CONSTRUCTING PROFESSIONAL KNOWLEDGE: THE NEIGHBORHOOD UNIT
CONCEPT IN THE COMMUNITY BUILDERS HANDBOOK

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Regional Planning
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2009

Urbana, Illinois

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ABSTRACT

This dissertation concerns the diffusion of Clarence Perry's Neighborhood Unit concept

between 1929 and 1969. It is grounded in a discourse analysis of the use of the Neighborhood

Unit concept in the literature of twenty professional and governmental organizations. In the

middle decades of the twentieth century, the Neighborhood Unit was influential primarily in

advancing the changes in development practices advanced by Adams and institutionalized by the

FHA: planning and development by district rather than by lot, provisioning of infrastructure

concurrent with subdivision, inclusion of community functions in residential development, and a

hierarchical street system with arterial roads at the unit's edge. Other aspects of the concept –

Perry's advocacy of home owners associations, for instance – had less of an impact.

I argue that a pragmatic view of professional knowledge is necessary to understand this history.

A pragmatic view of knowledge helps explain the Neighborhood Unit concept's roles as a

boundary object communicating information across professional communities and as a *lever of*

change catalyzing the adoption of new practices, regulations, and ways of thinking. Perry's

Neighborhood Unit concept was a leading idea in urban planning and development in America in

the twentieth century, but it was less a paradigm then a *leading meme* that evolved along with the

practices it addressed.

ACKNOWLEDGEMENTS

This project would not have been possible without the support of many people. Many thanks to my excellent advisor Emily Talen who read many versions of this work and offered wise advice with both patience and persistence. Also thanks to my committee members Lewis D. Hopkins, Varkki Pallatucheril and David Hays for their additional perspective, guidance and support. I would like to thank the Department of Urban and Regional Planning at University of Illinois at Urbana-Champaign for providing material funding in the form of teaching and research assistantships to support many years of dissertation research. Thanks also to the Department of Landscape Architecture / Regional and Community Planning at Kansas State University, Dan Donelin, and Stephanie Rolley, who supported the completion of my dissertation research while serving as a new faculty member in their department. This dissertation would not have been possible without the advice, support, patience, and encouragement of colleagues, advisors, friends, and family, and I am very appreciative to all of them for it.

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INTRODUCTION

An argument could be made that Clarence Perry's Neighborhood Unit concept was the most important idea in urban planning and development in twentieth century America. It was a guiding concept for post WWII suburban development (ULI 1947), for urban renewal (Perry 1933, 1939) and for the mortgage insurance programs of the Federal Housing Administration (FHA 1935c). By the 1960s, the concept was adopted by no less than eighteen professional and governmental organizations (Solow et.al. 1969). To Solow et al's list we might include CIAM (Dahir 1947) and more recently the Congress for the New Urbanism (Leccesse and McCormick 1999). In fact, the Neighborhood Unit was so ingrained in professional practices that even substantive knowledge not directly connected to the aims or principles of the Neighborhood Unit were presented in neighborhood terms, as in Frederick Adam's book for the American Public Health Association, a manual that was largely concerned with sanitation and infrastructure (Solow and Copperman 1947).

Clarence Perry's Neighborhood Unit concept was neither revolutionary nor wholly original. Published after six years of extensive research as part of the Regional Survey of New York and its Environs, the Neighborhood Unit was essentially Perry's synthesis of concepts from sociology, architecture, urban planning, and real estate development (Howard 1902, Perry 1914, Yeomans 1916, Unwin 1918, McKenzie 1923, Park et.al. 1925, Perry 1929b). It was not the only conception of neighborhood. Johnson (2002) reminds us that the architect William Drummond seems to have coined the term *neighborhood unit* a decade before Perry. Stein and Wright's Radburn model is often cited as a neighborhood unit model alongside Perry, particularly in urban

planning literature (e.g. Banarjee and Baer 1984). Other neighborhood models bear little resemblence to Perry's Neighborhood Unit (Dahir 1947, Ostrowsky 1970). But Perry's conception of the Neighborhood Unit was the prime example. It was Perry who synthesized various ideas, and Perry who most clearly linked the variety of principles contained within the Neighborhood Unit to the importance of thinking in terms of neighborhood. If Stein and Wright provided more detailed design principles with their superblocks and pedestrian ways, Perry provided a more pointed argument in favor of neighborhoods. The professional literature of the mid-twentieth century overwhelmingly credited Perry with inventing the Neighborhood Unit concept.

Neighborhood is a term that in some fashion has had meaning for a wide variety of cultures and places throughout history. In this sense it has an innate social logic. Clarence Perry's Neighborhood Unit concept was created by a particular person at a particular time and place, and was used by particular people: if the neighborhood is in some ways a universal idea, it gets defined and articulated in particular ways. In North America in the twentieth century, it was Clarence Perry's neighborhood unit concept that was the most important, most used articulation of neighborhood. This was not the case in Britain, for example, where planning and development has traditionally been geared more to town planning following Ebenezer Howard's Garden City idea. In many ways, this dissertation concerns the impact on professional practices of conceptualizing a near-universal concept – *neighborhood* – through a particular definition – *Perry's neighborhood unit*.

The Neighborhood Unit was (and is) not without criticism. Interest in the Neighborhood Unit was particularly strong immediately after World War II, when a flurry of articles both supported and criticized the Neighborhood Unit. Lewis Mumford (1954) was alternately supportive and ambivalent about the Neighborhood Unit, particularly as it fit with the larger project of the Regional Plan of New York. Catherine Bauer (1945) attacked it as a racist and elitist concept, particularly in the context of affordable housing and urban renewal. Reginald Issacs (1948, 1949a, 1949b) criticized the cellular nature of the Neighborhood Unit as unnatural and counter-productive. Though his criticism was not accepted by others at the time, it turned out to be fair. Many have questioned the sociological theory – of Cooley, Park, McKenzie and others – underpinning Perry's Neighborhood Unit and hence the neighborhood unit itself (e.g. Webber 1963). In other cases criticism of the Neighborhood Unit was more practical – Dyckman (1959) noted the difficulties that arose in trying to rigidly match a single elementary school to a single neighborhood unit as developments grow and change. Based on extensive survey research, Banerjee and Baer (1984) argue that residents simply do not percieve their surrounding environs as neighborhoods, and hence planners have misconstrued the nature of their work and *residential environment* would be a better, more accurate term.

Given this wide and varied criticism – criticism that has often had validity – it might seem strange that the Neighborhood Unit remains a commonly used concept in urban planning. Indeed, the emergence of New Urbanism in the nineties renewed interest in Perry's Neighborhood Unit concept, so that it is now more popular than at any time since immediately after World War II. Why is this? What about the Neighborhood Unit concept is so powerful?

What causes ideas like the Neighborhood Unit to remain popular despite criticism and changing times?

For the most part our field has held one of two views towards concepts like the Neighborhood Unit. Academics (Banarjee and Baer 1984) have viewed the Neighborhood Unit as a sociological concept, a physical instantiation of traditional sociological notions of community. Professional planners and designers – notably members of the Congress for the New Urbanism – have treated the neighborhood as a kind of Platonic ideal, an essential and age-old component of human experience. Whatever their merits however – each camp has many – neither perspective has done an adequate job of assessing the Neighborhood Unit's impact on twentieth century urbanization.

Part of the problem is that few writers have concerned themselves with how Perry's Neighborhood Unit concept has been used in professional literature. The discussion has been too abstract and theoretical as a result, relying too often on misconceptions, oversimplifications, and wishful thinking. The professional literature of course is guilty of the same misconceptions and oversimplifications. Yet this fact is critical to understanding the Neighborhood Unit's impact. Concepts are used and reused, not always appropriately, rarely in quite the same way that their authors intended. Though Perry's Neighborhood Unit concept was arguably the most significant idea in American urbanism in the twentieth century, its meaning extended far beyond and outside of the original concept. Each organization that made use of the concept adapted it (consciously or not) to suit its purposes, sometimes using only part of the concept and other times applying it to new circumstances. Over the middle decades of the twentieth century Perry's Neighborhood

Unit concept underwent a continual process of articulation and adaptation, of shifting and change.

My interest in this work has been driven by a curiosity about both the persistence of Perry's Neighborhood Unit concept and its apparently significant impact. In the following study I ask four research questions:

- How does professional knowledge develop? That is, how are ideas posited, elaborated, tested and adopted in professional contexts?

- What causes some concepts to become leading ideas?

- How does the rhetorical form of professional knowledge affect its adoption and use?

- What *difference* do leading ideas like the Neighborhood Unit concept make for the professional communities that adopt and sustain them?

I examine these questions through a close analysis of the extensive professional literature that makes use of the Neighborhood Unit concept. My focus has been on the diffusion of the concept in suburban real estate development. The Federal Housing Administration and the Urban Land Institute were particularly important sources in this regard; there were certainly many others. Analyzing the discourses advanced in the professional literature of a number of organizations – as well as how those discourses changed over time – helped me to understand not only how Perry's Neighborhood Unit concept became a leading idea but also what impact it had on urban development and the regulation of urban development.

Based on this analysis, I will argue that a *pragmatic* view of professional knowledge is warranted. A pragmatic view of knowledge holds that meaning is grounded in experience. It is thus localized in practice communities, embedded in methods, technologies and know-how, and invested in the successful conduct of tasks (Carlile 2002). Both academic and professional views of the Neighborhood Unit concept by contrast have tended to view it in more universal and essentialist terms. Each perspective struggles to explain the Neighborhood Unit's adoption and impact as a result.

A pragmatic view of knowledge helps us appreciate the Neighborhood Unit concept's role as a *lever of change* that reshapes a practice or way of thinking in a particular professional community. It is in this sense that the Neighborhood Unit concept had its greatest impact. This was the case, for example, early on in the twenties and thirties when the Neighborhood Unit concept helped move developers and housing officials towards thinking of development on an area or unit-wide rather than a lot by lot basis. Professional knowledge like the Neighborhood Unit concept develops and gets validated because it calls attention to meaningful change in exsisting modes of practice.

I will argue that the Neighborhood Unit concept became a leading idea because it held pragmatic significance for such a broad range of professional communities that it attained a critical mass (Rogers 2003), with each professional organization's use of the concept reinforcing its meaningfulness for others. The rhetorical form of the Neighborhood Unit concept was particularly important in this regard. While professional communities interpreted many parts of the Neighborhood Unit concept in similar ways, each interpreted the concept through their own

roles and pragmatic concerns. It thus had to be adaptable. The rhetorical power of the

Neighborhood Unit concept lay in its ability to maintain a strong identity while having enough

informational ambiguity to allow it to be adapted to a range of professional contexts. The

sociologist Susan Leigh Star has described this type of knowledge as a *boundary object* (Star and

Griesemer 1989, Carlile 2002). (The boundary here refers to the gap between different

communities of practice; boundary objects help bridge such gaps.)

Many planning scholars have characterized either the Neighborhood Unit concepts or urban

planning ideas more generally (Banerjee and Baer 1984, Blanco 1994, Hack and Canto 1990,

Garde 2008) as paradigms. This characterization is instructive in the sense that the Neighborhood

Unit concept made the greatest difference for the professional communities that adopted it less

through its substantive content per se than its ability to act as a guiding exemplar that crystallized

a holistic set of theories, problems, and tools informing practice. We should be careful not to use

paradigms inappropriately, however. Kuhn himself (1962) suggested that his description of

paradigms was restricted to the realm of scientific inquiry, with its emphasis on causal

explanation and contribution to a cumulative base of knowledge. Used pragmatically in a variety

of professional domains, the Neighborhood Unit concept was never a unitary paradigm even as it

was ubiquitous. Further, professional communities adapted and reframed the Neighborhood Unit

concept to suit their purposes as urban planning and development evolved. It wasn't just that the

the Neighborhood Unit concept paradigm was elaborated until its inconsistencies made it

untenable; it was always changing. For this reason I see the Neighborhood Unit concept more as

a *leading meme* (Dawkins 1976), a unit of cultural transmission that plays a critical role in

shaping practice, but one that continually evolves along with the evolution of the practices it

helps to shape. Viewing the Neighborhood Unit concept as a leading meme helps to explain the

sustained influence of the concept in a complicated and fluid professional environment.

In the next chapter I develop a concise review of the extensive literature on the Neighborhood

Unit concept , as a means of demonstrating its importance in twentieth century American

development and as a way of framing my approach to the topic. In chapter two I discuss the

research design for this dissertation. The following several chapters present a history organized

in four stages covering the invention, adoption, and diffusion of the Neighborhood Unit concept

as well as the emergence of rival ideas. Chapter three analyzes Perry's Neighborhood Unit

monograph, exploring the connected strands of thought that informed Perry's research and

deconstructing Perry's argument for the Neighborhood Unit. Chapter four concerns the adoption

of the Neighborhood Unit primarily in the real estate development industry, particularly in light

of developments in the real estate industry and in the regulation of development in the 1920s and

1930s. Chapter five examines the diffusion of the Neighborhood Unit concept primarily in the

literature of the Federal Housing Administration and the Urban Land Institute's Community

Builders Council. Chapter six assesses the waning influence of the Neighborhood Unit concept

in the sixties through the emergence of shopping centers, new towns, and Planned Unit

Development as rival paradigms. The final two chapters present analysis and conclusions.

Chapter seven is a critical assessment of the Neighborhood Unit's impact framed through a

contemporary lens influenced by New Urbanism. In chapter eight I analyze the Neighborhood

Unit concept as an example of professional knowledge, focusing on pragmatic dimensions of

communication. I then attempt to draw conclusions from this study to broader practice.

CHAPTER 1: LITERATURE REVIEW

The significance of the Neighborhood Unit concept is suggested by its extensive use. A rudimentary Google Scholar search of "neighborhood unit"[1] returned 1030 citations. Not all of these pertained to the Neighborhood Unit concept in the sense that we mean here – several hundered referred to the neighborhood unit as a unit of geo-statistical analysis (e.g. a census tract or block group), and many others concerned a local unit of political government. Even after eliminating citations that either referred to other meanings of neighborhood unit or were too incomplete to be certain of their meaning, however, Google Scholar still returns a list of 548 records, a large number for scholarly literature. Moreover, because Google Scholar focuses on scholarly literature and not professional or lay publications, this basic search for citations should not be considered complete, or even roughly comprehensive. It is also likely that Google Scholar does a better job of finding sources that were published after the emergence of the internet age, something that is reflected in Figure 1.1.

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[1] Conducted 1/2/2009.

Figure 1.1: citations of the Neighborhood Unit concept, showing number of citations per year.
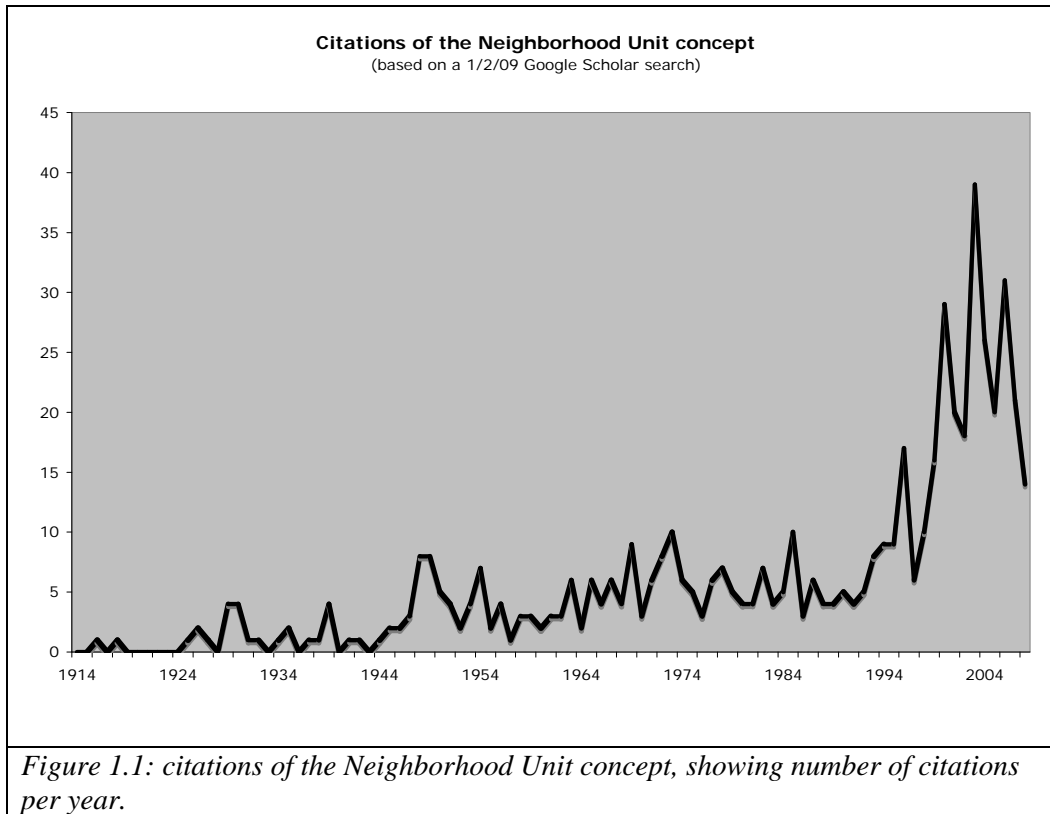
The 548 citations in this Google Scholar search make reference to a concept of the Neighborhood Unit that has been built up and evolved over the last hundred years, a concept that began with traditions in the Garden City movement (Howard 1902) and early American subdivision practices (Yeomans 1916), gained voice through the Radburn model (Stein 1951) and the work of Perry at the Russell Sage Foundation (Perry 1929b), was reinterpreted in the New Town movement after World War II in Britain and in the sixties in America (Urban Land Institute 1968) and again through the Congress for the New Urbanism (Steuteville 2006). Individual citations of the Neighborhood Unit concept both make use of different aspects of the concept and draw on different sources from within this larger set of traditions. As we shall see, the meaning of the Neighborhood Unit concept evolved in significant ways through this period.

