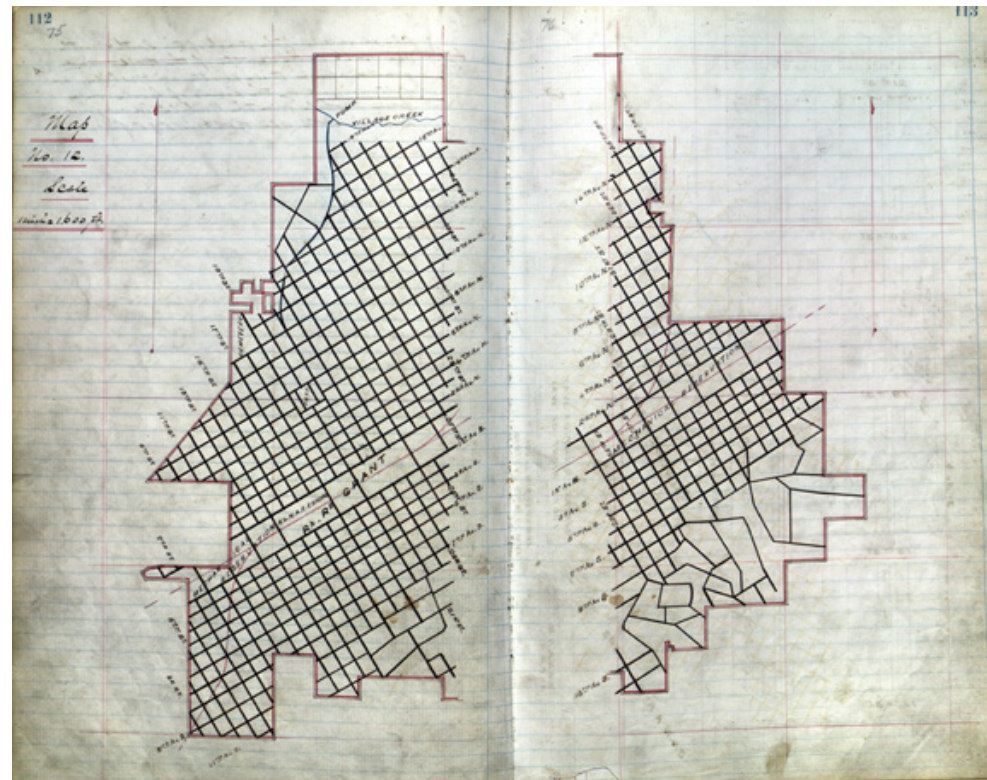
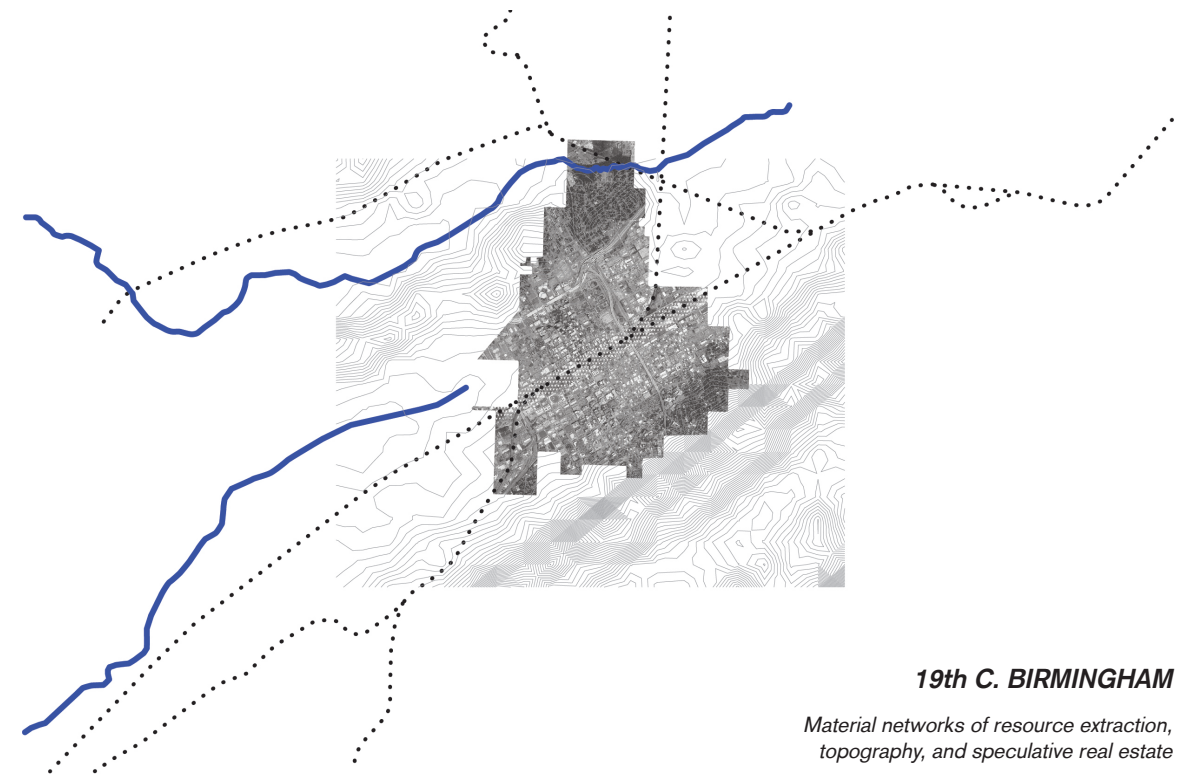


fig. 24. Original Survey of Birmingham. Elyton Land Company, 1873

<sup>1</sup> Caldwell, H. M. History of the Elyton Land Company. Caldwell-Garber Company, 1892.

<sup>2</sup> Kelly, Robin D. G. Hammer and Hoe: Alabama Communists During the Great Depression. The University of North Carolina Press, 1990.



19th C. BIRMINGHAM

Material networks of resource extraction, topography, and speculative real estate

fig. 25. Early Aerial Map of Birmingham  
fig. 26. Mapping, Author.

Despite the generally poor conditions the city provided for most people in their everyday lives, it still represented something more than what the countryside had to offer, bringing people together from the rural black belt areas of the state in search of opportunity (figure 27). Large industrial operations and small-scale speculators and builders produced housing for the working class, often as shotgun houses and Foursquare cottages (figure 28).<sup>1</sup> This housing was substandard, oftentimes with one family occupying each room of the house.

Despite these conditions, the shotgun house does provide spatial patterns as a specific type situated in the context of the American south (figure 29). Their narrow, linear form is open to the exterior on multiple sides in each room, allowing for cross ventilation. The proximity to neighbors provides much-needed shade to adjacent buildings, and the extension of the porch into the public realm creates opportunities for social interaction. The single-room width plan is often extruded the length of the lot, leaving a small rear yard. The generic, repeated spaces of the house open themselves to appropriation by the occupant, producing difference through repetition.



fig. 27. *Environments of Everyday Life In Early Birmingham*

*The working class lived in close proximity to polluting industries, minimal homes were provided as a form of social control, but still people came from the countryside for work*

<sup>1</sup> New South Associates, and John Milner Associates. U.S. Army Corps of Engineers, 1989, pp. 1-168, *More Than What We Had: An Architectural and Historical Documentation of the Village Creek Project Neighborhoods*, Birmingham, Alabama.