The Neighborhood Unit concept, then, precludes singular definition. Loosely we can say that it

refers to a primarily residential area of a certain size that includes a complement of additional

uses that support residential life. Beyond that, though, it has been established, reformed,

reinterpreted and misinterpreted, contested and criticized, with each new citation changing how

the concept is used. Identifying and interpreting this change will be an important part of this

research.

Uses of the Neighborhood Unit concept run the gamut of concerns that have been amalgamated

into the field of urban planning, and they have made significant contributions in associated fields

that share urban concerns. The Neighborhood Unit played a significant role in both

suburbanization (Adams 1974, Mayo 1979, Morris 1986, Southworth and Owens 1993) and

urban renewal (Ascher 1934, Brooks 1937, Montgomery 1965, Mandelker 1967, Fairbanks 1987,

Vale 2000, Schwartz 2002, Gordon 2003, Birch 2007). Beyond planning (Perry 1929a, 1929b,

Stein 1951, Adams 1974, Banerjee and Baer 1984, Ben-Joseph and Szold 2005) it has been used

in architecture (Yoemans 1916, Blumenfeld 1949, Roady 1972, Knesl 1984, Glazer and Lilla

1987, Kallus 2005), urban design (Lynch 1981, Lang 1994, Barnett 1996, Lee and Stabin-

Nesmith 2001, Larice and MacDonald 2007), real estate development and finance (Whitten

1927, Weiss 1990, Hoagland 2003, Lins, Novaes and Legey 2005), and law (Ascher 1934,

Hanke 1965, Mandelker 1967, Burke and Dienes 1971, Freilich 1971, Kleven 1973, Williams

and Taylor 1974, Poindexter 1996, Bohl 2003, Lewyn 2004, Nelson 2004). The boundaries of

these fields somtimes blur, of course; the Neighborhood Unit concept has often been used to

meld concerns from different fields. In its various guises the Neighborhood Unit concept made a

significant impact in specific areas as varied as education (Caudill 1947, Brussat and Riemer

1951, Seoane 1954, Dyckman 1959, Howell 1976, Garner and Raudenbush 1991), parks and recreation (Girling and Helphand 1996), transportation (Ford 1932, Beckley, White and Ehler 1969, Canty 1969, Crane 1996, Boarnet and Crane 2001, Gordon 2004), the environment (Arendt 1999, Costa and Noble 1999, Girling and Kellet 2005, Farr 2008), public health (Rohe 1985, Huie 2001, Corburn 2007), and policing (Condlin 1969, Barlow and Barlow 1999, Grubesic and Mack 2008).

The Neighborhood Unit concept was (and is) not without criticism. Much of the contentiousness about the concept concerns either its sociological foundations or its potential to address those sociological foundations. Those who have advanced the Neighborhood Unit concept – Clarence Perry in particular – were influenced by theories of community coming out of the famous Chicago School of sociology in the first decades of the twentieth century[2]. Cooley (1909) saw the local neighborhood as a *primary group* – the first significant social grouping larger than the family and hence the primary unit of social organization through which individuals socialize with the broader world. Chicago School sociologists built on Cooley's conception of the neighborhood as primary social unit when investigating problems of the industrial city. McKenzie (1923) emphasized the neighborhood assocation as the baromoter of community health, a theme that has been reintroduced most recently with Putnam (2002). A joint volume (Park, Burgess and McKenzie 1925) by some of the main figures in the Chicago School included a chapter by Park examining levels of community organization and levels or absence of juvenile delinquincy.

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[2] Urban planning's professional organization, the American City Planning Institute, was founded in this time period and located in the University of Chicago's Hyde Park neighborhood, and the influence of the Chicago School of sociology and the emerging field of urban planning would be mutual.

The premise of the Neighborhood Unit concept is that the physical environment – including land, buildings, streets, and infrastructure – can affect community life: homes surrounded by factories, railroads and busy streets would likely be unhealthy in a social sense, but well-planned neighborhoods that included community amenities and were protected from negative elements could go a long way in engendering healthy community life. Many have critiqued the early sociologists' assumptions about the local neighborhood as a significant social unit – Webber (1963) in particular questioned the validity of notions of community based on local ties. More significantly, others have questioned the connection between social theories and physical designs like the Neighborhood Unit concept (Dewey 1950, Rosow 1961). Fairfile (1992) is most critical in this regard. Lawhon (2009) summarizes the debate; Banarjee and Baer (1984) likely had the greatest impact on the planning profession.

The planning literature has been concerned not just with the possibility of designing Neighborhood Units that support community life but also with its desirability. Lewis Mumford was alternately supportive and ambivalent about the Neighborhood Unit, particularly as it fit with the larger project of the Regional Plan of New York and its Environs (Mumford 1954, 1961). Jacobs (1961) argued that it was not formal boundaries that distinguished neighborhoods but the level and character of their activity. Similarly, Isaacs (1948, 1949a) criticized the Neighborhood Unit's cellular nature: he argued that even if there was sociological validity to the local community *and* if we could plan developments to engender salubrious communities, the Neighborhood Unit concept as formulated by Perry still did a disservice by fixing organic social life in place and bounding it in cellular units that created an artificial separation between the neighborhood and the larger city or region.   Others dismissed Isaacs' criticism (Stillman 1948,

Wehrly 1948, Goodman 1949) or missed its import entirely (Herbert 1963a, 1963b), but he had a

point. Though Perry viewed the Neighborhood Unit as a democratizing institution (Perry 1929a,

1929b), he also looked approvingly at the emerging practices of real estate developers like J.C.

Nichols, whose real estate practices demanded homogenous neighborhoods backed by strict land

use controls (Perry 1929b, 1933, 1939). The egalitarian promise of the Neighborhood Unit did

not always match its reality, then, where it was usually homogenous and often explicitly

exclusionary. For Isaacs (1949b) and Bauer (1945) the Neighborhood Unit was problematic for

enacting racial and economic segregation, something that would be particularly damaging in the

context of public housing and urban renewal.

Part of the problem in examining the historiography of the Neighborhood Unit concept is that

many authors respond to the hopeful claims of the Neighborhood Unit concept or the mere

critiques of others (or worse, to a superficial understanding of the concept) without delving into

how the concept was used. Yet the Neighborhood Unit concept's impact was extensive and

tangible. By the sixties no less than eighteen professional and governmental organizations made

use of the Neighborhood Unit concept (Solow et.al. 1969; to Solow et.al.'s list we might also add

both CIAM and the Congress for the New Urbanism). Solow et.al. also found that fully eighty

percent of professional planners made use of *Planning the Neighborhood*, the American Public

Health Association manual that placed the Neighborhood Unit as its central idea. The

Neighborhood Unit concept found its way into the typical urban plan of the post-war period

(Swanson Associates 1950[3]). So the Neighborhood Unit concept was adopted by the vast

majority of organizations involved in urban development, and we can say that members of those

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[3] This is, of course, but one sample, selected because it was for the town where I currently reside. Still, we can expect that a larger study would find that it is typical of post-WWII comprehensive plans generally.

organizations were well familiar with the concept and made use of it in their work. Each

organization had its peculiar mission; the Neighborhood Unit concept fulfilled some aspect of

each of these missions. In each case it may or may not be true that the Neighborhood Unit was

used in a manner that its authors and critics intended. There is relatively little in the scholarly

literature that addresses the Neighborhood Unit concept's diffusion into professional

communities of practice.

Advocacy of the Neighborhood Unit Concept

- American Institute of Architects
- American Institute of Planners
- American Society of Civil Engineers
- American Society of Planning Officials
- Central Mortgage and Housing Corporation (Canada)
- Department of Housing and Urban Development
- Federal Housing Administration
- Housing and Home Finance Agency
- International City Managers Association
- International Congress for Housing and Town Planning
- National Association of House Builders
- National Association of Housing Officials
- National Association of Real Estate Boards
- National Federation of Settlements and Neighborhood Cities
- National Housing Agency – Federal Public Housing Authority
- Town and Country Planning Association
- United Nations
- Urban Land Institute
- *Congress Internationale de Architecture Moderne*
- *Congress for the New Urbanism*

Figure 1.2: Professional and Government Organizations giving either clear or general support for the Neighborhood Unit concept (Solow et.al. 1969; italics mine)

Neighborhood, of course, is a natural concept. As long as humans have settled together in groups we have formed neighborhoods. Neighborhoods were mentioned in the Bible (Jacobsen 2003), and have long existed in a variety of cultures (Krier 1992). The Neighborhood Unit concept is a specific formulation of this more abstract idea. In our culture and in our time (that is, in the United States from the 1920s on) we have used the Neighborhood Unit concept to frame our talk of neighborhood.

Particularly given its ubituity in professional practice, Banarjee and Baer (1984) argued that the development and testing of the Neighborhood Unit concept was woefully primitive. *Beyond the Neighborhood Unit* was an attempt to rectify this deficit. In it Banarjee and Baer conducted extensive survey research in order to develop a model underpinned by legitimate scientific knowledge. Based on their data they concluded that residents tended not to perceive of or use their surroundings as a coherent neighborhood. They argued instead that the Neighborhood Unit concept ought to be replaced by "Residential Environment" – a term that was more accurate if less compelling. *Beyond the Neighborhood Unit* helped to temporarily shift the planning profession away from the Neighborhood Unit concept. Ironically, though, the wide popularity of New Urbanism in the 1990s soon led to its rebirth.

Although Banarjee and Baer rightly questioned the Neighborhood Unit concept's sociological validity, they were unduly dismissive of its use. They disparaged Perry and other advocates of the Neighborhood Unit concept as self-proclaimed experts who too often placed the interests of

their professions above the social concerns of users. This goes too far. Sociological concerns are important, but so too are the demands placed on the planners, designers, developers, councilmen, city managers, bankers, housing officials and land-use lawyers who work together to create urban form. Where statements advanced by these professions are basely self-serving they may be rightly criticized, but their practices ought not to be dismissed out of hand.

Professional organizations endorse concepts not merely for their abstract cogency but because they contribute useful meaning in a particular context. Recognizing this, it seems appropriate to make a distinction between the Neighborhood Unit concept as a sociological proposition and as a planning or development model. We tend to create the latter in the image of the former, but we need not treat them as the same thing. Dwelling on the former obscures important issues inherent in the adoption of concepts like the Neighborhood Unit. These issues are not restricted to the Neighborhood Unit concept exclusively but pertain to a general class of ideas. We might as easily ask other questions: how did the emergence of sustainability change the culture of the architecture profession? What do real estate developers get out of joining the Congress for the New Urbanism? How might the early work of the Federal Housing Administration have been different if it had been guided by the Radburn model or the Garden City rather than the Neighborhood Unit concept?

Such questions require analysis of professional texts, something that has rarely been done with the Neighborhood Unit concept. Figure 1.3 presents a representative but not exhaustive list of such texts. For our purposes professional texts are any documents written for use by a professional audience in their everyday work. They include memos, pamphlets, newsletters,

journals, manuals, textbooks, reports, and plans. The list in Fig. 1.3 is varied. In some places I

present texts produced by a single organization for use by its membership. In others I assemble

texts from a variety of sources that have been important to a single profession. Each source in

the list makes use of the Neighborhood Unit concept in particular ways within a larger

professional work.

Professional Literature
Early sources • Regional Survey of New York and Its Environs, vol. 7 (Perry 1929b) • Neighborhoods of Small Homes: Economic Density of Low-Cost Housing in America and England (Whitten and Adams 1931) • The Design of Residential Areas: Basic Considerations, Principles, and Methods (Adams, T. 1934) Federal Housing Administration • Low-Cost Housing • Subdivision Development: Standards for the Insurance of Mortgages on Properties Located in Undeveloped Subdivisions • Planning Profitable Neighborhoods Urban Land Institute • The Community Builders Handbook • Technical Bulletins • The Home Builders Manual for Land Development Congress for the New Urbanism • Charter of the New Urbanism • New Urbanism: Comprehensive Report and Best Practices Guide Planning Literature • Planning the Neighborhood • The Practice of Local Government Planning • Urban Land Use Planning • Planning and Urban Design Standards

Figure 1.3: Professional texts using the Neighborhood Unit concept

The Google Scholar search discussed at the beginning of the chapter culled few of the

professional texts that have made use of the Neighborhood Unit concept. Nevertheless, graphing

the extensive citations identified by Google Scholar produces clues concerning the

Neighborhood Unit concept's impact. The trend suggested in Fig. 1.1 is likely distorted by the

relative ease of identifying sources that were published in the internet age (we cannot determine

whether the recent spike in citations is due to the emergence of New Urbanism or because fewer

of the older sources are readily available on the web). Restricted to an earlier time period, Figure

1.4 gets past this problem. Though the list is not comprehensive, we can expect Google Scholar

to be equally as good at gathering sources from 1930 as it is from 1960. The general trend

projected in Fig. 1.4 is therefore helpful[4].

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[4] This remains a rudimentary search.
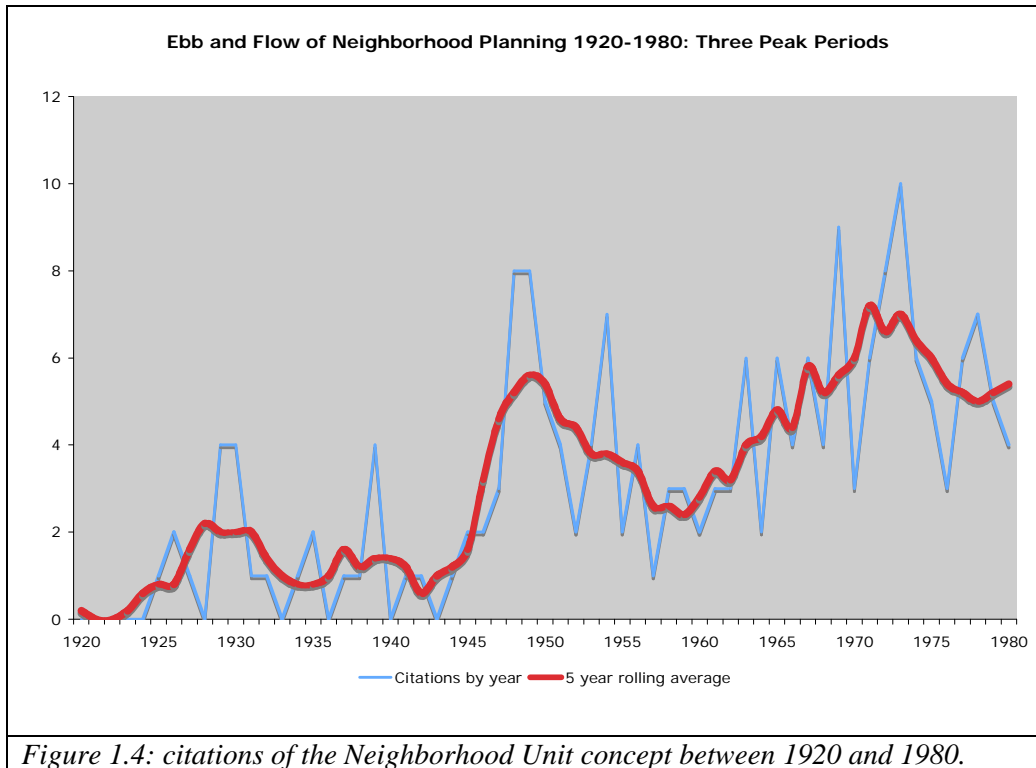
Figure 1.4: citations of the Neighborhood Unit concept between 1920 and 1980.

Fig. 1.4 suggests a general increase in use of the Neighborhood Unit concept from 1920 to 1980. More importantly, within this general trend are three cycles: citations of the Neighborhood Unit concept peak in 1929 before leveling off, peak again after World War II then decline through the fifties, and then build to a final peak shortly after 1970. In other words, scholarly citation of the Neighborhood Unit concept was extensive through the twentieth century, but it was not steady. Use of the Neighborhood Unit concept rose and fell. The peaks in Fig. 1.4 correspond to three important periods – the impact of Perry's original publication of the Neighborhood Unit concept, the heightened interest in the Neighborhood Unit to address the housing shortage immediately after World War II, and the emergence of the new towns movement and the Planned Unit Development in the sixties. The cyclical flow of Fig. 1.4 suggests that the Neighborhood Unit concept was particularly important during these three periods but waned in the intervening years.

An argument could be made that the Neighborhood Unit concept was the single most important idea in American urban planning and development in the twentieth century. Despite its extensive use and criticism, however, relatively little analysis has been undertaken concerning its impact. Academic research has traditionally focused on its sociological dimensions or its empirical foundation. Nevertheless, recent scholarship both within urban planning and in broader academic circles have generated interest in the use of standards and codes in professional settings. A critical study of the diffusion of the Neighborhood Unit concept seems timely.

CHAPTER 2 RESEARCH DESIGN

2.1 Research questions

The intent of this study is to explore how professional knowledge informs and in turn is shaped

by practice. The long shadow cast by Perry's Neighborhood Unit concept on the planning,

design, construction, regulation, and financing of suburban development in the middle part of the

twentieth century provides an opportunity for this exploration. I began this study by asking the

following questions:

- How does professional knowledge develop? That is, how are ideas posited, elaborated,

  tested and adopted in professional contexts?