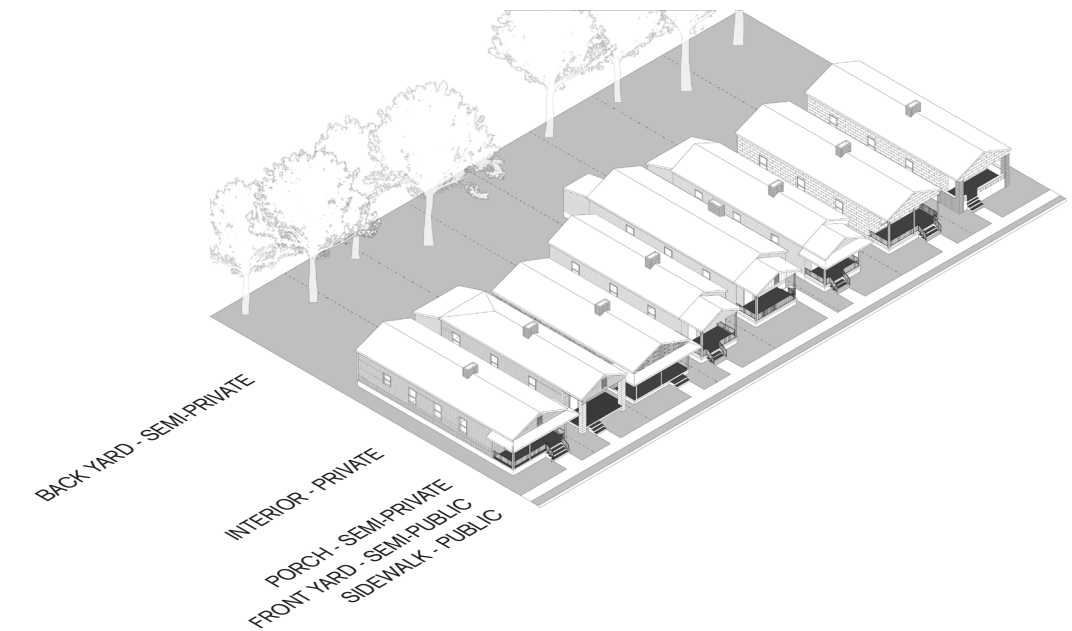
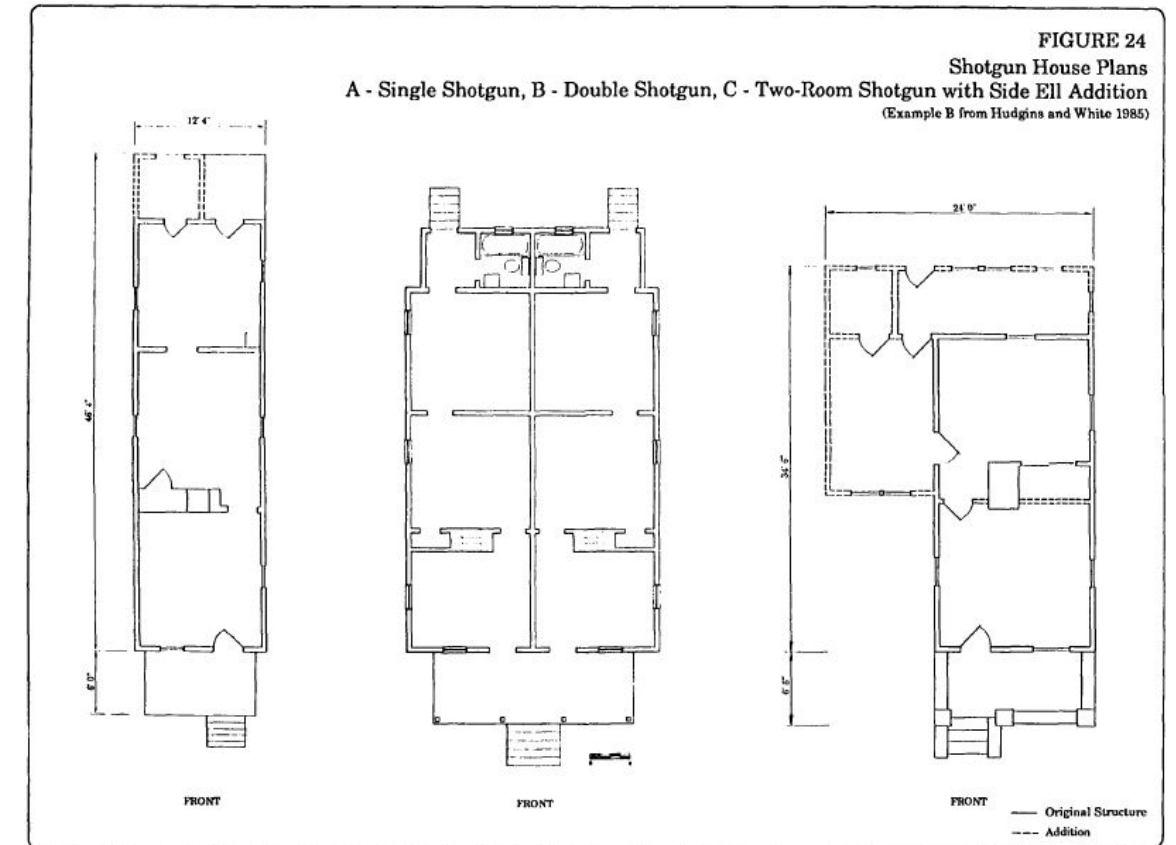


fig. 28. *Typ. Shotgun House Plans. 'More Than What We Had...'*, Army Corps of Engineers, 1989.

fig. 29. *Diagram, Existing Shotgun Houses. Author.*



*fig. 30. Interior of typical working class dwelling*

### **Exodus: Suburbanization and Urban Renewal**

Like many other cities in America, the interstate highway system was a major force that shaped the space of the city in the 20th century (figure 31). New material networks were overlaid on the existing networks of rail lines and topography, leading to further fragmentation of the city's neighborhoods (figure 32). The highway system reinforced the legacy of racial zoning as a spatial manifestation of legal documents that forced Birmingham's black residents into discriminatory spaces (figures 33 and 34).<sup>1</sup> The same highway network, along with federal lending policies, created the conditions for suburbanization which led to uneven quality of development (figures 35 and 36).



*fig. 31. Birmingham, 1972.*

<sup>1</sup> Connerly, Charles E. "The Most Segregated City in America": City Planning and Civil Rights in Birmingham, 1920-1980. University of Virginia Press, 2013.

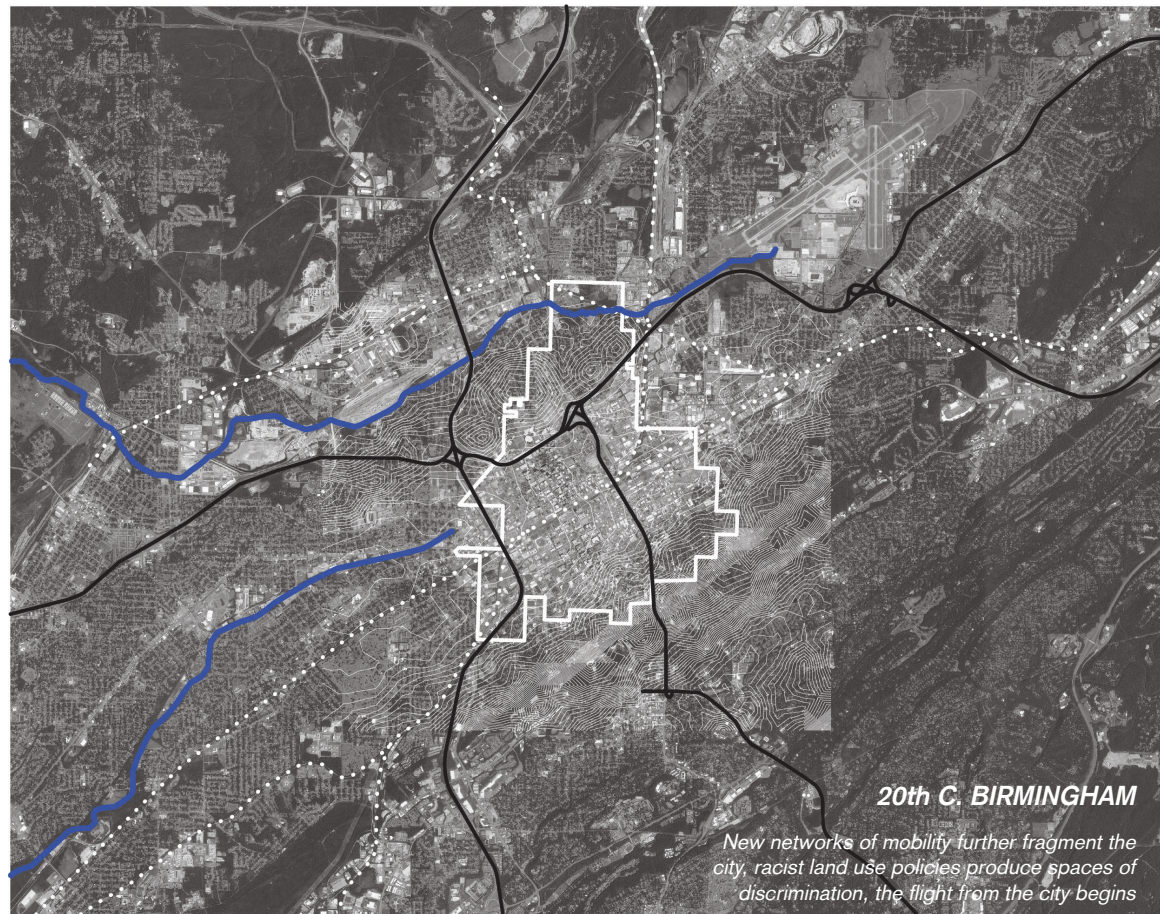


fig. 32. Mapping. Author.

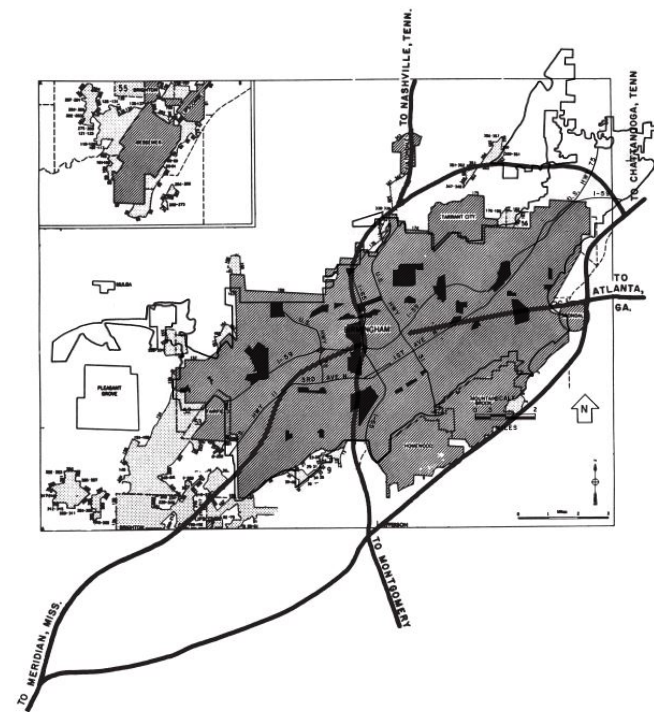
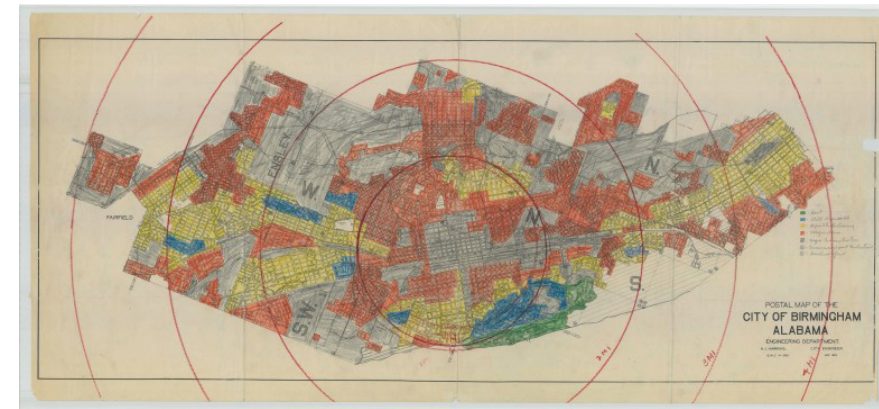


fig. 33. Racial Zoning Map

fig. 34. Proposed Highways Overlaid on Predominantly Black Neighborhoods

fig. 35 and 36. Suburbanization, drive-up storefronts with parking lots along arterials.

Along with the highway system, this period also saw the demolition of historic urban fabric for housing projects designed as distinctly inward-looking insertions in the city (figures 37 and 38). Market-driven development took a similar form, characterized by similarly inward-looking developments such as motor court apartments (figures 39 and 40). These developments, while auto-centric, produced a positively defined shared space between the linear forms, themselves often produced by the extrusion of a single unit type (figure 41).

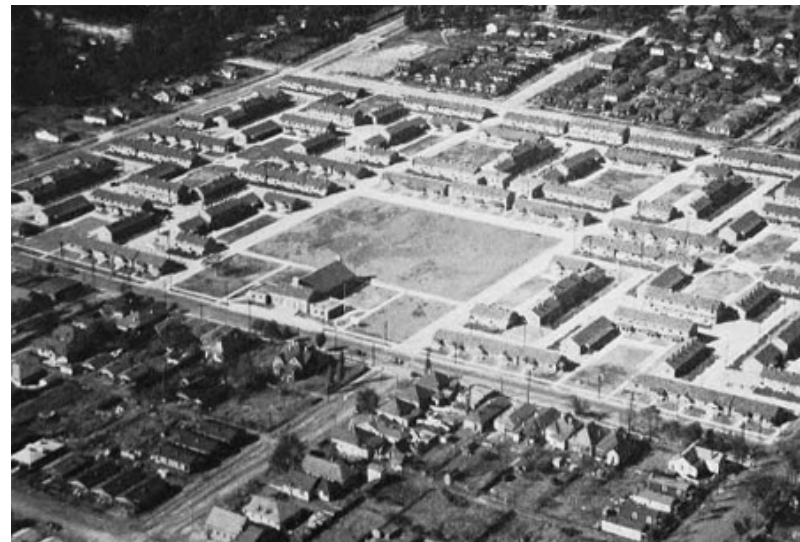


fig. 37 and 38. Typical urban renewal construction in Birmingham.

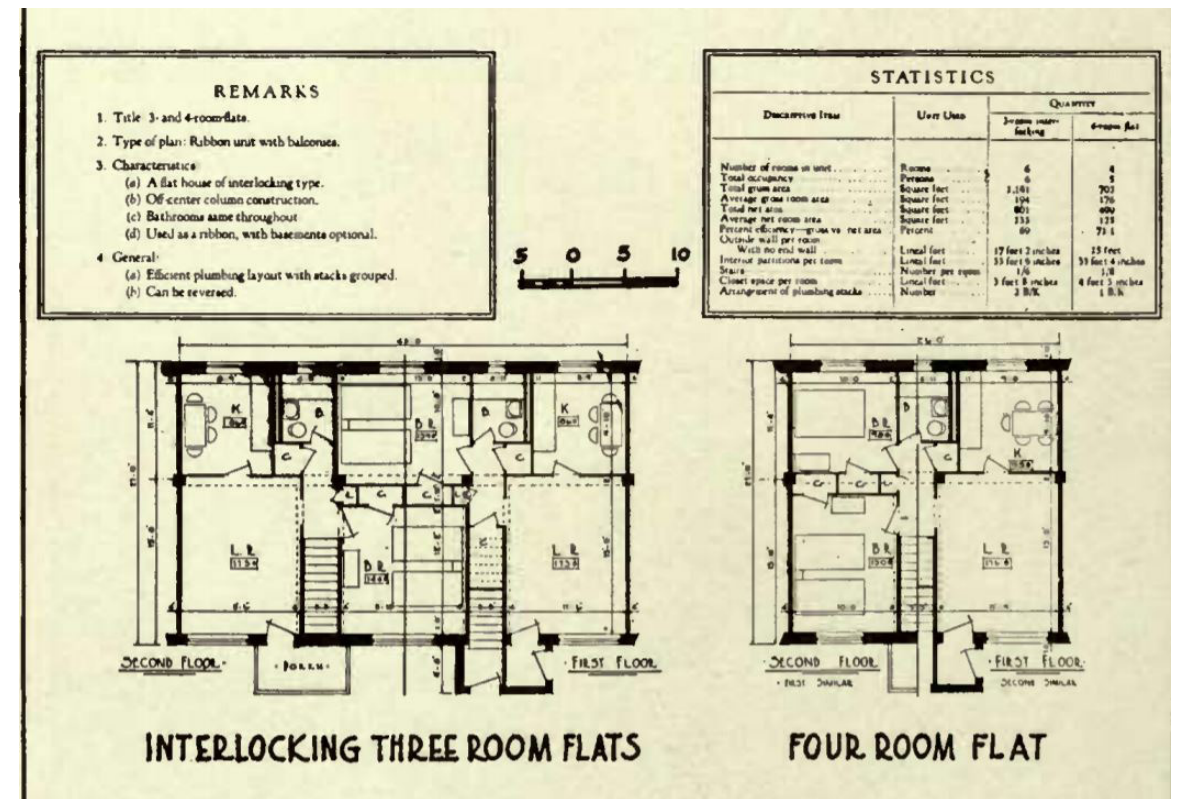


fig. 39. Typical motorcourt apartments, Birmingham.

fig. 40. Typical motorcourt apartments, Birmingham.

fig. 41. Standardized plans for post-war housing construction in the US.



fig. 42. Aerial photo. Birmingham, 2010.

### Explosion-Impllosion: Exurbanization and Enclaves

While industrial production still plays an important role in Birmingham's identity, deindustrialization in the late 20th century further hastened the decline of the city and the differential rate of development of its in-town neighborhoods versus its inner and, later, outer suburbs (figure 42). In the two decades leading up to the turn of the century, the city began a speculative annexation campaign in an attempt to stem its population decline, secure water rights, and capture tax revenue from large-scale projects such as high-end shopping centers along interstate corridors (figure 43).<sup>1</sup>