- What causes some concepts to become leading ideas?

- How does the rhetorical form of professional knowledge affect its adoption and use?

- What *difference* do leading ideas like the Neighborhood Unit concept make for the

  professional communities that adopt and sustain them?

This thesis does not address the appropriateness or validity of Perry's Neighborhood Unit

concept. Others, notably Banarjee and Baer (1984), have examined the Neighborhood Unit

concept from an empirical social science perspective. This study in contrast is primarily

concerned with what happens – with how knowledge affects human activity.

2.2 Research approach

This study is thus historical in nature. Historical research concerns the study of events in the past with a particular focus on change (Brundage 2002, Furray and Salevouris 2000, Howell and Prevenier 2001, Schwandt 2001). It concerns understanding human experience (Howell and Prevenier 2001). It is particularly useful in examining questions in complex environments (Campbell 2002) in which there are many variables and it is not necessarily desirable to isolate variables from their context. It has an advantage over contemporary case studies in that it requires critical distance.

Though it could certainly be argued that Perry's Neighborhood Unit concept was a defining idea of mid-twentieth century urban development, I have not pursued this study as a work of connoisseurship. Rather, I view this as a *genealogical history* (Foucault 1977), one that traces how knowledge comes into being, how varied strands of knowledge inform new ideas, and how concepts grow and change, fuse together or splinter. Genealogical history in Foucault's sense is not singlular or monolithic but rather focused on the fine details of meaning and change.

The genealogical approach is justified, I argue, because of the kinds of questions I ask. If I was concerned with the salience of the Neighborhood Unit as a social concept, a sociological or anthropological approach in which I examine the experience of residents in local environments would be most appropriate. If I was concerned with whether projects developed by ULI members were in keeping with Perry's Neighborhood Unit concept, or whether either those projects or Perry's concept fulfilled specific social claims made by its adherents, evaluation research that measured specific variables in numerous cases, oriented towards stastical inferences, would be most appropriate. But I am less concerned here with the validity of the

neighborhood unit as a social concept or whether particular development projects created a sense of community. Rather, my concern is how adoption of Perry's Neighborhood Unit concept affected the practices of suburban real estate developers during the Great Depression and after WWII. It concerns adoption of an idea by a particular group of actors at a particular time, given the demands of their work, their interactions with other groups of people, and the historic context within which they are working. The connections may not necessarily be direct, obvious, or intentional. Foucault's approach to genealogical history helps us ascertain the impact of a concept on a larger set of phenomena, whether the impact is direct or not.

While genealogical history is certainly interested in cause, explanations need not have a binary, cause/effect relationship. A co-evolutionary or ecological argument – i.e. one allows for knowledge, professional communities, practices, artifacts, and interactions with others to affect each other in a dynamic (but explicable) fashion – will likely be more appropriate. I attempt in this dissertation to provide an explanation of what happened, but it is not simply an evaluation of the Neighborhood Unit's effect in a linear *concept→implementation* (i.e. did adoption of Perry's Neighborhood Unit concept lead to the development of actual neighborhood units?) fashion. I am as concerned with larger effects – what changed with the emergence of the Neighborhood Unit phenomenon? How did the phenomenon affect the changes?

2.3 Research methodology

Historical research begins with a topic and some general questions, a rationale for why the topic is important for a particular audience, and a rough plan of action that demonstrates that the research is feasible (Howell and Prevenier). It uses a broad range of evidence with the goal of being comprehensive. Diverse sources of evidence are desirable as they lend believability to subsequent arguments. The historical research process is iterative, with finding answers leading to new questions requiring further investigation. Over the course of research topic and rough questions progress toward focused questions and a thesis, ending when the researcher has a refined thesis that is coherent, complete, relevant to an audience and supported by a carefully constructed argument grounded in solid evidence.
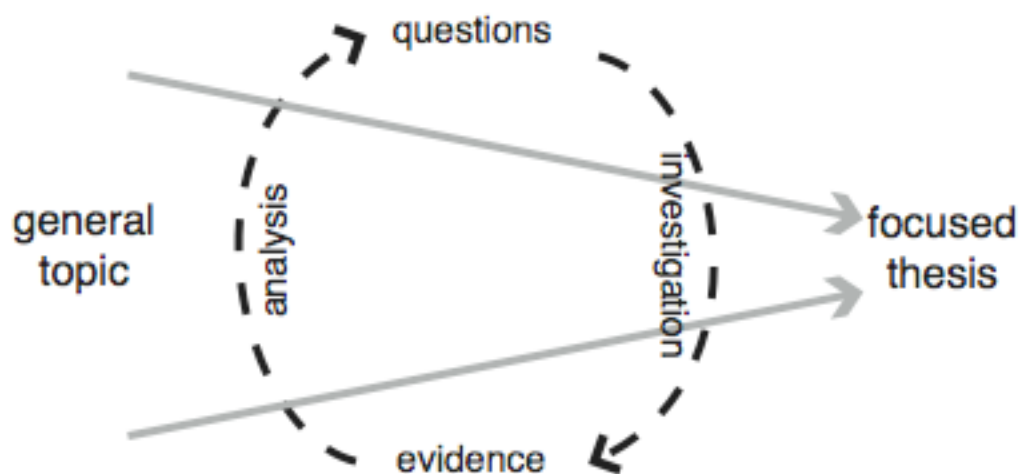
Figure 2.1: The historical research process. Research begins with a general topic and undergoes an iterative process of questioning and information gathering, gradually focusing in on a refined thesis backed by evidence in a carefully constructed argument.

My primary research method is discourse analysis. Discourse analysis is a means of analyzing communication produced by organizations and individuals (Throgmorton 1991, Neuman 1998) – Foucault is probably the most well known discourse methodologist (Foucault 1972). This form of research encompasses a variety of techniques – Gasper and Apthrorpe (1996) discuss five different senses of the term. Many in planning have used a critical or emancipatory mode of

discourse analysis (Boyer 1983, Innes 1995) following Foucault and others. For this study, though, I focus on discourse in the more narrow linguistic sense (Johnstone 2002, Gee 2005). In linguistics, discourse is concerned with meaning. It presumes that the meaning of words and concepts are established through their use in larger (spoken or written) texts. An analogy may be helpful. Many conservatives have recently criticized President Obama's suggestion that Supreme Court judges employ *empathy* in their deliberations, arguing instead that judges should practice restraint. Some in the conservative camp argue that the standard for constitutional deliberation should be *original intent* – that is, judges should make constitutional rulings based on what the authors of the Constitution had intended the text to mean. Linguistic discourse analysis would view even the standard of *original intent* as too liberal. This is because it appeals to sources – an interpretation of the authors' intentions – outside the text itself. A linguistic standard of judicial interpretation would restrict a judge to interpret the text as written in the Constitution as the sole basis assessing the Constitutionality of law.

Discourse analysis is necessarily hermeneutic. It requires looking at a concept's use in a particular text and attempting to ascertain particular meaning. The Urban Land Institute, for instance, discusses neighborhoods in the following manner:

> "Let us so plan and build, in order to create stable values and neighborhoods of
> such permanent character as to endure for generations." (J.C. Nichols, quoted in
> ULI 1947, p.38)

Here the Urban Land Institute is concerned with "stable values" and "permanent character"; the meaning of Perry's Neighborhood Unit concept is connected to how it establishes neighborhoods

with these traits. The American Public Health Association, on the other hand, discusses neighborhoods differently:

> "It [the neighborhood] is the physical and social environment which constitutes the basis for healthful housing, since man is primarily a social animal." (APHA 1949 p.*vi*)

While the real estate development literature is concerned with stability and economic value, the planning literature developed by APHA is concerned with issues of public health driven by "physical" and "social" concerns. In a linguistic view of discourse the meaning of Perry's Neighborhood Unit concept differs in each case, and Perry's intentions are not relevent to understanding the concept's meaning – at least not within each particular context.
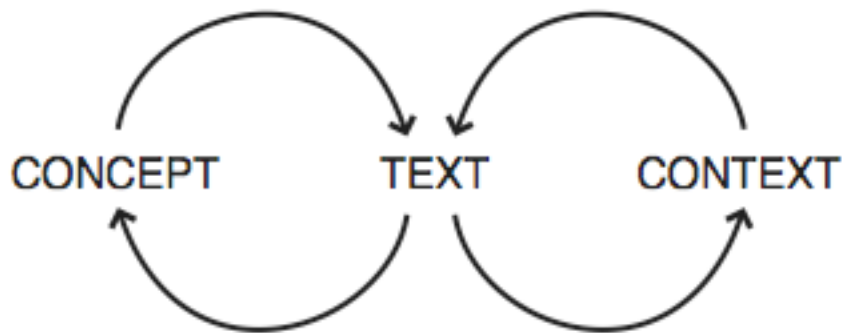
Figure 2.2: A double hermeneutic circle. Discourse analysis involves interpreting the meaning of concepts through their use in a text, along with interpreting the text's role and use in its historical context.

I use discourse analysis to examine the use of Perry's Neighborhood Unit concept in particular texts. I then document changes in the concept, both across texts and over time. Literature such as the FHA's land planning circulars and the ULI's *Community Builders Handbook* are

particularly useful in this latter regard, because several editions were published of each (I was

therefore able to identify temporal changes within a particular text). I attempt to answer my

research questions by marshalling the accumulated information generated through a discourse

analysis of professional literature.
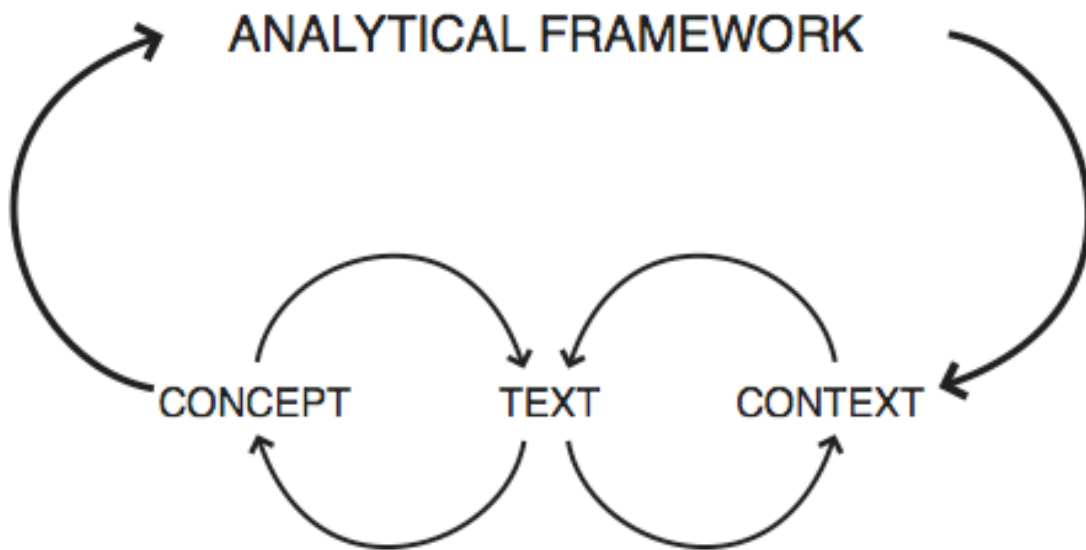
Figure 2.3: Relationship between discourse analysis and development of an analytical framework in the process of historical research.

Figure 2.3 connects discourse analysis to the depiction of historical research in fig. 2.1. Use of

the Neighborhood Unit concept in professional literature is examined via the double hermeneutic

of discourse analysis. This informed the development of an analytical framework that framed

my understanding of the research material. Through initerative process of discourse analysis and

development of an analytical framework, I developed a thesis argument that answered my

research questions.   Fig. 2.4 compares my research questions to themes developed in the

analytical framework. I will elaborate the themes in my analytical framework over the next

several chapters; I then present a summary discussion at the end of Chapter 8.

Research questions	Analytical framework
• How does professional knowledge develop? That is, how are ideas posited, elaborated, tested and adopted in professional contexts?	o Pragmatic knowledge o Lever of change
• What causes some concepts to become leading ideas?	o Critical mass o Boundary object
• How does the rhetorical form of professional knowledge affect its adoption and use?	
• What *difference* do leading ideas like the Neighborhood Unit concept make for the professional communities that adopt and sustain them?	o Leading meme
Figure 2.4: Comparison of research questions and analytical framework	

2.4 Reporting

A historical thesis – the author's interpretation of a subject – is a rational argument subject to the

burden of proof. It involves making claims that are relevant to a thesis and can be justified based

on collected evidence. Histories are interpretive, not merely descriptive. Others might submit

different arguments, but the thesis must be supported by reasoning that anyone must accept

based on historical evidence. Conducting historical research demands an ethical commitment to

the pursuit of truth, a commitment that cannot be compromised to make a "stronger" argument.

The validity of such research should depend on four trustworthiness criteria (Lincoln and Guba

1985). *Credibility* concerns the reasoning of the author's argument: is the interpretive argument

well-founded based on the collected evidence? *Transferability* concerns relevance of the study

to other, similar areas. This is not a matter of statistical generalizability – histories focus on particular truths – but a historical thesis should never the less produce a valid, useful, theoretical generalization. *Dependability* and *confirmability* address the researcher's responsibility that data be transparent and available and the research process and the path of argumentation are documented and traceable.

Knowledge generated through historical research is not generalizable in the same way as some other kinds of social science research. This is, in some respects, a weakness. Rather than generalization based on stastical inference the value of history depends on its theoretical or analytical generalizability: understanding the experience presented in a history can help an audience understand other experiences (Creswell 1998, Campbell 2002, Yin 2003)

2.5 Research program

Topic

The topic for this study concerns professional knowledge in the ULI's Community Builder's Handbook in the period from 1947-1977. I approach this topic with an interest in examining performative aspects of codified norms – that is, what they do in practice. Through data collection, analysis, and interpretation, I will refine and rework the initial research topic and questions into a thesis that depends on logical argument and well-founded evidence.

Data collection

I have identified six primary sources of data. First are the various editions of the Community

Builder's Handbook published by the Urban Land Institute between 1947 and 1968. A

preliminary analysis of this material was conducted in the spring of 2006, supported by a

research assistantship through the University of Illinois at Urbana-Champaign Department of

Urban and Regional Planning. Second are additional publications from the Urban Land Institute,

chiefly Technical Bulletins, reports on a variety of topics published contemporaneously with the

Community Builders Handbook. The Technical Bulletins cover a range of substantive

information and provide a record of the intellectual development pursued by the ULI over time.

They provide information about the professional and institutional relationships between ULI and

other organizations and between the different councils within ULI. Additionally, many of the

bulletins include comprehensive surveys that shed light on the state of development (and hence

provide information on how ideas are impacting the field). Third are joint publications from ULI

and the National Association of Home Builders and/or the Federal Housing Administration.

Fourth are the proceedings and reports of the President's Conference on Home Building and

Home Ownership, convened in 1931. Fifth are circulars, bulletins, and annual reports published

by the Federal Housing Administration between 1934 and 1941. Finally, the American Public

Health Association's *Planning the Neighborhood* provided insight into the Neighborhood Unit's

use amongst local government planners in the decades after World War II. Secondary sources

including histories, criticism, and research articles provide additional information.

Thesis development and reporting

The research thesis stems from the topic and initial research questions. It requires development

of a historical interpretation supported by logical argument based on collected evidence. Latter

stage analysis involves formulation and testing of an argument in the face of evidence. Research

will be complete when a focused, valuable interpreted thesis is developed that is fully supported

by evidence. Prior to this research will involve concurrent data analysis, question refinement and

reposing, and further data collection. Reporting involves a historical analysis presented in the

context of the interpretive/theoretical lens.

CHAPTER 3 INVENTION OF THE NEIGHBORHOOD UNIT

In the following chapter I discuss Perry's development of the Neighborhood Unit concept.

Perry's work was not revolutionary in the sense of it being wholly original. Rather he

synthesized knowledge from a variety of fields, including architecture, planning, sociology, and

real estate development. The guiding principle of his idea – that neighborhoods ought to be

centered on an elementary school and sized to provide the number of families required to support

the school – was based on his earlier work in the Community Center movement, which sought to

build community centers in each residential district. The success of Perry's work was due to its

synthesis from across disciplines, the depth of his researcn and the relative lack of similar work

elsewhere, and his moral fervor.

Perry developed the Neighborhood Unit concept for the first Regional Plan of New York and Its

Environs. The context is important, and I examine it in some depth. In the first part of this

chapter I discuss Perry's monograph and the Regional Plan. Next I examine some of the strains

of thought that contributed to Perry's concept in greater depth. I then deconstruct parts of
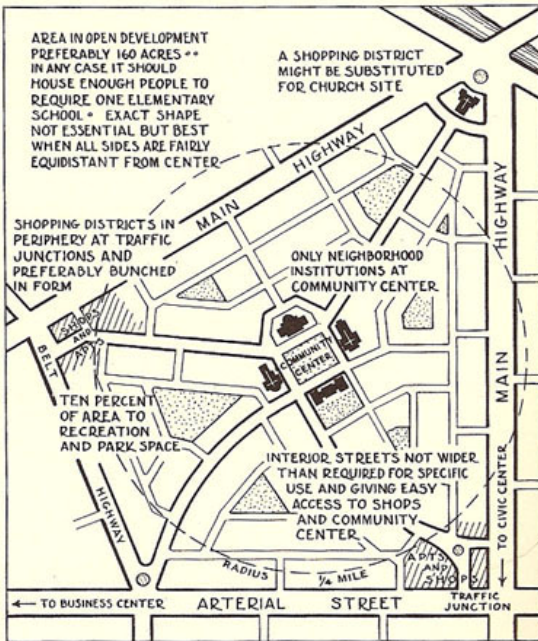
Perry's research argument in detail.