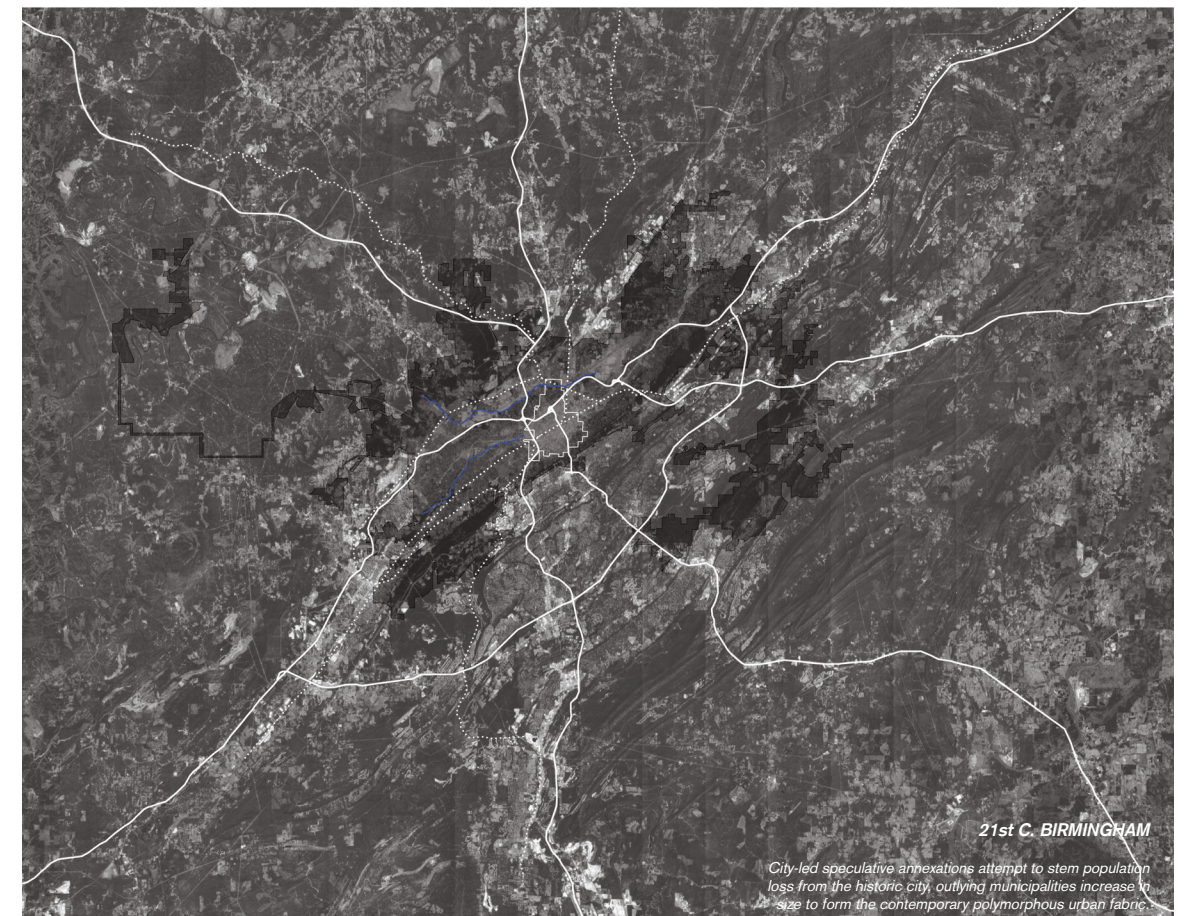
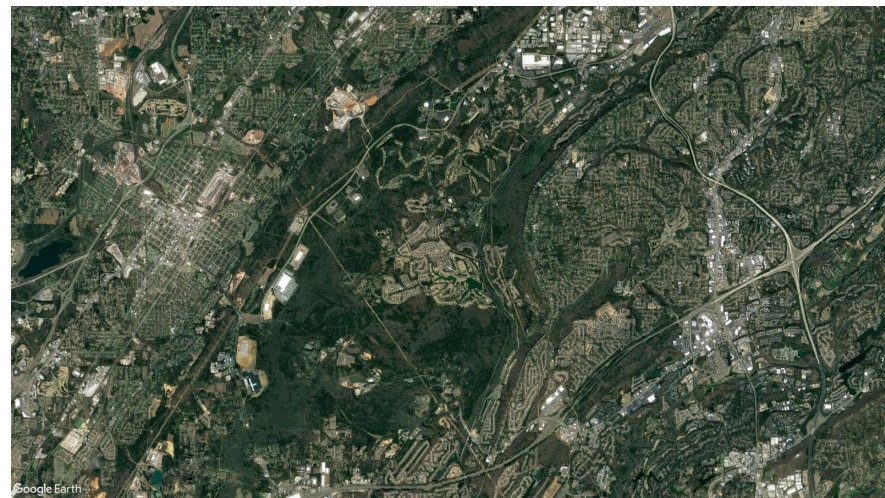


fig. 43. Mapping. Author.

<sup>1</sup> Connerly, Charles E. "'One Great City' or Colonial Economy? Explaining Birmingham's Annexation Struggles, 1945-1990." *Journal of Urban History*, vol. 26, no. 1, 1999, pp. 44-73.



*fig. 44. Downtown highway expansion.*



*fig. 45. Satellite view, exurban annexation in Oxmoor Valley.*



*fig. 46. Typical development in Oxmoor Valley.*

This has spurred exurban development in the Birmingham metropolitan area, stretching the city's ability to provide resources and services, by seeing to the needs of neighborhoods farther away from its historic core at the expense of long-neglected inner neighborhoods (figures 44, 45, and 46). At the same time, the city has started to undergo downtown revitalization efforts, with large portions of the city being reimagined as entertainment districts and privileged enclaves of consumption (figures 47 and 48). This has further widened the gap in opportunity available to residents of different neighborhoods in the city.



*fig. 47. Rendering, Proposed Loft Conversion and Entertainment District.*



*fig. 48. Rendering, Proposed Southtown Public Housing Redevelopment*

2021 marks 150 years since Birmingham's incorporation, and its development over time has produced the space of the city in its current form. The city is currently a highly differentiated space, fulfilling its role as a social resource in some areas with other areas in varying states of decline, with high vacancy rates, empty lots, and absentee landlords. Birmingham recently started its comprehensive planning process for the first time in decades. This process is attempting to connect a comprehensive city plan to a series of neighborhood framework plans. Housing quality and affordability is a frequently-stated concern for long-time residents in these neighborhoods, yet the city does not have an explicit affordable housing strategy. While the city technically has a sufficient quantity of housing units, when considered as a social form, this housing does not align with its social content. The city's housing stock is largely composed of detached single-family homes, while the traditional nuclear family makes up a smaller percentage of the city's population than ever.<sup>1,2</sup>

At the same time, very little of the city's land allows for collective housing, with future land use patterns proposing new collective housing only where it currently exists. This artificial constraint of housing options has led to an increase in the value of land zoned for multifamily residential construction, while the average value of single-family parcels remains very low in most neighborhoods. Furthermore, the comprehensive planning process does not include a single mention of climate change or the city's plan for dealing with its consequences.

---

<sup>1</sup> "Birmingham Comprehensive Plan." Birminghamal.gov, 2017, [www.birminghamal.gov/work/birmingham-comprehensive-plan/](http://www.birminghamal.gov/work/birmingham-comprehensive-plan/).

<sup>2</sup> "Titusville Community Framework Plan." Birminghamal.gov, 2015, [www.birminghamal.gov/wp-content/uploads/2017/08/Titusville-Community-Framework-Plan\\_final.pdf](http://www.birminghamal.gov/wp-content/uploads/2017/08/Titusville-Community-Framework-Plan_final.pdf).

## 5. Titusville: Neighborhood Analysis and Site Selection

This project looks at Titusville, a representative neighborhood in Birmingham, to propose a collectively-owned model of land ownership and development. The collective housing proposal seeks to translate the shared ownership of land and the individual and collective rhythms of dwelling into an architecture of home. Furthermore, the proposal will be developed as a pattern that can be applied to vacant parcels in the neighborhood to revitalize the neighborhood for the benefit of both current and future residents, producing a new space within the existing urban fabric with the potential to ripple outward and impact the city as a whole.

Titusville is a neighborhood in southwest Birmingham. Despite its physical proximity to the University of Alabama-Birmingham (UAB), a major employment center, and the downtown core, it has experienced decades of neglect. Titusville has hard borders on three sides formed by two rail lines, an interstate, and Elmwood Cemetery (figures 49 and 50). The neighborhood developed in a piecemeal fashion over time, leading to a convergence of subdivisions and grids as well as a diverse land use pattern, with collective housing and single-family housing scattered around 6th Ave S, the commercial core which bisects the neighborhood. The neighborhood contains important and well-loved social infrastructure, but it is not significantly populated to support the full richness of the human experience that the city represents.<sup>1</sup>

---

<sup>1</sup> "Titusville Community Framework Plan." Birminghamal.gov, 2015, [www.birminghamal.gov/wp-content/uploads/2017/08/Titusville-Community-Framework-Plan\\_final.pdf](http://www.birminghamal.gov/wp-content/uploads/2017/08/Titusville-Community-Framework-Plan_final.pdf).



Titusville is characterized by relatively hard borders on three sides and a collision of different grids and subdivisions. The neighborhood is bisected into northern and southern halves by the 6th Ave commercial strip. The historic land use pattern is diverse, with multifamily housing sprinkled into single family fabric.



Despite its proximity to the downtown core and major employment centers, the landscape of Titusville has been allowed to deteriorate at the expense of its current residents. At the same time, its proximity and low property values have started a process of speculative land acquisition.

fig. 49. Neighborhood analysis, author.

fig. 50. Neighborhood analysis, author.