FIG. 33
NEIGHBORHOOD-UNIT PRINCIPLES

Figure 3.1. The most well-known of the Neighborhood Unit diagrams that Perry developed for the RPA monograph. (Perry 1929b)

Perry's Neighborhood Unit concept was the product of six years of research. His RPA monograph totaled more than 140 pages. Though the Neighborhood Unit diagram shown in fig. 3.1 is currently the most well-known product of his work, the RPA monograph involved greater depth, at once lucid in its main thrust and complicated in its details. Perry developed several contextual Neighborhood Unit diagrams and distilled six Neighborhood Unit principles that were without question more influential in the mid-twentieth century than the diagrams. A thorough examination of Perry's work will help explain its subsequent impact.

3.1 The Neighborhood Unit monograph

Clarence Perry published his ideas concerning the Neighborhood Unit in volume VII of *Regional Survey of New York and its Environs* in 1929 (Perry 1929b), produced in preparation for New York's first regional plan[5]. The Regional Plan was an ambitious civic project for the area within two hours train ride from central Manhattan. It was instigated in 1921 by the Russell Sage Foundation, and Thomas Adams served as its director. Perry's monograph was published as part of a volume on neighborhood planning, which included the reports *Sunlight and Daylight for Urban Areas* by Wayne D. Heydecker with Ernest P. Goodrich and *Problems of Planning Unbuilt Areas* by Adams, Edward M. Bassett and Whitten. There were a good deal of connections between the latter and Perry's work, and Adams and Whitten would become instrumental in applying Perry's ideas in a suburban context.
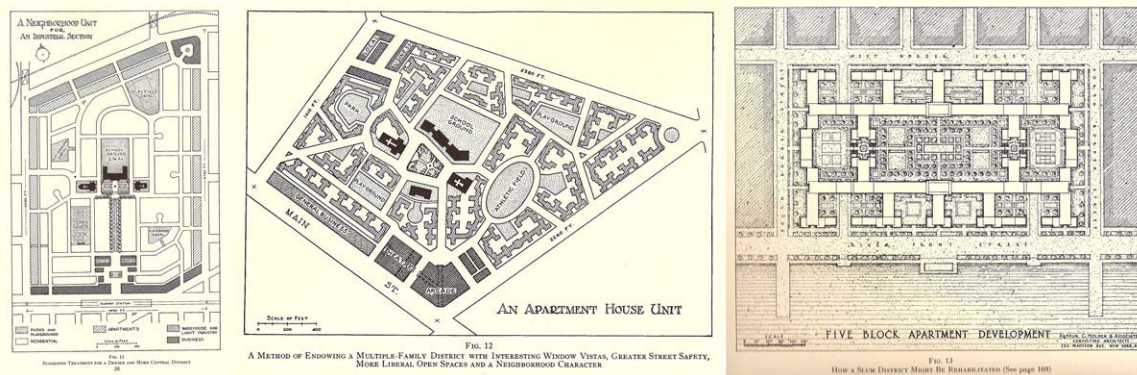
Figures 3.2, 3.3, 3.4: Perry developed Neighborhood Unit diagrams for several contexts in the RPA monograph – for an industrial neighborhood (fig 3.2), an unit of apartments (3.3), and for a dense site in the Lower East Side of Manhattan (3.4) (Perry 1929b).

The monograph was the product of six years of dedicated research on the part of Perry, with the assistance of the Sage Foundation, the staff of what would become the Regional Plan Association of New York and its Environs, and expert consultants in fields including education, recreation, social work and traffic engineering. It consisted of twelve chapters. The first three

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[5] I will use the term "RPA monograph" (for the Regional Plan Association of New York and Its Environs) as a shorthand for this work.

served to introduce the project, the Neighborhood Unit concept, and its six principles. The next five explained the argument and principles of the Neighborhood Unit in detail. Following was a chapter on Forrest Hills Gardens as a case of the Neighborhood Unit applied in practice. The final three chapters discussed how the Neighborhood Unit could be applied in new development, to rebuild slums, and to improve existing communities. Perry's monograph also included appendicies with information on educational facilities (Perry's area of expertise) and legal documents for the deed restrictons and homeowner's association for Forrest Hills Gardens.

The monograph was a carefully laid out argument introducing the Neighborhood Unit concept and showing how it could be of use to the range of constituencies that the Regional Plan aimed to serve. It is important to note that Perry intended the Neighborhood Unit to be a universal concept, applicable to all urban areas, old and new, dense and sprawling, wealthy and poor, with a particular focus on the New York region.

While Perry was driven by communitarian ideals (ideals that were informed by contemporary social theorists), he relegated moralizing to the final chapters of the monograph. Instead, the Neighborhood Unit concept was presented as an essentially practical model. Any given neighborhood, the argument went, contains a set of elements – homes, schools, etc. – each of which have their own logic (that is, they present certain demands and work in particular ways). Each element of the neighborhood must work in concert with others for the neighborhood as a whole to be a success. Developed individually on an ad hoc basis individual elements might work well for themselves but conflict with others – a shopping area might generate lots of automobile traffic that would be dangerous for young children walking to school for instance.

Therefore it was important to plan neighborhoods in a comprehensive fashion, taking into

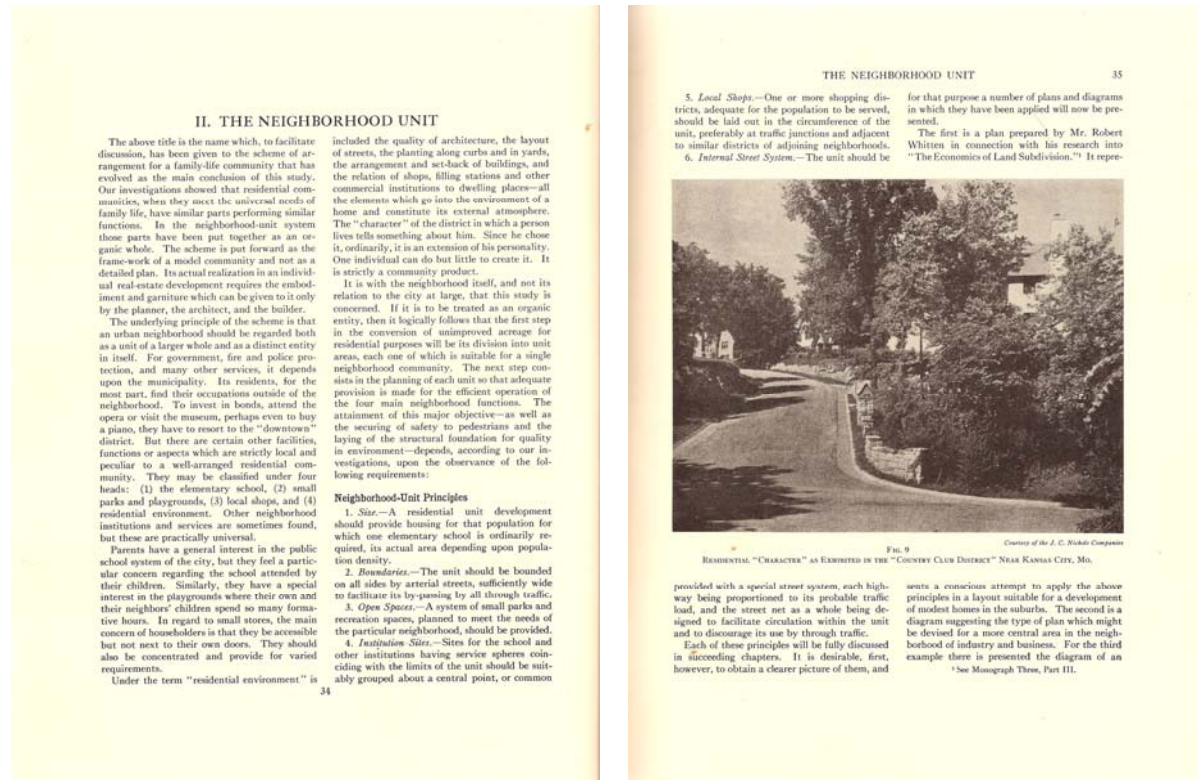consideration how each element would fit into the whole unit.

Figure 3.5. The six principles of Perry's Neighborhood Unit concept[6], with Nichol's Country Club District as an illustration, in the RPA monograph (Perry 1929)

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[6] In case the image is difficult to read, Perry's six Neighborhood Unit principles were:
1. Site: A residential unit development should provide housing for that population for which one elementary school is ordinarily required, its actual area depending upon population density.
2. Boundaries: The unit should be bounded on all sides by arterial streets, sufficiently wide to facilitate its by-passing by all through traffic.
3. Open Spaces: A system of small parks and recreation spaces, planned to meet the needs of the particular neighborhood, should be provided.
4. Institution Sites: Sites for the school and other insitutions having service spheres coinciding with the limits of the unit should be suitably grouped about a central point, or common.
5. Local Shops: One or more shopping districts, adequate for the population to be served, should be laid out in the circumference of the unit, preferably at traffic junctions and adjacent to similar districts of adjoining neighborhoods.
6. Internal Street System: The unit should be for that purpose provided with a special street system, each highway being proportioned to its probable traffic load, and the street net as a whole eing designed to facilitate circulation within the unit and to discourage its use by through traffic.

What gets included in the neighborhood is important. For now I just want to introduce two points. First, in Perry's mind a neighborhoood needed to consist of four elements – housing, schools, parks and playgrounds, and shopping, the last three being service functions for the first. Second, the Neighborhood Unit was geared specifically for the family – that is, a household unit with children. So the Neighborhood Unit concept is primarily concerned with a residential environment, including all those elements that support the residential environment. Work and industry spaces are left out with the assumption that workers will travel elsewhere in the city to their jobs. And it was assumed that other kinds of households would either be accomodated by family-centered neighborhoods or would exist in other areas of a city.

3.2 Origins of Perry's Neighborhood Unit concept

What is noteworthy about Perry's work was not its originality but rather his ability to synthesize knowledge from a number of fields. His influences are thus important. I discuss four in this section: Perry's work in the Community Center movement, early sociological theory, the influence of urban planning ideas, and his familiarity with contemporary real estate development practices.

Clarence Perry was a social worker who was hired by the Russell Sage Foundation soon after its inception in 1907. His early work for the Sage Foundation was in the community center movement. Somewhere between Hull House and YMCA, the community centers that Perry advocated were to be places where neighborhood residents could play games, sing and dance,

and meet to talk about common problems. During this period Perry wrote scholarly articles in sociology as well as pamphlets – under the imprint of the Division of Recreation of the Russell Sage Foundation – that described in practical terms the benefits of a community center for its residents, how to start community centers, what to do when facing opposition from a local board, and how to manage centers (Perry 1913, 1914, 1920, 1921). He identified elementary schools as particularly good sites because the center could make use of existing facilities. It was this early work in the community center movement that led to Perry's particular focus on the elementary school as the center of the neighborhood unit.

Slow progress in the community center movement and the limited success of centers that were created diminished Perry's enthusiasm. He thought that the centers would create an environment for the kind of face-to-face association that would foster community development in neighborhoods, but the movement simply wasn't transformative in the way he expected. The core belief that every neighborhood should have a place to call its own – Perry suggested that the elementary school serve as the "capital" of the local community – remained. In his second decade of work, however, his focus shifted from providing neighborhood facilities to fixing the planning of neighborhoods themselves.

The importance of planning the physical layout of neighborhoods was put into relief by the widening adoption of automobiles, particularly in the boom times after World War I. Perry was concerned with the impact of the car in two ways. First, increased auto use made streets significantly more dangerous. New York in Perry's time was dense and congested. Before its phases of playground construction and residential decongestion many children played in the

streets. By the twenties an average of more than one child every day was killed in street

accidents, making safety a popular and pressing concern. Second, adoption of the car spurred the

construction of throughways slicing through residential neighborhoods that were inhospitable to

pedestrian use. The tasks of retrofitting cities and planning throughways for new areas of growth

predated planning for cities themselves, an omission that Perry sought to rectify. (Note that

Perry was evidently unaware or unconcerned with negative consequences of sprawling

deconcentration that automobiles would enable).

Fortunately for Perry, his employment at the Russell Sage Foundation exposed him to (at the

time) new ideas in a number of fields that would help inform development of the Neighborhood

Unit concept. Not least was sociological theory. Clarence Perry's work was heavily influenced

by Cooley, McKenzie and other theorists in the Chicago School of sociology. Cooley saw the

local neighborhood as a "primary group" – the first significant social grouping larger than the

family. Along with other types of primary group – kinship, ethnicity, class, and occupation – it

is through local neighborhood groupings that we associate with the larger world. In the RPA

monograph Perry quoted Cooley: "By primary groups I mean those characterized by intimate

face-to-face association and cooperation. They are primary in several senses, but chiefly in that

they are fundamental to informing the social nature and ideals of the individual. The result of

intimate association, psychologically, is a certain fusion of individualities in a common whole, so

that one's very self, for many purposes at least, is the common life and purpose of the group"

(Perry 1929b, p. 126)

In Perry's eyes, the local neighborhood was unique compared with other primary groups in that it introduced individuals to people unlike them. That is, he saw the local neighborhood as a place of diversity, and hence a particularly critical primary grouping in mediating an individuals relations with society as a whole. He quoted Park and Miller (in Park et.al. 1925) in this regard:

> "Organizations, beginning in the family and community, are the means by which men regulate their lives. The healthy life of a society always depends more on the spontaneous organization of its members than on formal legal and political regulations. It is only in an organized group – in the home, the neighborhood, the trade union, the cooperative society – where he is a power and an influence, in some region where he has status and represents something, that man can maintain a stable personality."

Perry arguably misunderstood this point. If neighborhoods were diverse in New York in his time, it was because they were dense, congested, and changing – the very things that Perry sought to discipline. Perry was well aware that the exemplary neighborhood developments of his day were homogenizing – i.e. they offered just a single type of housing or housing for a single income level. He acknowledged this in several places within the RPA monograph – in the introduction, in the fifth chapter, when he discusses Forrest Hills Gardens, and in his conclusion. While in some places he spoke of the Neighborhood Unit as diverse and as an important element of socializing citizens into democraticy society, in others he spoke approvingly of establishing neighborhoods with homes of like character (citing, e.g. Nichols' Country Club District). This tension would continue to be problematic for Perry's Neighborhood Unit concept.

The connections between sociological thinkers and those, like Perry, who were concerned with urban form was cemented in 1917 with the founding of the American City Planning Institute and the decision to locate it on the University of Chicago campus on Chicago's south side. Thereafter Chicago School sociologists would become increasingly interested in social problems connected with urbanization in large industrial cities. The exchange was reciprocal. Of those who influenced Perry, McKenzie advanced ideas on the importance of association – and the lack of spontaneous social organization in slums (McKenzie 1923). Others developed work on immigrant communities, on gangs and juvenile delinquincy as evidence of social disorder, on the influence of mass media, and on framing sociological relations in ecological terms (Park et.al. 1925). All were connected to problems of the large industrial city. Perry was essentially a social worker, but he did participate in sociology, writing about community centers, immigration, and means of measuring living modes [Perry 1913, 1920). Perry actually presented his initial ideas for the Neighborhood Unit at a conference of the American Sociological Association in 1923.

For Perry, then, the social argument for the Neighborhood Unit went like this: the local neighborhood is the means through which we relate to the larger world, a fact that is particularly important in childhood development. The physical form of cities, in their patterns of streets, blocks, and lots, has an obvious influence on association and community life. The wrenching, haphazard growth of industrial cities produced residential neighborhoods unsuited to community formation. By thinking about neighborhooods in a comprehensive fashion it is possible to create the kind of environment conducive to healthy social/community life, the goal being physical environments able to engender, and not preclude, spontaneous social organization.

Concomitant with developments in sociology were a series of advances in urban planning and design. In the early decades of the twentieth century, American urban planning was heavily influenced by Ebenezer Howard's Garden City movement in the United Kingdom. Howard's vision – a network of self-contained cities of 30,000 people, with each city surrounded by natural and agricultural land, containing a full mix of land uses including industry, and owned and developed collectively by the municipality – was more directly influential to Clarence Stein than Perry. Perry would draw as much from the architectural style of Garden City developments like Letchworth and Hampstead Garden Suburb as he did from Howard's principles. For instance, Perry cited Hampstead's central court, with its well-defined green framed by community buildings, as an exemplary example of community focused neighborhood center. Still, in the Garden City Howard articulated a normative vision for urban development, one backed with clear, compelling diagrams, a practice that Perry would emulate with the Neighborhood Unit.
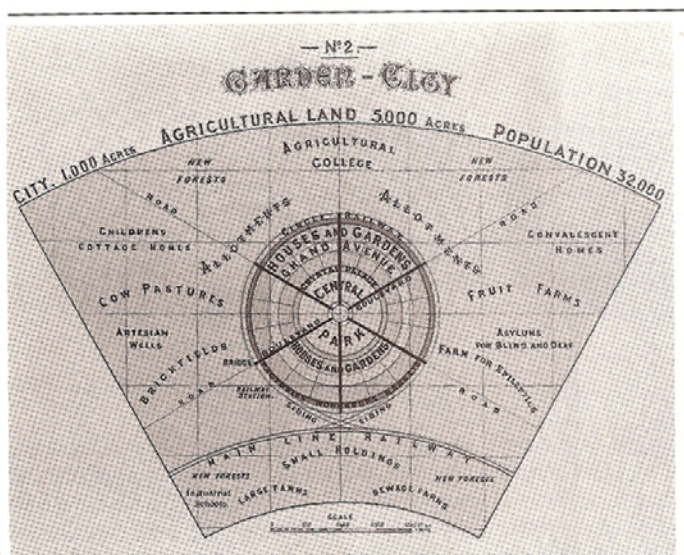

Figure 3.6. Ebenezer Howard's Garden City concept. (Howard 1902)

More influential than Ebenezer Howard were two figures that came out of the British Garden City movement. First was Raymond Unwin, who with Barry Parker designed Letchworth and

Hampstead Garden Suburb. Unwin lectured widely in the United States, including at the Russell

Sage Foundation in 1919 (Simpson 1985). Perry first met him at the third National Conference

on City Planning in Philadelphia in 1911. Perry was influenced both by Unwin's designs and by

his pamphlet *Nothing Gained by Overcrowding*, published in America in 1918. In *Nothing*

Gained by Overcrowding Unwin discusses ways of increasing the amenity level of residential

developments without increasing their cost, chiefly by economizing on the size and layout of

streets and blocks. Unwin's influence on the superblock layout of Stein and Wright's Radburn is

more well-known, but he also influenced Perry's separation of circulation systems within and

surrounding the Neighborhood Unit. The influence is most overt in Perry's diagram showing

how the Neighborhood Unit could be applied to the redevelopment of five blocks of the
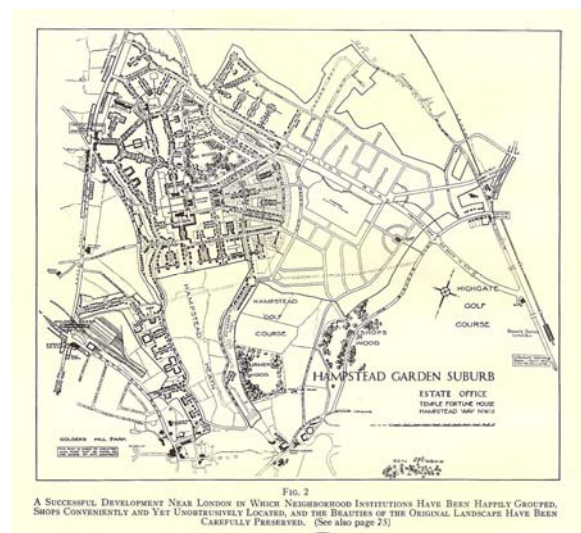
Manhattan street grid.

Figure 3.7. Hampstead Garden Suburb in the RPA monograph (Perry 1929)

The second figure was Thomas Adams, who managed the development of Letchworth and was

the first secretary of Howard's Garden City Association in England. Adams emigrated to North

American in the teens, first to Canada and then to the U.S., and was instrumental in establishing

American planning institutions to advance knowledge first generated in the British experience. Adams founded the Town Planning Institute of Canada, was the first vice president of ACPI, and would become the director of the Regional Survey of New York and Its Environs (Simpson 1985). In this role he worked closely with Perry to develop the monograph for the Neighborhood Unit, contributing his own knowledge and pointing Perry to useful experts and exemplary projects. In many ways Adams's contribution to advancing the Neighborhood Unit concept is equal or greater than Perry's.

A significant American planning contribution to Perry's development of the Neighborhood Unit concept was two competitions sponsored by the City Club of Chicago, the first in 1912 and the second in 1914 (Yeomans 1916). Both received financial support from the Russell Sage Foundation, which also provided funding for Perry to attend their exhibitions, and were widely publicized in professional circles. The first City Club competition called for new ideas for developing residential neighborhood on a hypothetical ¼ mile section of the Jeffersonian grid somewhere on the southern outskirts of the city of Chicago. The second focused on the design of a community center for such a neighborhood. The program for the competition contained many of the elements Perry would use to construct the Neighborhood Unit: the ¼ mile radius, 160 acre area, development focused on residential uses but incorporating additional community facilities, connected to employment and industrial uses in the larger city via transit. Even an idiosyncrasy about the competition format helped to shape the Neighborhood Unit: because the program called for a neighborhood within the Jeffersonian grid in place in Chicago, not just the size of the neighborhood but also the location of arterial roads was prescribed. This essentially dictated solutions with an internally coherent street network distinct from the inter-neighborhood arterial

system at the neighborhood edge. The winning entry, by architect William Behrens, presages

Perry's concept in a number of ways, collecting community facilities at the center and

incorporating a commercial node along the neighborhood edge. William Drummond, who

contributed one of the lesser entries, actually coined the term 'neighborhood unit'. Drummond's

plans show how the neighborhood unit pattern might be repeated to form an urban fabric,

although Drummond had none of Perry's fully developed principles, reasoned argument, or

moral weight.

Figure 3.8. William Behrens' winning entry for the 1912 competition (Yeomans 1916)

Finally, Perry drew from three projects built by community minded organizations in New York.

The first, Forrest Hills Gardens, was developed by the Sage Foundation Homes Company (a

subsidiary of the Russell Sage Foundation) in 1911, in partnership with developer Edward

Bouton. Perry lived in Forrest Hills Gardens for a number of years. Both its design (by

landscape architect Frederick Law Olmstead Jr.) and its development scheme made a great

impression on him. The second and third, Sunnyside Gardens and Radburn, were built by

Alexander Bing. Here Perry wrote admiringly particularly concerning their schemes to create
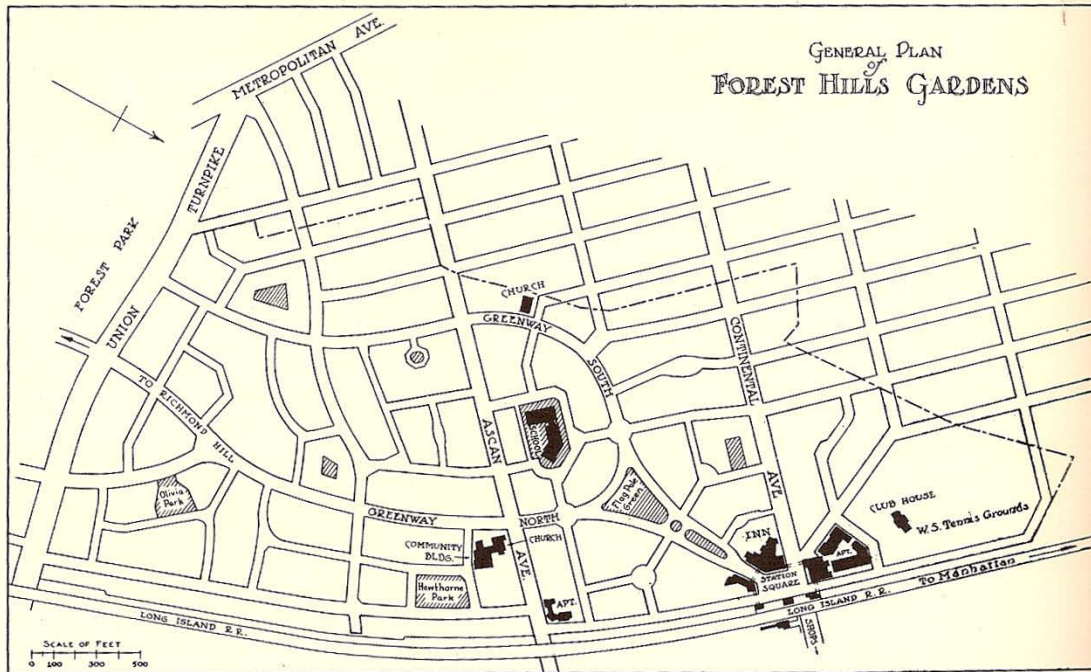
park and recreation space.

FIG. 34
A RESIDENTIAL DEVELOPMENT WHICH WAS MOTIVATED BY A SOCIAL, AS WELL AS A COMMERCIAL, PURPOSE
90

Figure 3.9. Forrest Hills Gardens in the RPA monograph (Perry 1929)
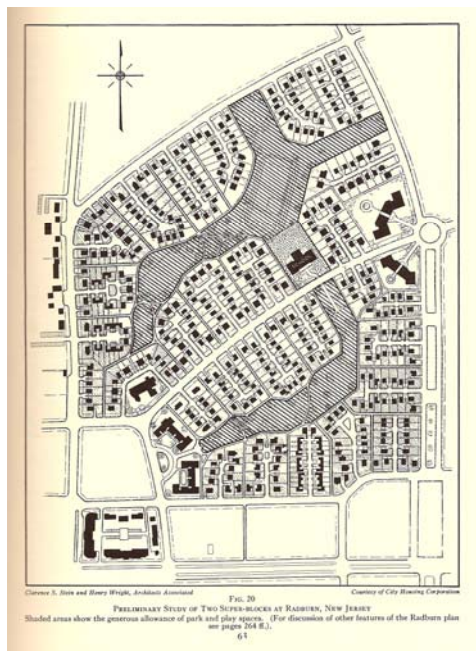
Figures 3.10, 3.11. Sunnyside Gardens and Radburn in the RPA monograph (Perry 1929)

Finally, Perry was influenced by innovations in the real estate development industry in the decades prior to development of the Neighborhood Unit concept. Development at the time was driven by the desire to secure the maximum value out of high-end residential development. This led to investment in architectural quality, provisioning of neighborhood amenities, and the comprehensive planning of development. Besides Edward Bouton, whom Perry knew first from Forrest Hills Gardens, Perry cited Kansas City developer J. C. Nichols, whom he knew through their mutual participation in ACPI. While a number of other developments lay completing claims to being "the first suburb", Bouton and Nichols introduced and refined a number of important innovations, innovations that would usher in modern suburban development practices. The relationship between planners like Clarence Perry and Thomas Adams and developers like Edward Bouton and J. C. Nichols would be mutually influential.

Bouton's Roland Park development in Baltimore, begun in 1893, is by most accounts the first

modern suburb. Planned by the Olmstead Brothers, it was built on a wooded and steeply sloped

site a few miles uphill from the Baltimore harbor, next to the new Johns Hopkins University.

Roland Park featured large, well appointed houses and a system of footpaths first introduced at

Central Park. It lacked the coherent neighborhood structure of the Neighborhood Unit, but

introduced well-designed local shopping center. Forrest Hills Gardens built on Bouton's

experience at Roland Park. Though two arterial roads went through the development, its

winding streets were designed to reinforce its neighborhood cohesion. Interior collectors fed into

a commercial node at the corner that was linked to the transit station and the larger commercial

corridor of Forrest Hills proper.

Roland Park was pioneering in part because of the system of development controls built through

covenants and restrictions placed on the deeds of the properties. These restricted the kinds of

buildings and land uses that could be developed on a property, and established minimum

standards for the cost and architectural quality of housing. This was an important innovation

because it provided stability and predictability to prospective buyers. Homes were worth more

to buyers if they could be certain that commercial traffic and industrial uses would not come into

the surrounding area, and if they could be sure that the "right kind" of people would move in as

neighbors.

In Forrest Hills Gardens Bouton introduced the use of a homeowners association to enforce the

codes, covenants and restrictions (C,C&Rs) once the development was complete. The

homeowners association also maintained the neighborhood's common facilities – the parks,

playgrounds, and greens.   Perry, who devoted a full chapter in the RPA monograph to the Forrest Hills Gardens Neighborhood Association, saw in it the kind of spontaneous social organization that social theorists viewed as a hallmark of healthy neighborhoods – this despite the fact that it was essentially a creation of the development company.

FIG. 9
RESIDENTIAL "CHARACTER" AS EXHIBITED IN THE "COUNTRY CLUB DISTRICT" NEAR KANSAS CITY, MO.
Courtesy of the J. C. Nichols Companies

Figure 3.12. The Country Club District in the RPA monograph (Perry 1929)

J. C. Nichols built on the innovations that Bouton pioneered in the Country Club District in Kansas City, and he played a major role in developing planning and real estate development institutions to further this kind of work. The Country Club District was a three thousand acre development built out over the course of thirty years beginning in 1906. Sited among golf courses south of the newly developed Ward Parkway, the Country Club District drew on many of the architectural features common to Garden Suburb style developments. Neighborhoods within the district, though, were given their own architectural style in order to heighten their individual identity. Each had one or more home owners associations, created to enforce C,C&Rs. Significantly, Nichols based the size of the homeowners associations – between 500-700 houses – not on sociological norms of community size but rather on how many houses his company would build and sell in a given year. This allowed homeowner associations to get up and

running quickly, giving residents more control over their surrounding and limiting Nichols' involvement in built out districts.

The Neighborhood Unit concept was a product of Perry's extensive experience and connections in social work, sociology, urban planning, and development arenas. It can be seen as a reflection of broader developments in planning, in which new attention to the quality of the city fabric itself, and not just its public edifices, resulted in new practices, institutions, and regulatory mechanisms, guided in part by the leading contemporary thinking in social science. Three points in particular are important. First, Perry's interest in neighborhood scale planning was driven in part by his disappointment at the failure of the community center movement to affect his ideals. Second, many of the design elements of the Neighborhood Unit – its spatial size, community institutions centered on a green, even the term neighborhood unit – were drawn from twenty plus years of best practices in urban planning and real estate development. Finally, for Perry, who was motivated by communitarian ideals, as important as the design principles of the Neighborhood Unit were its control mechanisms – CC&Rs, homeowners associations, and the importance of comprehensive planning of a neighborhood as a cohesive unit.

3.3 Perry's thesis

Perry's thesis was directed at the same audience as the rest of the first regional plan of New York – the whole of the environs within a two hour train ride of the city. This context – as well as the temporal context of the twenties – helped shape Perry's work. Perry's work is interpreted

somewhat differently today than in earlier decades in part because some aspects of urbanization that were common the twenties are now seen as rather remarkable. Walkability is one such example. While Perry discussed walkability occasionally in the RPA monograph, it was not a major principle of Perry's Neighborhood Unit concept – no doubt because most development in New York in the twenties was already walkable. It is therefore important to examine a few aspects of Perry's thesis in detail, so we can understand the particular argument that Perry was making. Here I will trace how Perry determined the size of the Neighborhood Unit and then touch on his principles of street design. I will discuss his argument for shopping centers, both as an example of the community ammenities to be included in the Neighborhood Unit and because it will be important to what happens with the subsequent diffusion of the concept.

The central premise of Perry's argument was that a neighborhood should contain enough homes to house the population required to necessitate a single elementary school. Perry surveyed municipalities and drew from professional experts to determine a figure for this population, beginning with determining a proper size for an elementary school. He found that in larger cities elementary schools were then being built for 700-800 pupils, although Chicago averaged 966 pupils and New York 1200 (with wide variability). In towns and smaller cities elementary schools were typically being planned for 400-500 pupils. The Sage Foundation's education consultants recommended a school population of 1000-1200 pupils because schools with a minimum of twenty four classrooms (at forty students per classroom) could more economically handle a variety of specialized facilities like gymnasiums and libraries. The consultants suggested that elementary schools should be larger than was common current practice.

Synthesizing survey data and expert knowledge, Perry suggested a lower bounds of 800 pupils

and a higher bounds of 1500 people as a rough ideal.

He then calculated an ideal population size for a neighborhood based on this ideal school size.

He did this based on census information: roughly 1/6 of the US population was school aged in

the 1920 census (this varied from a high of 21% in South Carolina and a low of 12% in

California). With an elementary school aged population between 800 and 1500, this would lead

to a total neighborhood population between 4800 and 9000 people. With an average household

size, according to the 1920 census, of just over five people, this would mean a minimum of 1000

houses in a neighborhood unit. Perry suggested that this should be for a typical neighborhood of

single family houses, and might differ slightly with apartment units or in a city like New York

where the household size tended to be smaller.

Perry acknowledged that this figure was somewhat higher than contemporary norms for home

owner associations, implicitly recognizing Nichols' practice of including 500-700 houses in

homeowners associations. This is one of many examples where Perry synthesizes a variety of

development norms – from schools, from housing, from real estate developers perspectives on

housing, and so on.[7] The success of Perry's Neighborhood Unit concept lied in his ability to

create a set of principles that worked well for the neighborhood as a whole without being

problematic for any of its elements.

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[7] This is also an example of Perry drawing principles from a development that was intentionally homogenous and even exclusionary, despite Perry's expectations that the Neighborhood Unit would facilitate interaction of people with diverse economic, occupational, and ethnic backgrounds. While the Country Club District as a whole included a variety of housing types, Nichols intentionally planned each of the neighborhoods and their home owners associations to have a single type and class of housing. Deeds on homes in Country Club District neighborhoods included both covenants mandating the minimum size and cost of homes and restrictions preventing their sale to African Americans.

TABLE VI.—ACREAGE OF 1,000 LOT SUBDIVISIONS AT VARIOUS LOT SIZES WITH 40 PER CENT DEVOTED TO STREETS AND OPEN SPACES

Size of plot	Houses per net[1] acre	Acres
100 x 200	2	765
100 x 150	3	574
100 x 100	4	383
75 x 100	6	287
50 x 100	9	191
40 x 100	11	153
25 x 100	17	96

[1] "Net" means the area of land built upon—apart from area in streets and open spaces.