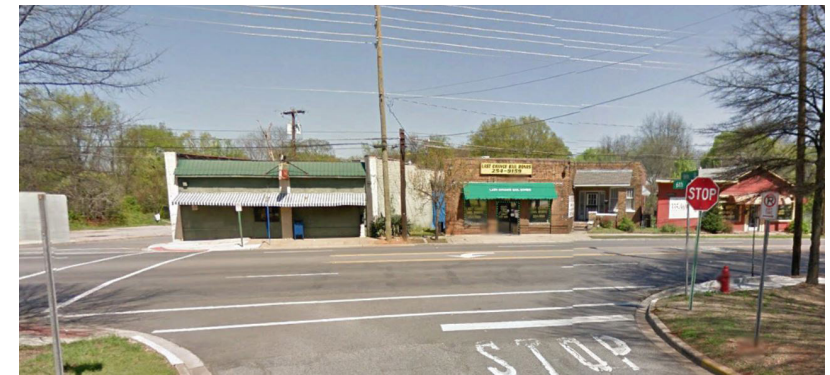


fig. 51. Vacant storefronts on 6th Ave S in Titusville

fig. 52. Titusville Branch Library

fig. 53. Vacant residential lots on typical street in Titusville

fig. 54. Memorial Park

Due to the historical lack of investment and following the larger trends of the city, Titusville's population has declined over time. Houses have been left vacant as families have left the neighborhood. Over half of the current residents are renters who occupy houses in varying states of disrepair owned by absentee landlords. As a consequence of the city's historical development, 27% of parcels in Titusville are vacant, with the average property value sitting below \$60,000.

This has led to a large quantity of land sitting in public hands through the local land bank, a newly established authority in the city. Vacant, tax-delinquent properties are seized by the city and placed in the authority of the land bank. These properties are then sold to neighbors, investors, or developers. Due to the large number of vacant properties, in addition to several large city-owned properties scheduled for redevelopment, a large amount of land in Titusville is available for change. This condition has set the stage for the neighborhood to undergo significant change over the next several years.



fig. 55. Blight concentration

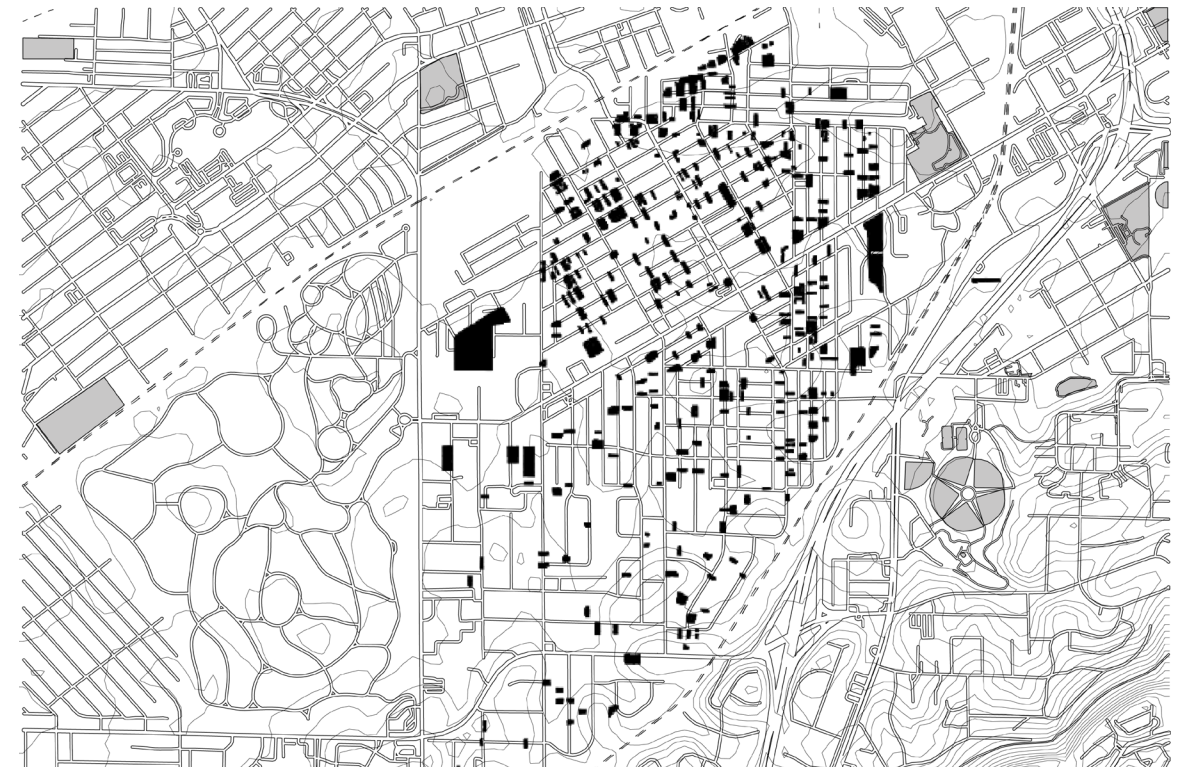


fig. 56. Publicly-owned and land banked property

The project proposes the acquisition of land bank properties for community-owned housing development. These land bank parcels are sold for around \$5,000 and require the buyer to improve the property within a short time after taking ownership.<sup>1</sup> Despite the relatively low initial investment for the land, the costs of improvement put this possibility out of reach for a majority of the current residents of the neighborhood who are renters with low to moderate incomes. As a result, a majority of land bank-eligible properties in the neighborhood have been purchased by a handful of speculative investors.

A collective entity such as a community land cooperative or permanent real estate cooperative lowers the barrier to entry through a collective economy, opening the development process to community members in addition to member-tenants, giving the community the ability to shape itself. By removing the land from the speculative market and building housing on it, it is allowed to fulfill its use-value as a space of dwelling.

### Site Selection

The project site is assembled from four publicly-owned, vacant parcels on Delta St S, one block south of the commercial core (figures 57 and 58). The site sits at the south end of the block, with alley access to the south and west. Surrounding development includes single-family homes, historic shotgun homes, small single-level apartments, and a church (figures 59-62).

<sup>1</sup> Birmingham Land Bank Authority, [birminghamlandbank.org/](http://birminghamlandbank.org/).