Figure 3.13: a table analyzing the land area of a subdivision under a variety of lot sizes. The 40' x 100' lot provided the requisite number of houses to form a 160 acre Neighborhood Unit (Perry 1929b)

Concerning the density of residential environments Perry was surprisingly pragmatic. He calculated the size of subdivisions of 1000 homes at a range of lot sizes, from 25' x 100' (typical of Chicago) to 100' x 200'. With 40% of land given to streets and other infrastructure, homes built on 40' x 100' lots would fit 1000 homes into 160 acres – this was also close to the density (twelve units to the acre) that Unwin advocated (Unwin 1918). He would go on to argue that this density worked well for each of the components of the neighborhood. Spatial size was not his primary concern here, however. Rather he mentioned the 160 acre size with its ¼ mile travel radius to justify his determination that a unit of 1000 families was appropriate when taking other elements of the neighborhood unit into consideration. Perry's openness in this regard is reflected in his first principle for Neighborhood Units: "A residential unit development should provide housing for that population for which one elementary school is ordinarily required, *its actual area depending upon population density*" (italics mine). Because Perry intended the Neighborhood Unit concept to be applicable to any area within the New York region he was open and amenable to a variety of densities. Urbanists today are most familiar with the

Neighborhood Unit through the diagram that includes the circle with a quarter mile radius, but

Perry did not view this as absolutely necessary. What was important was that a neighborhood

include the number of houses needed to support an elementary school[8].

For Perry the importance of planning the physical layout of neighborhoods as cohesive units was

put into relief by the widening adoption of automobiles, which both made streets significantly

more dangerous and spurred the construction of wide auto-oriented highways that sliced through

the formally tightly woven fabric of urban streets. Perry sold neighborhood units as logical in

the RPA monograph because New York was already getting sliced into cells that approximated

his norm for the spatial dimensions of a neighborhood. Neighborhood Units could then be

fenced by highways, and if it was still dangerous and unpleasant to cross the highways from one

neighborhood to another, the principles of the Neighborhood Unit would at least allow everyday

needs to be met within a single unit. The final principle of the Neighborhood Unit concept – that

"the unit should be provided with a special street system, each highway being proportioned to its

probable traffic load, and the street net as a whole being designed to facilitate circulation within

the unit and to discourage its use by through traffic" – was a play off of the contemporary fad for

street widenings that supported faster auto speeds. Cars could have highways at the edges of

neighborhoods, Perry argued, but streets within neighborhoods should be for the neighborhoods

themselves.

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[8] Because Perry juggled a variety of spatial norms based on particular elements of the neighborhood, (and because we know that Perry was familiar with the competition), it is safe to agree with Johnson (2002) and consider it likely that Perry borrowed the size of the Neighborhood Unit from ¼ square mile section of the Chicago Club competition and then built his argument around it.

Perry did not elaborate much on the principle of local streets. In some of his diagrams he borrows from the curvilinear network of Forrest Hills Gardens. In others he eliminates interior streets to create larger blocks, echoing Unwin's argument in *Nothing Gained by Overcrowding*. The principle, though, was important. It would be developed much further in the coming decades by real estate developers and civil engineers.

I next want to discuss Perry's argument for neighborhood shopping in greater depth for two reasons. First, it sheds light on the tension between what should be internal to the Neighborhood Unit and what needs to be excluded from it. Second, Perry's argument was important in establishing the planned shopping center as a development typology. I will argue later that this was one of the more important impacts of the Neighborhood Unit concept.

Perry acknowledged in the RPA monograph that business activities could have a blighting influence on residential neighborhoods. Nevertheless, he maintained that there was a benefit to having shopping within walking distance of the home, particularly for housewives, children, and domestic servants that spend most of their time at home. He justified this claim by noting that shopping was found in even the best of neighborhoods – he cites New York's posh Upper East Side. Therefore it was important to plan neighborhoods so that they include shopping facilities, but work to minimize their negative effects.

Perry's first step is to determine what kinds of shops belong in the neighborhood – that is, which stores serve everyday needs and which involve more specialized or more infrequent transactions. He did this by surveying proprietary data from AT&T on business location in seven US cities,

looking at how many of a given kind of shop are in a given city. In Perry's methodology, store types that occur in a city more frequently than an average neighborhood population should be incorporated within the Neighborhood Unit. That is, if there is more than one drug store for every 4800-9000 people it could be said that a drug store is likely to serve local needs and belong within a Neighborhood Unit. From this analysis Perry concluded that shopping within a neighborhood might include groceries, drug stores, garages, restaurants, a bakery, hotel, dry goods store, clothier, laundromat, dry cleaner, and businesses selling coal, flowers, jewelry, hardware, etc., and not department stores, banks, furriers, and stores specializing in musical instruments, sporting goods.

He determined the size of shopping facilities required for a Neighborhood Unit by synthesizing this kind of information with data from municipal planning surveys. A general principle was that cities contained 50' of retail frontage for every 100 people. Perry suggested that a neighborhood of 6,000 people should have roughly seventy stores, a bank, ten garages, with 3,000 ft of total retail frontage. With lots at 100' depth, this would mean 16.9 acres of retail space in each unit.

Perry acknowledged that these principles governing shopping were rough. Also, while treating them as a general rule in the monograph, he suggested that they be viewed as maximums rather than ballpark averages due to the disproportionate amount of retail space that tended to be located in the downtowns of cities. A neighborhood should contain retailing space to serve everyday local needs, but the department stores with the biggest retail space were downtown – and, in Perry's mind, likely to remain so.

Still, cities tended to allot too much acreage to shopping in outlying areas, with stores sprawling on the arterial roads that spread out from a city center. Ironically, this problem was exacerbated by the zoning and planning controls whose use became widespread in the twenties. In what Perry felt was a typical error in judgement of the planning profession, *all* of the land abutting arterial roads tended to be zoned for commercial use, a gross overzoning. Where unfettered development sprinkled commercial uses along the main roads going through neighborhoods, zoning tended to preclude these roads from all but commercial use. This engendered not just the full range of commercial uses of varying degrees of fit to residential areas but vacant and underutilized lots that could not be put to their best use. In being too accomodating to commercial sprawl, zoning exposed a much larger area of homes than was necessary to the blighting effect of adjacent commercial uses.

Perry's solution was to group stores together in a unit (he expected that one or more such grouping was likely necessary in a single neighborhood unit) and locate them along the main thoroughfares at the periphery of the neighborhood. Internal streets can then be designed to lead back from the shopping center to the community facilities at the center of the neighborhood. Perry viewed this solution as at once practical and protective. Within the neighborhood stores would be easily accessible, and located along the main thoroughfares and at transit nodes, they would be on the way to and from work. If planned thoughtfully as a unit, shopping facilities could fit in with the general character of the neighborhood, with appropriate architectural styles and stores selected to serve only the local community. Further, comprehensive planning would limit where stores were sited, protecting homes from unwanted traffic and other forms of blight.

3.4 Conclusion

Examining the context in which Perry developed the Neighborhood Unit concept alongside the argument he makes for it serves two purposes. It grounds the concept in the concerns of the time (it explains motivation), and it connects it to historical antecedents that shaped its development (it explains the solution). In the chapters to follow five points should be kept in mind. Perry's innovation in the Neighborhood Unit concept was to graft communitarian ideals onto planning and real estate development concepts that had developed over twenty years, synthesizing them and investing in them a moral authority. The size of the Neighborhoood Unit was not primarily spatial; governed by the elementary school it was suitable to a range of densities; the 160 acre size was more likely inhereted from Forrest Hills Gardens and the City Club of Chicago comptetitions. Perry thought that comprehensive planning was critical, and must be backed by public and private controls. The idea that neighborhoods must be planned and developed *as units* would prove to be one of the most consequential aspects of the concept. With a strong internal coherence and strong boundaries, the greatest tension in the Neighborhood Unit concept was what would be included in the neighborhood and what should be left out, something that was most acutely felt in the inclusion of shopping facilities. Finally, Perry's use of real estate development norms and socological theories sometimes conflicted with his aspirations for a universal model and his belief in the communitarian and democratic values of the Neighborhood Unit.

CHAPTER 4 ADOPTION OF THE NEIGHBORHOOD UNIT

The following chapter concerns the adoption of Perry's Neighborhood Unit concept in the real estate development industry. I first examine real estate developer participation in urban planning. Next I examine the capacity of the Neighborhood Unit concept to meet the needs of real estate developers participating in urban planning. I then discuss use of the Neighborhood Unit concept by the Federal Housing Administration, the federal intervention most favored by the real estate development industry during the Great Depression.

I argue that the real estate development industry adopted the Neighborhood Unit concept both because it met the industry's need for *coordination, design and engineering,* and *control* (Weiss 1987) and because it was easily grafted onto existing practices. The adoption occurred in stages: leading subdividers like J. C. Nichols and Hugh Potter were early adopters (Rogers 2003). Institutionalization of the Neighborhood Unit concept through the President's Conference on Home Building and Home Ownership and Federal Housing Administration policies furthered its use. Smaller home builders (represented beginning in the forties by the National Association of Home Builders) adopted the Neighborhood Unit concept only partially. Nevertheless, adoption of the Neighborhood Unit concept catalyzed a profound structural shift in urban development and the regulation of urban development. Though pragmatic and applied piecemeal, it had a significant impact.

4.1 Real estate developers participate in urban planning

To understand why the real estate developers that would eventually become the Urban Land Institute's Community Builders Council adopted Perry's Neighborhood Unit concept, it is useful to keep in mind that in the first decades of the twentieth century American city planning was an emergent field. The first National Conference on City Planning occurred in 1909, the first journal (*The City Plan*) began in 1915, and the first professional organization (The American City Planning Institute) was founded in 1917. The first American collegiate course in planning was given at the University of Illinois in 1913; the first full program established at Harvard in 1923 – both of which were influenced in part by the first English planning program begun at Liverpool in 1909.

Always highly interdisciplinary, city planning was particularly so in this early period. In the three years that *The City Plan* was published before it was reconstituted into the ACPI's journal, for instance, contributing authors included architects (George B. Ford, Frederick Ackerman, Charles Cheney), engineers (Arthur C. Comey, E. P. Goodrich, Nelson P. Lewis, Morris Knowles, Harland Bartholomew), landscape architects (Frederick Law Olmstead Jr, John Nolen, Charles W. Elliot, George Kessler), lawyers (Hon. George McAneny, Andrew Wright Crawford) and real estate developers (Paul A. Harsch, E. B. Bouton, Ingersoll) in addition to lay and professional figures focused most closely on city planning (Walter D. Moody, Thomas Adams, Charles Mulford Robinson, Dr. Werner Hegemann, Lawson Purdy)[9]. Many of the professions that contributed to the nascent planning institutions also had planning committees within their disciplinary organizations. A prominent example of this was the American Society of Civil

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[9] *The City Plan* was the quarterly journal of the National Conference on City Planning, published between 1915 and 1918.

Engineers which formed a City Planning Division in 1924 under the leadership of Harland

Bartholomew. Real estate development was no different. In the early part of the twentieth

century the most important organization in real estate development was the National Association

of Real Estate Boards (NAREB). NAREB formed a City Planning Committee as early as 1914,

which became the primary organization for leading subdividers prior to the Urban Land

Institute's Community Builders Council.

The main participants in city planning from the development world were large subdividers like

Edward Bouton, Irving Heitt, and J. C. Nichols. Bouton participated in the NCCP from its

inception. Nichols chaired the organizing committee for the 1917 NCCP conference where

ACPI was founded; Ingersoll, the current president of NAREB, was a keynote speaker. No

fewer than ten realtors were founding members of ACPI[10]. Such real estate developers played an

important role in advancing city planning where it concerned the platting of new land and the

development of residential neighborhoods – a particular area of interest as planning

professionalized and evolved from a City Beautiful movement to the City Efficient.

They also drew from the network of professional consultants brought together in the early city

planning institutions. Bouton employed the Olmstead Bros. to design Roland Park and worked

with Frederick Law Olmstead Jr. and the Sage Foundation Homes Company to develop Forrest

Hills Gardens. Nichols developed the Country Club District in conjunction with the Kansas City

boulevard system designed by George Kessler.

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[10] According to *The City Plan*, v.3, 3 (1918).

This network was further advanced through participation in federal committees and organizations. After serving as president of NCCP, Olmstead Jr. moved to head the United States Housing Corporation during World War I – an effort supported by NAREB and staffed by John Nolen among others. Advisory committees convened by Herbert Hoover to help develop the Standard Zoning Enabling Act and Standard Planning Enabling Act included Olmstead Jr., Edward Bassett, and NAREB president Irving Hiett.

The Russell Sage Foundation was an important nexus for such activities. As I mentioned in Chapter 3, the Sage Foundation provided financial support to many of the initial planning activities and institutions. Bouton was familiar with the Sage Foundation network through the development of Forrest Hills Gardens. The Advisory Planning Group that the Sage Foundation convened in 1923 in anticipation of the Regional Plan of New York and Its Environs included Thomas Adams, Harland Bartholomew, Edward H. Bennett, George B. Ford, Ernest P. Goodrich, John Nolen, and Frederick Law Olmstead Jr. Leading subdividers drew on such committee networks to hire professional consultants. Bennett and Whitten helped to write a draft of the Standard Planning Enabling Act. Many of the Sage Foundation board members and contributors participated in Hoover's President's Conference on Home Building and Home Ownership.

Each of these arenas – city planning organizations, development projects, federal committees, and civic institutions – served developers by connecting them to an elite group of professionals in a variety of fields.

Like city planning, real estate development in the early twentieth century was an emergent field. NAREB represented real estate agents, land planners and subdividers, and some developers. It did this essentially as a lobbying body: the standards, ethical codes, and legal regulations on practice indicative of true professions (Freidson 2001) emerged more slowly even in real estate than city planning. In organizational terms an important facet of this was the emergence of a distinct subdividers group within NAREB. ULI's foundation later in the thirties was a result of the need to have a research institute for urban development distinct from lobbying groups and able to be seen as unbiased[11]. Real estate developers like Bouton and Nichols participated in city planning because planning's nascent professional institutions were the prime venues for the research and dissemination of the knowledge, methods, and tools for urban development.

Weiss (1987) has ably described the dynamics of real estate development in the first decades of the twentieth century. American urbanization in this time period was a laissez-faire system with minimal regulation and few barriers to entry. Raw land was first platted and subdivided and then sold to other parties to be developed on a lot-by-lot basis. Development was dominated by small contractors in the case of residential lots and by individual proprieters in the case of commercial and industrial uses. Infrastructure – roads, sidewalks, water, stormwater, and sanitary sewers, utility lines and the like – were developed after the process of subdivision on an ad hoc basis, generally through surcharge taxes imposed on owners of adjacent lots based on their street frontage. Property owners were free to develop their lots as they saw fit, tempered only by the threat of nuisance lawsuits. The system was chaotic. It was rife with uncertainty, created infrastructure and service problems, and tended to encourage the basest form of development.

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[11] It was Walter Schmidt's intent that the Urban Land Institute be an educational school affiliated with an established university (Eskew 1959), but collegiate programs in real estate would not be established until later.

By pioneering methods that addressed the above problems, subdividers like Nichols and Bouton were able to serve a previously unmet need for high-end housing. The most expensive segment of the housing market was dampened because the desirability of homes was dependent on the quality of its surroundings, something that homebuyers could never be sure of in a turbulent and unregulated market. Subdividers overcame this by employing four techniques. First, they assembled tracts of land that were large enough to control the uses surrounding a set of residential lots. Second, they planned and designed the site as a whole, installing infrastructure ahead of time and buffering residential lots from high-traffic arterial streets (the platting of the latter also in essence helped ensure that commercial and industrial development would not be viable in the center of residential neighborhoods). Third, they wrote codes, covenants, and restrictions into property deeds to control the size, design, use, and users of a property. The covenants could stipulate that a lot-buyer would be required to build a house of a minimum size or cost, for example. Finally, they advanced the use of homeowners associations, both to maintain community assets like parks or golf courses and to enforce private deed restrictions once a development was built out. Employed in concert the techniques increased the value of residential properties by ensuring that the surroundings would be developed in a similar fashion to a similar standard for a similar segment of the population, in perpetuity. By stablilizing the market subdividers captured new value.

Because real estate development was a nascent industry, and because these techniques depended on the expertise of a variety of professions, planning conferences and institutions were a critical venue for advancing subdivision and residential homebuilding practices. Weiss describes

planning as fulfilling three purposes for subdividers: it facilitated *coordination* between a subdivision and major streets, city parks, and other municipal investments, advanced the *design and engineering* of subdivisions through research and the development of standards for things like streets and sewers, and lastly exerted *control* over development, policing deceptive practices and helping to restrict competition through increased costs and barriers to entry that came with regulation (Weiss 1987, 6). The first two were advanced through planning forums and the emergence of a urban planning profession working in municipal government. The last helps explain why real estate developers would accept and even encourage a new set of government regulation over their industry.

Rationalizing competition was a significant challenge. Where Lewis Mumford (1961), following Kropotkin, criticized laissez faire capitalism for its speculative greed, subdividers looked to improve the stability and predictability of their livelihoods. Wholly unfettered real estate markets had led to a gross overabundance of subdivided lots and unpredictable boom and bust cycles. The magnatude of this is evidenced in a footnote in the first volume of the President's Conference on Home Building and Home Ownership reports:

> "In metropolitan Cleveland in 1920 there were 125,000 vacant lots and in 1929 this total had grown to 175,000 vacant lots. The total existing lots, vacant and occupied, in 1929 amounted to 375,000. The vacancies, therefore, amount to approximately 47 per cent of the total lots of the metropolitan area and their absorption will be measured in generations, rather than in years (From an unpublished study by the Division of Building and Housing, Bureau of Standards, U. S. Department of Commerce.)

At the present time there are approximately 1¼ million lots platted in Detroit and more than 31 per cent of the newly platted area is undeveloped. This condition of more than 30 per cent in platting in excess of absorption has continued for at least the past three decades. (From figures furnished by the City Planning Commission of Detroit.)

Similar conditions obtain in many American cities…" (Gries and Ford 1932, 2)

Subdividers advanced planning in the hope that things like zoning, subdivision regulation, the neighborhood unit might bring some sense to this phenomenon.

Support for planning increased through the twenties as subdividers worked through the demand for high end residential housing in their respective cities and moved to develop neighborhoods for the middle income market (Weiss 1987, Jackson 1984). The four techniques mentioned above – particularly the assembly and carrying of substantial acreage – imposed additional costs over and above what they invested in Garden City style architecture, streetscape design, and community amenities like parks and shopping centers. Such costs could not be born as profitably in lower-cost housing, leading subdividers to advocate public controls in zoning and subdivision regulation modeled in part on the private restrictions they pioneered.
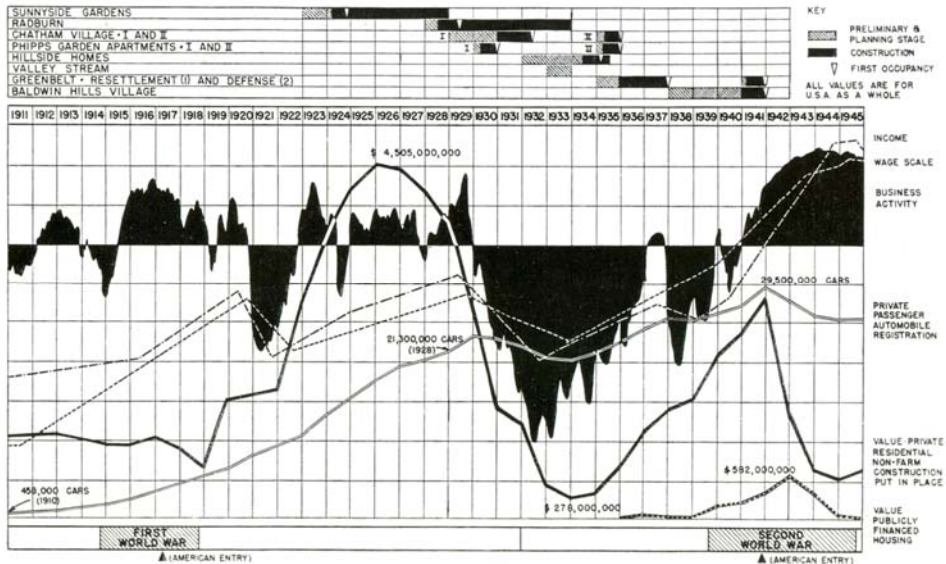
Fig 4.1: Charting U.S. residential construction and business activity, from Stein's Towards New Towns for America (1951). Residential construction peaks after 1925, four years before the general onset of the Great Depression.

These forces became particularly important in the Great Depression, which was led by a real estate bust that began in 1925 four years before the stock market crash. The overabundance of lots in the typical metropolitan region along with the crash in the real estate market essentially killed the subdivision business. It spurred what subdividers that had not already moved into development to do so, transforming them into what was then called operative builders. It also pushed them to embrace government intervention to repair the industry.

4.2 Real estate developers adopt the Neighborhood Unit concept

The brief discussion above is necessarily broad, covering the disciplinary interchange facilitated through planning institutions and the reasons why real estate developers came to support public planning powers like zoning and subdivision regulation. It does not immediately explain why

real estate developers adopted Perry's Neighborhood Unit concept, however. Indeed, in Weiss'

definitive history he mentions the Neighborhood Unit only once. The use of quotations

surrounding neighborhood unit (to say nothing of the phrase's eccentric grammatical structure)

suggest that Weiss viewed the concept as curious and perhaps unimportant:

> "The principle concern of the Committee of Sudivision Layout[12] was to eliminate
>
> curbstoner operations from the subdivision field, and to replace speculative lot selling
>
> with stable, long term "neighborhood unit" single-family housing development [sic]
>
> for the middle-income homebuyer." (Weiss 1987, 143)

I argue, however, that within the real estate industry Perry's Neighborhood Unit concept became

the exemplar by which a host of desired changes (development by district, zoning, subdivision

regulation, etc.) were achieved. That is, it was the model that offered subdividers the

coordination, design and engineering, and *control* that they sought from planning in general.

In order to understand the Neighborhood Unit concept's utility as a model for shifting real estate

development practices, we should first remember that Perry was not unaware of practices in the

real estate industry. Thanks in part to planning institutions like the Russell Sage Foundation, the

National Conference on City Planning, and the American City Planning Institute, Perry had

extensive knowledge of real estate best practices. The Neighborhood Unit monograph (Perry

1929b) incorporated the comprehensive planning, covenants and restrictions, home owners

associations, mannered architectural styles and extensive community amenities advanced in

developments like Nichols' Country Club District. A full chapter of Perry's monograph was

devoted to Forrest Hills Gardens and its home owners association (which Perry conflated with

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[12] Of the President's Conference on Home Building and Home Ownership.

the kind of spontaneous community organization celebrated by Roderick McKenzie (1923)). In

this sense the Neighborhood Unit was a distilation of leading subdivision practices. The

language of the Neighborhood Unit was easily understood by subdividers, and it was therefore
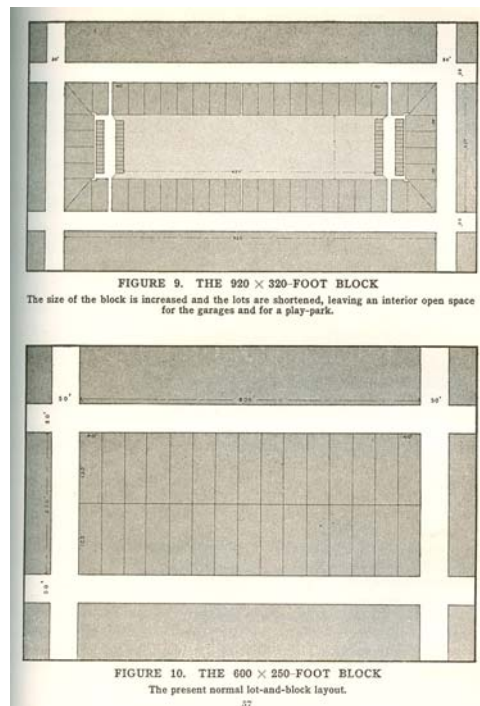
relativley easy apply it in their work.

FIGURE 9. THE 920 × 320-FOOT BLOCK
The size of the block is increased and the lots are shortened, leaving an interior open space
for the garages and for a play-park.

FIGURE 10. THE 600 × 250-FOOT BLOCK
The present normal lot-and-block layout.
57

Fig. 4.2: A means, after both Unwin (1918) and Sunnyside Gardens, NY, for
creating neighborhood park space without an increase in the cost of land
(Whitten and Adams 1927). Note that the block at the top is longer and wider.

One aspect of the Neighborhood Unit that held particular appeal for real estate developers was its

extension of the argument that Unwin first introduced in *Nothing Gained By Overcrowding!*

(1913)[13]. A number of people worked concurrently through the 1920s to examine the postulate

that through careful planning one could introduce light, air, and ample park space into a

residential development for little or no additional cost (Whitten 1927, Perry 1929, Heydecker

and Goodrich 1929, Adams and Basset 1929, Whitten and Adams 1931; Sunnyside Gardens and

[13] See ch. 4.

Radburn were important case developments in this regard). Such research included careful

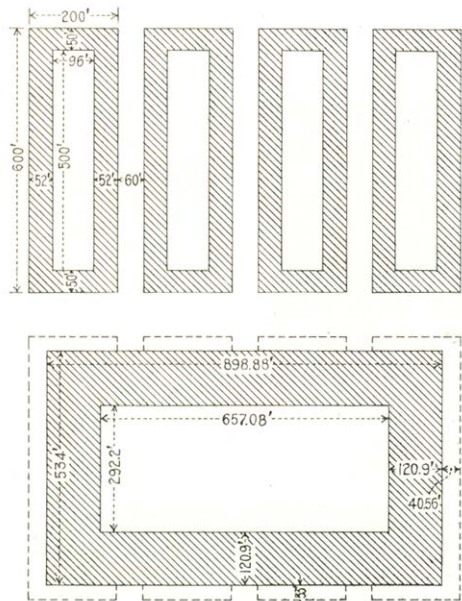analysis of the cost of land and development costs on a per-unit basis.

FIG. 26
THE OPEN SPACE IN THE LOWER RECTANGLE IS THE SUM OF
THE FOUR UPPER OPEN SPACES. THE COMBINED SPACE IS
MUCH MORE USEFUL, EITHER FOR PLAY OR AS A SOURCE OF
AIR AND SUNLIGHT

Fig. 4.3: Perry's version (1929b) developing the argument for a superblock, a criticism of the narrow interior park space of Sunnyside Gardens. The resemblance to Perry's inner city Neighborhood Unit (see fig. 3.4).

Figures 4.2-4.4 illustrate this thinking. Traditional gridiron blocks (bottom diagram of fig. 4.2)

created long lots that were too little used, and gave no space to parkland. Shortening lots and

increasing the block size creates park and playground space on the interior, something that made

a bit of economic sense because it meant less land for roads. This was essentially the Sunnyside

Gardens model. The interior parks of Sunnyside Gardens, though, were cramped and imposed

too much on residents' private space. Perry (figure 4.3) argued that combining several blocks

instead of merely shortening lot depths would carve out a plot sufficiently large to be usable for a

community park. (This is the strategy he used for the apartment block neighborhood unit shown

in figure 3.4). Whitten then extends the idea through the combination of several large blocks

into a neighborhood unit (borrowing the term from Perry, with acknowledgement) close to a mile

wide. A good bit of the appeal of the Neighborhood Unit concept was that the research

demonstrated that there was money to be saved by planning superblocks that could service

residential development with less road length[14]. Though Perry embraced the argument to justify

his communitarian agenda, for many subdividers the appeal was in the argument itself. The

Neighborhood Unit concept was the model by which developers came to understand the value of

---

[14] Radburn is probably now the most famous example of the superblock, but the major research for this point was advanced by Whitten, taking Perry's neighborhood unit concept as his theoretical model.

Analysis of the land development economics of the Neighborhood Unit were developed further by Whitten, Adams and others. Adams collected a number of alternate neighborhood unit plans in *The Design of Residential Areas* (1934) many of which were previously published elsewhere. Some of the plans were very intricate, including double and triple-fronted streets as well as the hexagonal and circular neighborhood unit plans shown here in figures 4.4 and 4.5. The development cost per unit was calculated for each. Easterling (1999) makes much of these diagrams, but their intracacy and rococco eccentricity) limited their usefulness for developers. Still, they reflect the range of innovation possible within Perry's neighborhood unit framework.
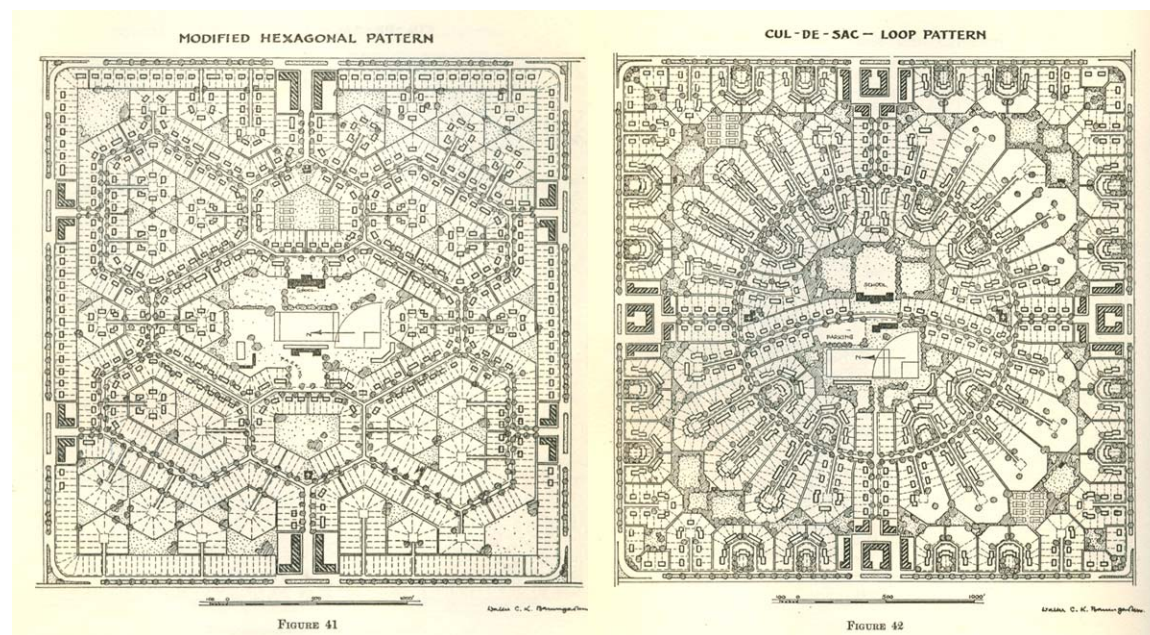
Figs 4.4, 4.5: alternate Neighborhood Unit plans, in Adams (1934).

comprehensive planning of residential districts, rather than simple subdivision and development of land one lot at a time.

FIGURE 14. A NEIGHBORHOOD UNIT ADAPTING THE
920 × 920-FOOT BLOCK

Parts of four 920 × 920-foot blocks are combined and a 395-foot strip is added around the outside. The unit is bounded by 200-foot express highways on which apartment houses front. Local business centers are provided at two of the four entrances to the unit. The large park in the center provides sites for a school and for a community building.
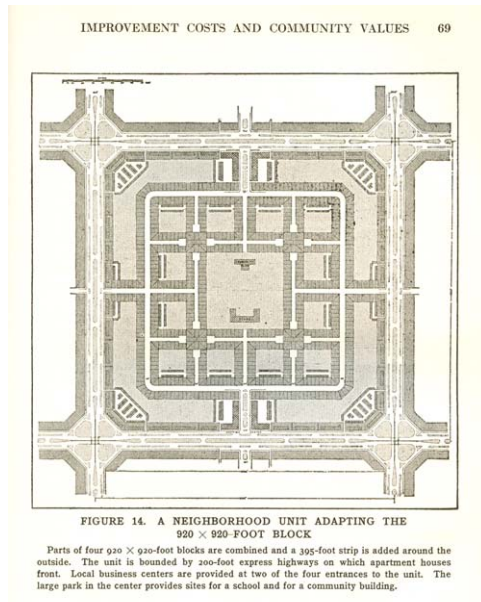
Fig. 4.6: A Neighborhood Unit made of superblocks (Whitten 1927).

The Neighborhood Unit concept also advanced an important argument for planning and control. Adams expressed this nicely in *The Design of Residential Areas* (1934):

> "A home is not a detached unit but a part of a neighborhood, which in turn is part of a
> town; and the good quality of the home usually depends at least as much on its
> surroundings as on its design and construction. Hence the vital importance of ground
> planning and control of the development of neighborhoods."

Subdividers struggled to achieve high home values without comprehensive neighborhood planning – including planning and development of infrastructure prior to homebuilding – and their subsequent control through deed restrictions, zoning, subdivision regulations and homeowners associations. In Perry's eyes the need for planning and control was driven by

sociological concerns rather than commercial ones, but no matter. He culled his methods of

planning and control from exemplary subdivision practices. The Neighborhood Unit concept

synthesized such methods into a lucid model, one that advanced the subdividers' practices by

giving them the imprint of "scientific" research[15].

Interest in Perry's Neighborhood Unit concept came to the fore after the President's Conference

in Home Building and Home Ownership, convened by Herbert Hoover in 1931. The President's

Conference brought together leading experts from a variety of fields to produce a multi-volume

report on the best methods of subdivision, homebuilding and residential development.

Conference participants included a number of figures by now well familiar with Perry's work,

including contributors to the Regional Plan of New York and Its Environs (Thomas Adams,

Alfred Bettman, Frederic A. Delano, Robert Whitten), leading New York City housing advocates

(Henry Wright, Lawrence Veiller, Alexander M. Bing, Frederick H Ecker of the Metropolitan

Life Insurance Company), city planners (Harland Bartholomew, John Nolen), as well as

subdividers and leaders from NAREB (Leonard P. Reaume, Robert Jemison, Jr., William C.

Miller, Louis Frederick Eppich, Harry H. Culver) (Gries and Ford 1932).   The Neighborhood

Unit concept was the primary model for the volume on residential environments; the report

echoed Perry's moral argument and summarized his work on such matters as the size of the

neighborhood unit, neighborhood boundaries, the importance of original planning, and methods

of regulation and control. Yet the report also enveloped the Neighborhood Unit concept in the

---

[15] Banarjee and Baer (1984) criticize the Neighborhood Unit's empirical foundation – with much
justification – but there is no question that Perry and the consultants he engaged through the Russell Sage
Foundation conducted scientific research in the looser, less academic sense of "scientific" in use in their
day.

concerns of real estate developers. Gries and Ford introduce the term neighborhood unit via values peculiar to developers:

> "*Permanence and stability* are most essential in maintaining good homes and home neighborhoods. It is necessary, therefore, as a part of city planning ,to encourage in all ways the design and development of each neighborhood so that it shall be a self-contained unit in the pattern of the city. This has come to be known as the neighborhood unit." (Gries and Ford 1932, 7; italics mine).

The President's Conference on Home Building and Home Ownership helped to institutionalize Perry's Neighborhood Unit concept as accepted professional knowledge. It cemented acceptance of the Neighborhood Unit concept in the real estate development industry because it couched it in the profession's values and concerns. Indeed, Perry's Neighborhood Unit concept became the primary model voicing those concerns.