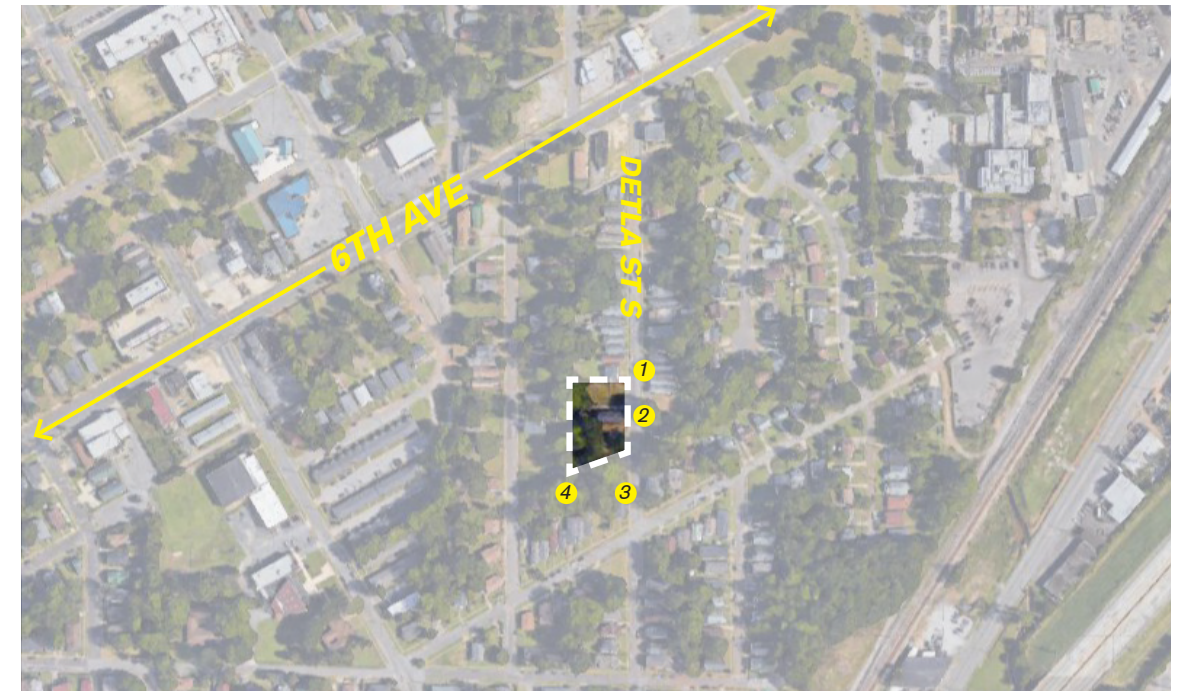


fig. 57. Project site



fig. 58. Project site, aerial

fig. 59-62 (Opposite). Site context photographs

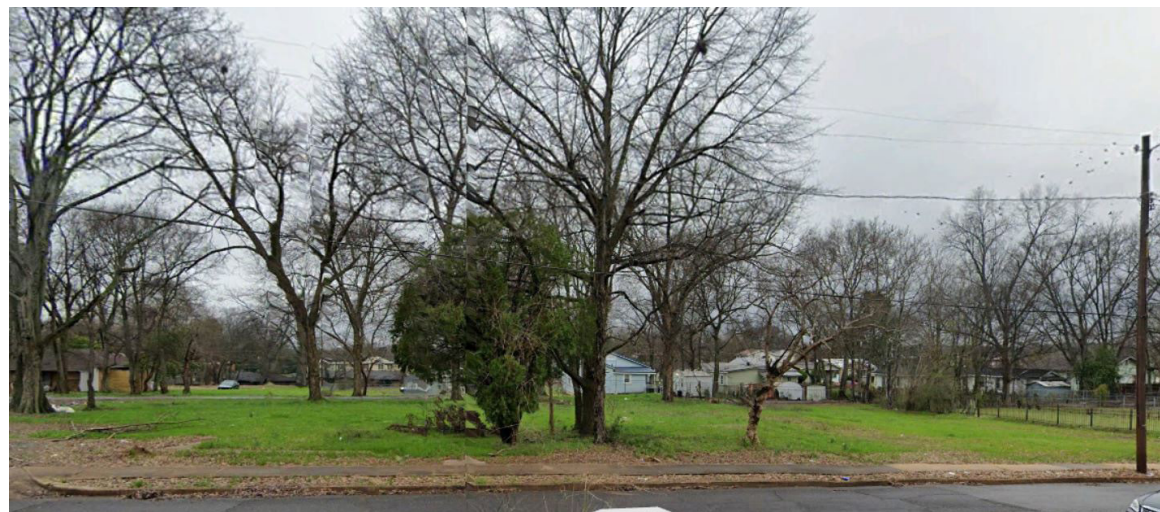
1



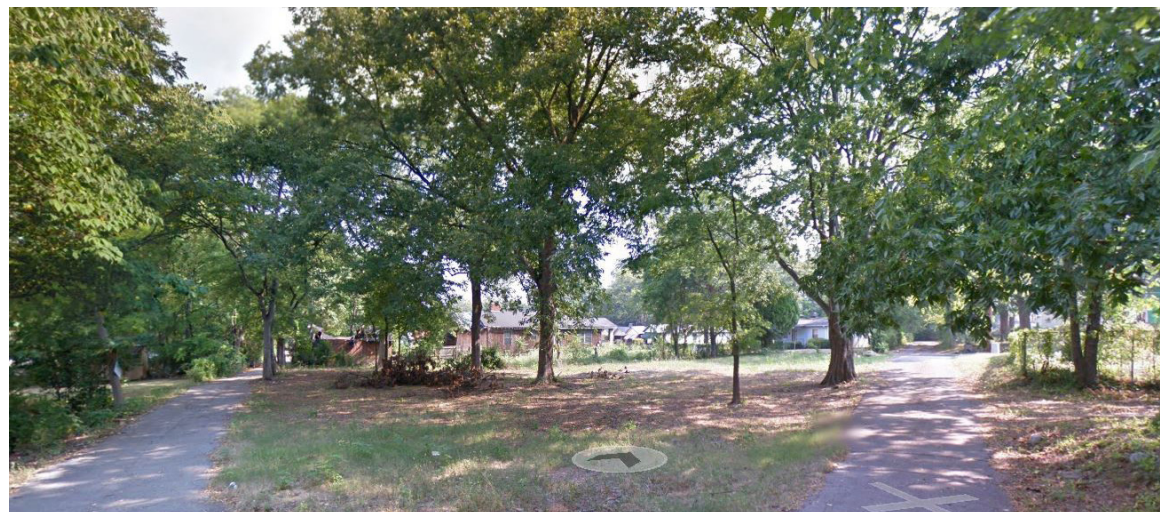
3



2



4





*fig. 63. Perspective view from across the street.*

## 6. Project Design: Repetition and Difference

The collective dwelling is designed as a negotiation between individual and collective rhythms. Personal interior spaces of dwelling blend into shared, exterior collective spaces with each enriching the other. The project is designed around scales of shared, collective space that respond to the rhythms of community—of coming and going, gathering, working, relaxing, and playing. The communal spaces are framed on the site through the form and placement of the individual dwellings which themselves respond to the rhythms of everyday life—biological and functional rhythms, natural rhythms of climate and weather, and social rhythms of the household and the identity of the family. Much like the ideas of space and rhythm or Van der Laan’s notion of cell—court—domain, the collective and individual spaces are equally important to the architecture and the social life that it frames.



*fig. 64. Base plan configuration*

Each dwelling begins with a basic spatial module that satisfies the functionally specific biological rhythms of dwelling, including a kitchen and bathroom (figure 64). This space is supplemented by an additional room that can be appropriated for the occupant’s specific needs. The basic module responds to the natural rhythms of life in the south, with a recessed, shaded entry porch with sliding doors that allow the kitchen to expand and contract seasonally (figure 65). The additional room also opens to a porch that engages with the collective realm of the sidewalk, or the shared rear yard depending on its orientation on the site. This basic module forms an interface of rhythmic interaction, responding to natural rhythms of day, night, and seasonality; social rhythms of greeting, meeting, and exchange; and personal rhythms of comfort and sociability (figure 66).



*fig. 65. Base unit interior*

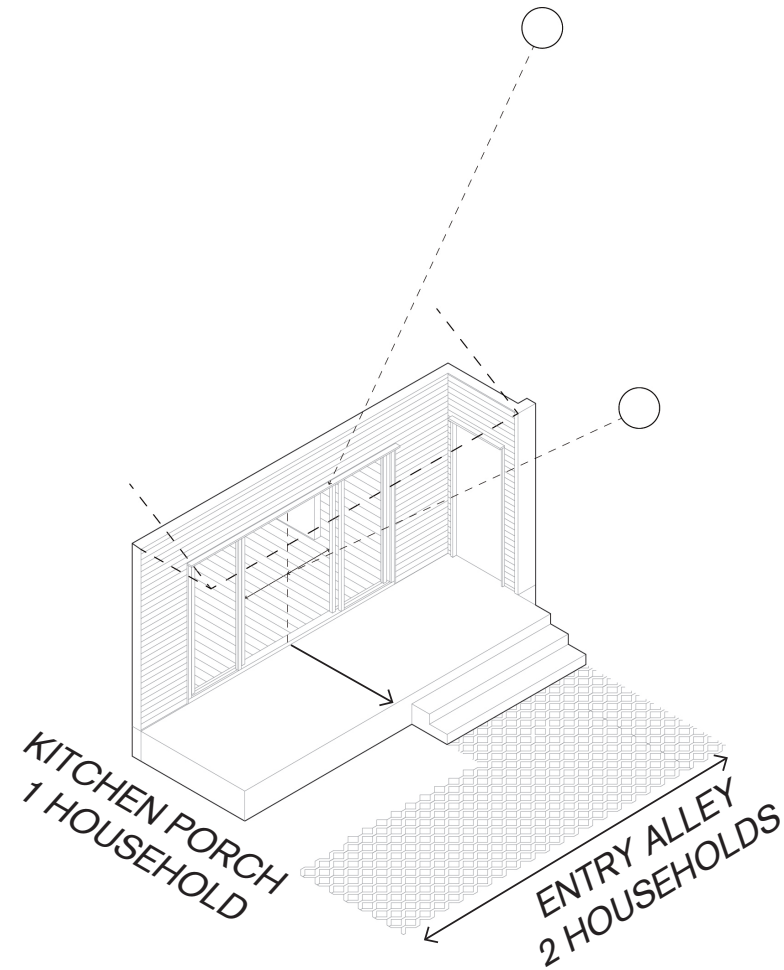


fig. 66. Porch and alley as rhythmic interface.

Variation in dwelling sizes occurs additively, with intermediary rooms connected to the base module. These functionally generic rooms connect two dwellings, with premade openings from room to room. These rooms gain specificity through their spatial relationship to the dwelling as a whole, and also lend themselves to appropriation by the dweller. This system allows the two units to exist in a metabolic relationship that responds to the temporally extended rhythms of dwelling such as changing household composition over time, supporting a diversity of household configurations that challenges the traditional nuclear family as a normative type (figure 62).



fig. 67. Plan variations through repetition



fig. 68. Plan types

The spatial pattern of the dwelling is configured into three types to produce a variety of dwelling sizes and potential configurations (figure 63). Two types employ the dual base module with either two or three additional rooms which connect each end. The third type consists of a fixed layout with the central room carved away to define a shared outdoor space flanked by a base module with an additional second-story room on one side and a base module on the other side (figure 64).

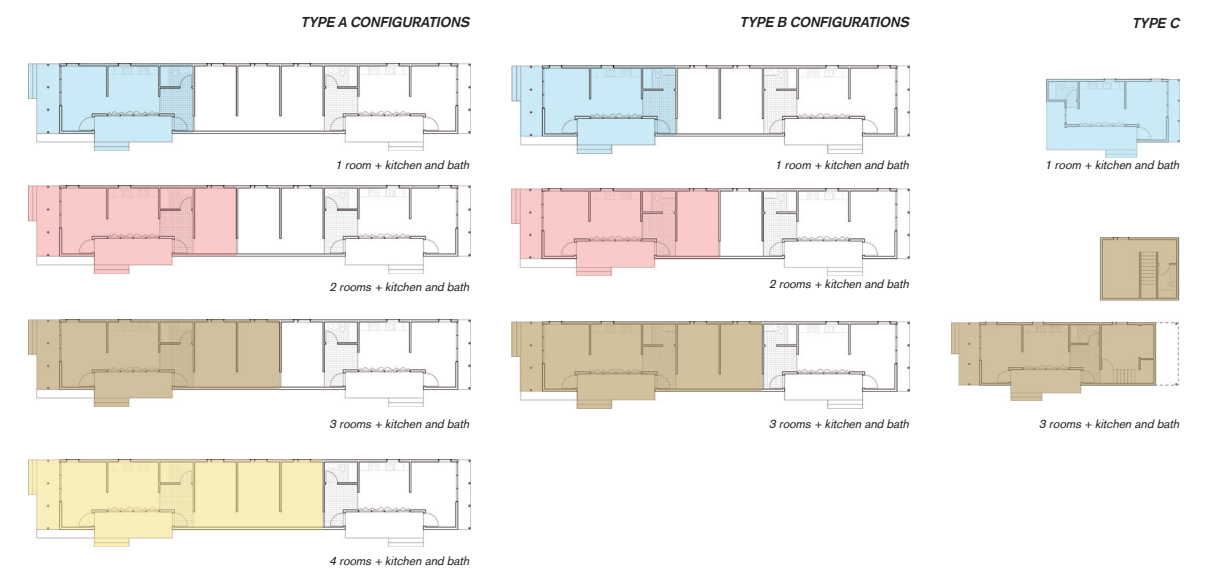


fig. 69. Possible unit configurations through types

The subtle diversity of the architecture of the dwellings is composed on the site to produce scales of collectivity through shared outdoor spaces (figure 70). These collective spaces serve as a complement to the dwellings, bringing their individuality into a productive relationship with a larger communal rhythm (figure 71).

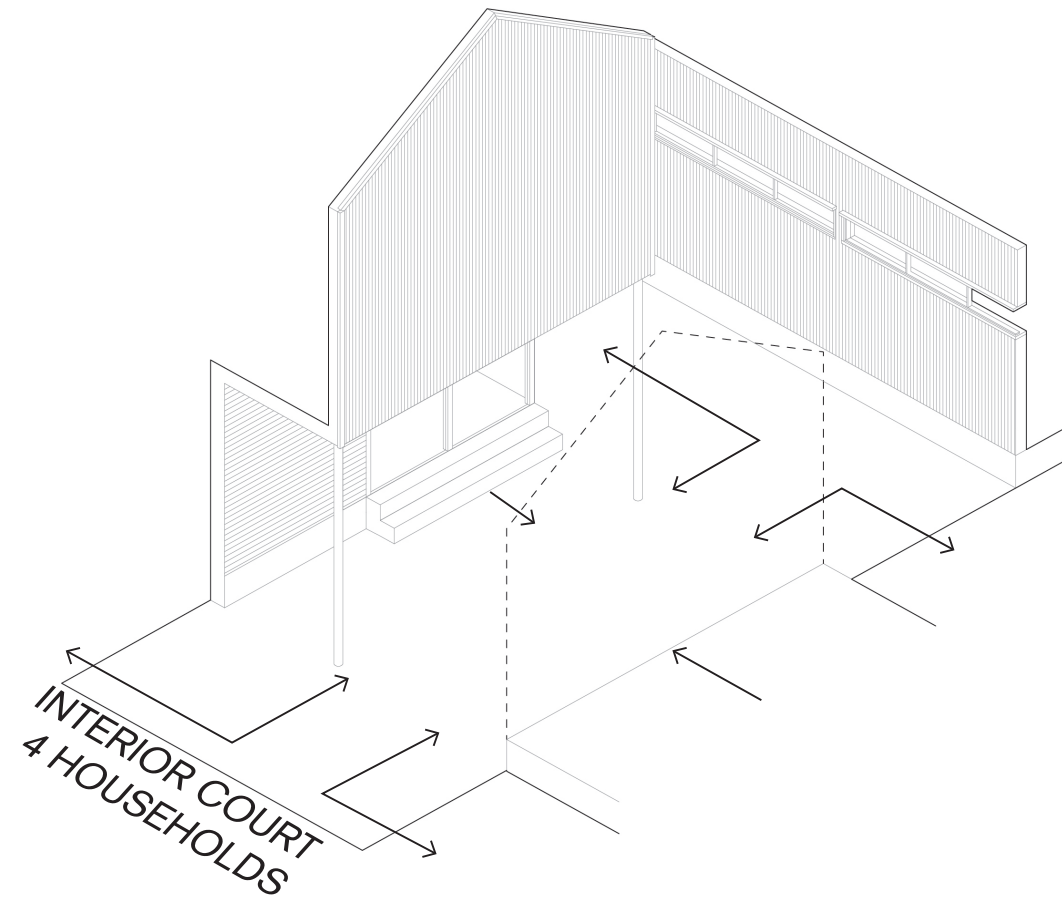


fig. 70. Possible unit configurations through types

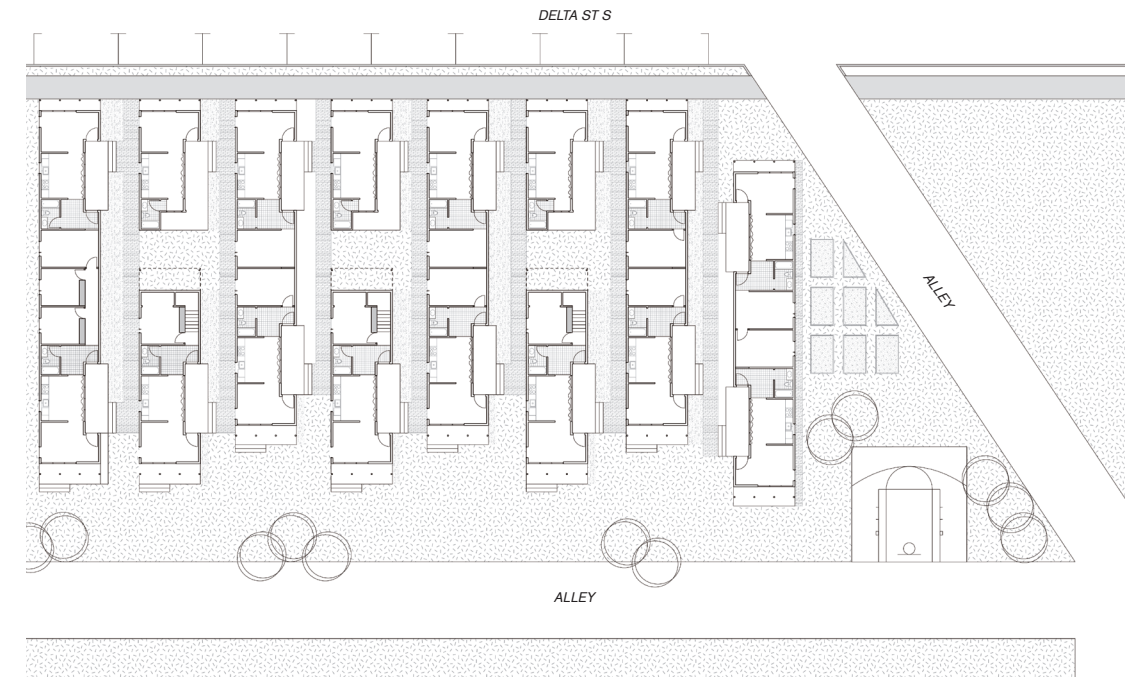


fig. 71. Site plan



Taking inspiration from the historical development of the shotgun houses and motor court apartments in the neighborhood, the dwellings are arranged on the site to positively define collective exterior spaces at a variety of scales. The dwellings are directly engaged with the public realm of the sidewalk by the traditional front porch, and access occurs by filtering through the interstitial spaces shared by two households (figure 72). At mid-block depth, intimate courtyards are framed by entry alleys and dwellings and are shared among four households (figure 73). At moments where the individual and collective rhythms of the dwelling are woven together, the simple yet durable metal-clad volume is carved away to reveal a warm, wood-clad space that connects interior and exterior. The entry alleys and back porches filter into a shared backyard which provides a larger collective space for the residents to socialize and play (figure 74). The development responds to the irregular Titusville grid by using the "leftover" space of the lot as a community garden and basketball court, providing a shared resource to the neighborhood (figure 75).



*fig. 72. View into shared entry alley*



*fig. 74. Shared rear yard*



*fig. 73. Intimate interior court*



*fig. 75. Community amenity space*



**DWELLING  
INTERIOR** ——— **PORCH** ———

————— **DWELLING  
INTERIOR** ———

— **SHARED INTERIOR COURT** —

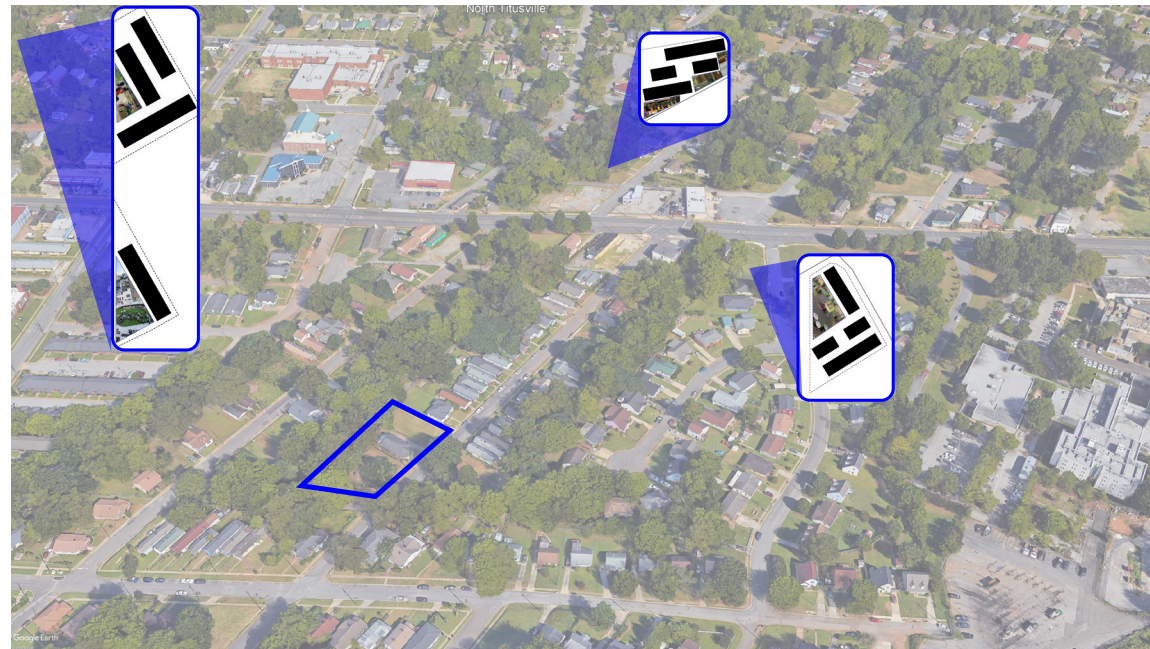
————— **DWELLING  
INTERIOR** ———

*fig. 76. Section perspective, interwoven spaces and rhythms.*

## Expanding Outward

The architecture produces a spatial pattern that takes a different attitude toward flexibility; rather than a large open plan which can be configured into different arrangements, the dwellings are organized into a series of sequential spaces, each with a unique relationship to both the interior and exterior created by its relationship to adjacent rooms, as well as its position on the site. This pattern of flexibility can be applied to other sites in the neighborhood and throughout the city (figure 77). The arrangement of spaces on the site responds to its unique context, with interstitial and leftover spaces allowed to function as community assets.

Over time, this spatial pattern introduces a new rhythm into the fabric of the neighborhood, one that gives people the space to live according to their rhythms, as part of a collective rhythm. This qualitative change in the character of dwelling can incrementally accumulate, quantitatively impacting the neighborhood by supporting the diversity of functions, networks of interaction and exchange, and life rhythms of the city (figure 78). This process produces a new space within the existing space, helping it to fulfill the promise that the city represents and to which all people have a right.



*fig. 77. Possible future sites for pattern application*



*fig. 78. Future rhythms revitalize the historic fabric of Titusville.*

## **Conclusion: New Horizons**

This thesis argues that space, the city, and the dwelling are not static forms but historically contingent social products. While the current state of the built environment is one of inequality and discrimination, this thesis has shown that the things we sometimes understand as fixed and immovable are open to change. Rhythm has been used as a tool for understanding both how space informs action, as well as how new spaces can be produced through the introduction of new rhythms.

Utilizing this framework, the space of the city of Birmingham, Alabama can be understood as being produced through the interaction of political, economic, social, and natural rhythms and the rhythms of everyday life. This analysis was necessary to understand the complexities of the city in its contemporary context. Working in these conditions, the project tested how implementing collective models of ownership, development, and dwelling can lead to the production of new spaces with more equitable and emancipatory potential within the city.

Space is not an empty container but a social product, and rhythm is the concrete use of space and time through human activity. The political kernel of architecture and the city is found in the homogenization of space and imposition of a specific rhythm by those with economic, political, and social power. Struggling for new spaces and new rhythmic possibilities in the present is the utopian yet necessary responsibility for architects who wish to change the normal order of things, not simply as designers but as people with multifaceted and complex identities who

exist in a shared collective realm. In this context, the most important lesson learned from this thesis is that one cannot stay in the abstract space of architectural ideas and representations for long and hope to change anything. We need to take these ideas into the messy material world, organize with others, and struggle toward a new horizon.

## Bibliography

- Barthes, Roland. *How to Live Together: Novelistic Simulations of Some Everyday Spaces*. Translated by Kate Briggs, Columbia University Press, 2012.
- “Birmingham Comprehensive Plan.” Birminghamal.gov, 2017, [www.birminghamal.gov/work/birmingham-comprehensive-plan/](http://www.birminghamal.gov/work/birmingham-comprehensive-plan/).
- Birmingham Land Bank Authority, [birminghamlandbank.org/](http://birminghamlandbank.org/).
- Caldwell, H. M. *History of the Elyton Land Company*. Caldwell-Garber Company, 1892.
- Connerly, Charles E. “The Most Segregated City in America”: City Planning and Civil Rights in Birmingham, 1920-1980. University of Virginia Press, 2013.
- Connerly, Charles E. “‘One Great City’ or Colonial Economy? Explaining Birmingham’s Annexation Struggles, 1945-1990.” *Journal of Urban History*, vol. 26, no. 1, 1999, pp. 44–73.
- “Figures, Doors, Passages.” *Translations from Drawing to Building*, by Robin Evans, Architectural Association Publications, 1997, pp. 55–92.
- Ghirardo, Diane Y. “Manfredo Tafuri and Architecture Theory in the U.S., 1970-2000.” *Perspecta*, vol. 33, 2002, pp. 38–47.
- Ghirardo, Diane. “Introduction.” *Out of Site: A Social Criticism of Architecture*, edited by Diane Ghirardo, Bay Press, 1991, pp. 9–16.
- Hertweck, Florian, and Marot Sbastien. *The City in the City: Berlin: a Green Archipelago: a Manifesto (1977) by Oswald Mathias Ungers and Rem Koolhaas with Peter Riemann, Hans Kollhoff, and Arthur Ovaska*. Lars Muller Publishers, 2013.
- Jameson, Fredric. “Architecture and the Critique of Ideology.” *Architecture | Criticism | Ideology*, edited by Joan Ockman, Princeton Architectural Press, 1985, pp. 51–87.
- Kelly, Robin D. G. *Hammer and Hoe: Alabama Communists During the Great Depression*. The University of North Carolina Press, 1990.
- Lefebvre, Henri. *Rhythmanalysis: Space, Time and Everyday Life*. Translated by

Stuart Elden and Gerald Moore, Continuum, 2004.

- Lefebvre, Henri. *The Production of Space*. Translated by Donald Nicholson-Smith, Blackwell Publishers Ltd, 1991.
- New South Associates, and John Milner Associates. U.S. Army Corps of Engineers, 1989, pp. 1–168, *More Than What We Had: An Architectural and Historical Documentation of the Village Creek Project Neighborhoods*, Birmingham, Alabama.
- Schmid, Christian, and Christian Schmid. “Theory.” *Switzerland: An Urban Portrait*, by Roger Diener et al., Birkhauser, 2014, pp. 163–173.
- Tafuri, Manfredo. *Architecture and Utopia: Design and Capitalist Development*. MIT Press, 1976.
- “Titusville Community Framework Plan.” Birminghamal.gov, 2015, [www.birminghamal.gov/wp-content/uploads/2017/08/Titusville-Community-Framework-Plan\\_final.pdf](http://www.birminghamal.gov/wp-content/uploads/2017/08/Titusville-Community-Framework-Plan_final.pdf).
- Tygstrup, Frederik. “Idiorrhythmy.” *Living Together: Roland Barthes, the Individual and the Community*, edited by Knut Stene-Johansen et al., [Transcript], 2018, pp. 223–230.
- Van Der Laan, Dom Hans. *Architectonic Space: Fifteen Lessons on the Disposition of the Human Habitat*. E. J. Brill, 1983.