4.3 Federal Housing Administration use of the Neighborhood Unit concept

Just as important, the real estate development industry favored Perry's Neighborhood Unit concept because it was compatible with the industry's preferred means of government intervention during the Great Depression – a time when the Roosevelt administration was pursuing many other less desirable alternatives.

What began in 1925 as a land bust spread throughout the construction industry and the general

economy at the onset of the Great Depression. Residential construction dropped from a peak of

$4.5 billion to just $276 million by 1933 (Stein 1951); 244,394 homes were built in US urban

areas in 1929, but just 25,879 in 1933 (Housing Division of the Federal Emergency

Administration of Public Works 1936). By 1933 "fully half of all home mortgages in the United

States were technically in default" (Jackson 1985). Jackson also notes that unemployment in the

construction industry was substantially higher than in the overall economy, which itself had

grown to twenty five percent in 1933. The United States thus faced both an employment crisis

and a housing crisis.

Several of the initial government responses to the Great Depression generated intense opposition

from the real estate development industry. Subsequent to the President's Conference on Home

Building and Home Ownership, Congress created the Reconstruction Finance Corporation to

provide loans to limited dividend corporations building low-cost housing developments (Perry

1933). The Public Works Administration, initially established to provide jobs through the

construction of public buildings and infrastructure, extended its mission to slum clearance and

the development of low-cost rental housing (Housing Division of the Federal Emergency

Administration of Public Works 1936). Rexford Tugwell led development of the Greenbelt

Towns under the auspices of the Resettlement Administration.

Each program attempted to stimulate employment, and each served a public purpose by either

developing or stimulating development of decent quality low-cost housing. Yet they also

amounted to a threat to private industry. Both the PWA and the Resettlement Administration

were public institutions, federal government agencies empowered to act in the capacity of a housing developer. Though the Reconstruction Finance Corporation was empowered merely to provide building loans and not to develop housing itself, it was restricted to supporting limited dividend corporations. Limited dividend corporations, while private in a sense, were designed to be charitable institutions with willing limits on the amount of profit they could collect. Because each were potentially strong competitors to private enterprise, real estate developers lobbied heavily against them. They instead campaigned for the creation of the Federal Housing Administration, an organization designed to help private enterprise fulfill the public missions of creating employment and developing low-cost housing.

It is important to recognize at this point that concepts like Perry's Neighborhood Unit concept and Howard's Garden City contain political dimensions alongside their planning and design principles. Howard (1902) proposed that Garden Cities be developed through a private syndicate of developers planning in concert with each other, each giving up control over individual plots to the syndicate company. Descendants of the Garden City model were even more socialistic: Radburn was created as a limited dividend corporation and the Greenbelt Towns through a federal government agency. Mumford (1961) actually argued that the best way to develop Garden Cities was through municipal ownership of land. Particularly in the thirties – when municipal planning powers were still nascent and the country was in a depression – the political implications of planning ideas were critical. Perry himself became an advocate for significant public planning powers, including the ability to condemn large districts of so-called blighted areas for the purpose of developing Neighborhood Units from scratch (Perry 1929, 1933). But

research applying the Neighborhood Unit concept to greenfield areas was more pragmatic[16].

Advocates in the Federal Housing Administration encouraged the real estate development

industry to adopt the Neighborhood Unit concept not through legislative fiat but through the

sweetener of financial incentives and backing.

The National Housing Act of 1934 created the Federal Housing Administration. The Act was

developed to "encourage improvement in housing standards and conditions, to provide a system

of mutual mortgage insurance, and for other purposes" – one of which was to increase

employment. Title II of the act empowered the FHA to insure home mortgages. The program

provided an incentive to private financial institutions to start lending again, and it reformed the

mortgage industry by mandating self-amortizing mortgages with long repayment periods. The

FHA was able to influence housing standards and conditions in the private market through the

mortgage insurance process. The agency created its own staff of insurance appraisers and

developed standards for assessing the viability of residential developments. Developers hoping

to build houses that would qualify for FHA insurance had to submit plans to FHA field offices

for approval. The FHA also established a Land Planning Division to evaluate the plans and

provide advice – even going so far as to redesign deficient schemes for developers. Because

subdividers could get construction loans much more easily for projects that were FHA-approved,

they had a strong incentive to follow the FHA standards and advice.

Perry's Neighborhood Unit concept came into play because most of the FHA's standards were

based on the reports from the President's Conference on Home Building and Home Ownership,

---

[16] Thomas Adams, well-known as a pragmatist (Simpson 1985) carried out most of this work (Adams and
Bassett 1929, Whitten and Adams 1931, Adams 1934).

where knowledge on subdivision and neighborhood development standards was driven largely by Perry's Neighborhood Unit concept. The large subdividers who were involved in planning institutions were already well familiar with best practices in the industry and were supportive of and actively campaigned for FHA programs. Indeed, the FHA Land Planning Division worked closely with leading subdividers – the Alabama field office, for instance, was located in the Jameson Companies office building, home of the leading subdivider in the south (FHA 1937c).

4.4 Conclusion

The research for Perry's Neighborhood Unit concept was sponsored by a charitable institution for a civic planning effort. It was advanced in professional planning circles, validated through the President's Conference, and institutionalized through the Federal Housing Administration. (I will discuss the FHA literature's use of Perry's Neighborhood Unit concept in the next chapter.)

Early adopters in the real estate industry favored the Neighborhood Unit concept because it was an easy fit with existing practices and because it embodied specific changes that they desired in development and the regulation of development: frugal development of community amenities, including economizing on roads, comprehensive planning by district, protection through design and controls, public support. In the Neighborhood Unit concept, then, developers found what they were seeking from public planning in terms of *coordination, design and engineering, and control* (Weiss 1987).

It was particularly favored during the Great Depression because it was concordant with desired federal policies, particularly in the face of highly undesirable alternatives. Perry's Neighborhood Unit concept fulfilled the public purpose mission of government legislation without threatening real estate development practices themselves. Rather, the concept provided a tangible and public face for the leading subdivision practices.

This chapter touched on both the principles of the Neighborhood Unit concept and on developments that are much more broad. This is necessary, however, because the political and economic issues played important roles in shaping the planning and design concepts in Perry's Neighborhood Unit idea and in influencing its subsequent adoption across the urban development professions. In a very real sense Perry's Neighborhood Unit concept came to represent these larger issues – in the following chapters I will describe how the meaning of the Neighborhood Unit shifted in the professional literature, fusing with evolving FHA and suburban real estate developer practices. The impact of Perry's Neighborhood Unit concept was not just substantive, then, but also concerned the way that it inflected this shifting political-economic, professional-governmental dynamic.

Yet this political and organizational context was not without consequences for the Neighborhood Unit concept. In both the Federal Housing Administration literature and in the Urban Land Institute's Community Builders Handbook. Perry's Neighborhood Unit concept was applied pragmatically, eventually resulting in built outcomes quite unlike Perry's ideal.

CHAPTER 5: DIFFUSION OF THE NEIGHBORHOOD UNIT

The Neighborhood Unit concept's emergence as a leading idea involved a complex interplay between leaders in a variety of fields, each advancing their agenda through professional and governmental organizations. Though the Federal Housing Administration played the greatest role in institutionalizing the Neighborhood Unit concept, the FHA's actions were informed by and predicated on a diverse coalition of expert opinion that developed the Neighborhood Unit concept in full and validated its merit.

Chapter Five concerns the diffusion of the Neighborhood Unit concept, beginning with the Federal Housing Administration's use in the thirties and continuing until the Neighborhood Unit concept loses its preeminence in the sixties. Here the Neighborhood Unit concept evolves from being a theoretical concept advanced by a group of leading figures to standard professional knowledge employed by the majority of planners, architects, and real estate men involved in urban development. As the Neighborhood Unit concept moved from early adoption to mass diffusion, its meaning shifted. As we shall see, by the sixties it lost much of its substantive and moral imperative.

I examine diffusion of the Neighborhood Unit concept via discourse analysis of professional literature published by the Federal Housing Administration, the Urban Land Institute's Community Builders Council, a joint publication of the Urban Land Institute and the National Association of Home Builders, and the American Public Health Association. A series of articles published in the Journal of the American Institute of Planners and the American Institute of

Architects after World War II provide aditional insight. In the middle decades of the twentieth century, the Neighborhood Unit was influential primarily in advancing the changes in development practices advanced by Adams and institutionalized by the FHA: planning and development by district rather than by lot, provisioning of infrastructure concurrent with subdivision, inclusion of community functions in residential development, and a hierarchical street system with arterial roads at the unit's edge. Other aspects of the concept – Perry's advocacy of home owners associations, for instance – had less of an impact.

Some scholars have suggested that urban planning and urban design knowledge operate under paradigms (Blanco 1994, Hack and Canto 1990, Garde 2008). In Kuhn's (1962) sense paradigms are guiding concepts that frame the way a community of practitioners viewed phenomena and define both the questions left to be discovered and the methods by which practitioners would study those questions. Kuhn's work describes how a practice like science operates in cycles, with normal periods of inquiry framed by paradigms followed by revolutionary periods in which paradigms are questioned and sometimes replaced.

We should be careful not to misuse Kuhn, however. The Neighborhood Unit concept acted like a paradigm in the sense that it provided a guiding image framing a holistic set of problems and tools, methods, and practices to address those problems. But it also played a critical role in facilitating communication between different practice communities. Kuhn's theory of paradigms is not particularly helpful in accounting for the extensive modifications to the Neighborhood Unit concept, either as it is adopted in different communities of practices or as it evolves alongside the urban development practices that it informed. For these reasons I will argue that it

is more appropriate to view the Neighborhood Unit concept as a leading *meme* (Dawkins 1976), a unit of cultural transmission that frames meaning in a heterogenous and fluid practice environment.

5.1: Diffusion of the Neighborhood Unit concept in the Federal Housing Administration Literature

Perry's Neighborhood Unit concept was used by the Federal Housing Administration to bridge the agency's twin purposes – "to encourage improvement in housing standards and conditions" and "to provide a system of mutual mortgage insurance" – laid out in the preamble to the National Housing Act. To the administrators of the FHA, the two missions were inextricably linked, as mortgage insurance depended on an appraisal of a home's value, which was dependent on the standard and condition of the home (Federal Housing Administration 1937c). Here as elsewhere, home value, standards, and conditions were as dependent on the value, standards and conditions of the neighborhood as much as they were the home itself[17].

The FHA disseminated its insurance appraisal policies and planning advice in the following documents:

-   Circular No. 2 – Property Standards

-   Circular No. 4 – Procedures for Operative Builders

_____

[17] Jackson (1985) eloquently criticizes the FHA's redlining practices in the appraisal of existing neighborhoods. Acknowledging his important research, I will keep my analysis to the planning and design advice that the FHA gave to subdividers and operative builders involved in the construction of new residential developments. Race restrictions were not an explicit part of this aspect of the FHA's policies and practices.

- Circular No. 5 – Subdivision Standards

- Technical Bulletin No. 4 – Principles of Planning Small Homes

- Technical Bulletin No. 5 – Planning Neighborhoods for Small Homes

- Technical Bulletin No. 7 – Planning Profitable Neighborhoods.

The Circulars explained the policies, procedures, and standards that the FHA required from developments applying for mortgage or construction loan insurance, while the Technical Bulletins provided supplementary advice and recommendations. (The other circulars and bulletins in each series provided information on mortgage policies and other aspects of the FHA's work.)

1. School, playground; 2. Churches; 3. Business center

PROVIDE SCHOOL AND CHURCH SITES

If a subdivision is large enough to warrant the consideration of all community requirements, locations should be provided for schools and churches. These sites should be centrally located for the convenience of all property owners and citizens in the vicinity. Adequate space should be provided for the parking of automobiles, without interfering with residential property near the school and church.
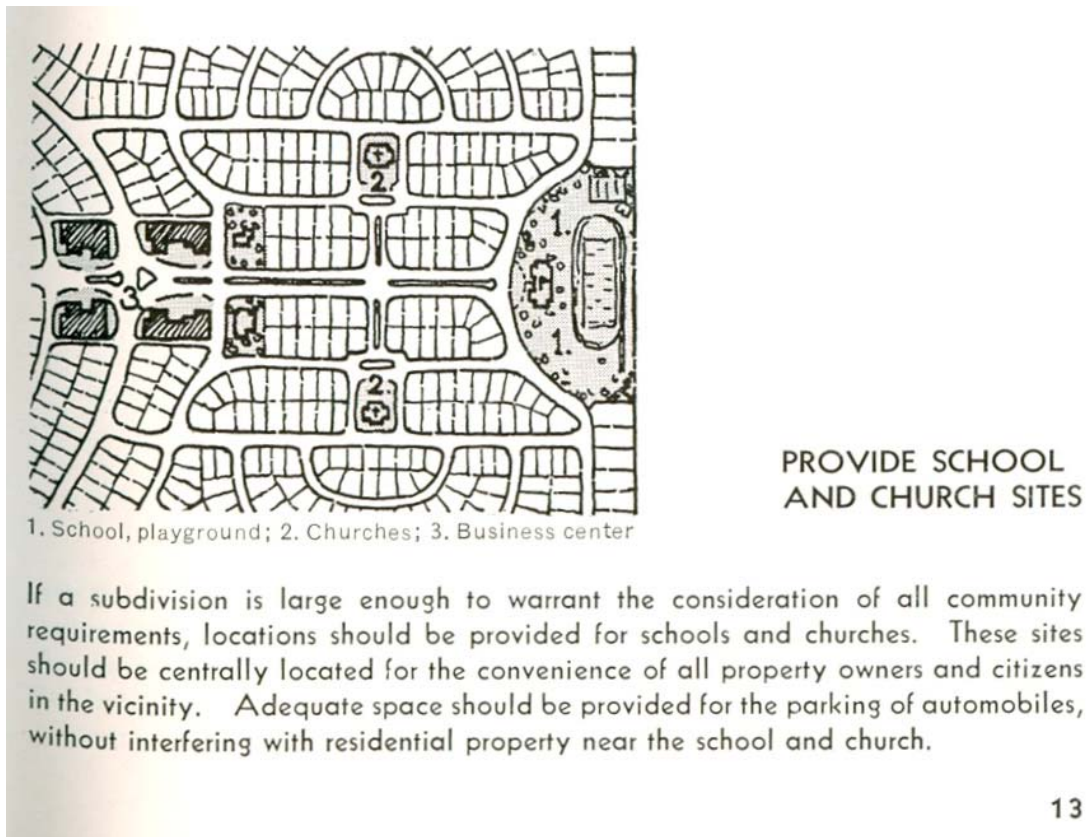
13

Figure 5.1: Piecemeal application of Neighborhood Unit principles (FHA 1938a).

As figures 5.1 and 5.2 illustrate, the FHA literature described the principles of the Neighborhood

Unit concept in a piecemeal fashion rather than as a whole. Figure 5.1 admonishes builders to

provide sites for schools and churches within the development, preferrably at the center. The

diagram also indicates space for a "business center" (i.e. a shopping center) along the principal

collector road at the entrance to the development. No mention is made of the Neighborhood Unit

concept itself, nor of any of the other principles within the Neighborhood Unit concept or the

connections between principles. Figure 5.2 is similar. It describes the prinicple of discouraging

heavy through traffic via a hierarchical street system, where major roads are at the edge of the

neighborhood and smaller roads designed and laid out for local traffic only are planned within it.

Note that the argument was Perry's (i.e. the sixth and final of the Neighborhood Unit Principles –

cf. figure 4.1), but the illustration is quite different, encompassing only part of a full

neighborhood and illustrating the internal street system as a network of curvilinear roads and

minor cul-de-sacs in a manner reminiscent of the AASHTO manuals. The illustration in figure

5.2 is indicitave of an evolution of street planning practices from Perry's Neighborhood Unit

monograph published nine years prior, informed by the work of Thomas Adams, Harland

Bartholomew, the ASCE, and the President's Conference on Home Building and Home

Ownership.

Protection

DISCOURAGE HEAVY
THROUGH TRAFFIC
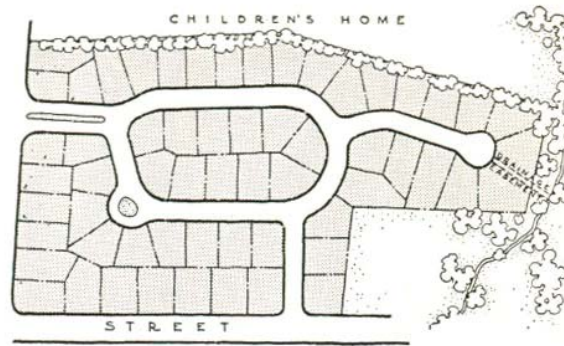
Minor streets should be so arranged as to make fast through travel impossible. Rapidly moving traffic on local residential streets results in an undue number of accidents and also unnecessarily increases the cost of pavement construction and maintenance. Where lots have unlimited and direct access to a heavy traffic street there is a constant threat that the protective covenants and zoning ordinance may be broken down by pressure to convert detached dwelling lots into income properties.

Figure 5.2: Piecemeal application of Neighborhood Unit principles (FHA 1938a).

The piecemeal application of Neighborhood Unit principles was partly a matter of pragmatism. Particularly in its initial years the Federal Housing Administration was more concerned with stimulating employment via rehabilitating the private construction industry than it was improving the standards of housing. Federal Housing Administration policies were therefore aimed at the homebuilder and general contractor as much as they were the large corporate subdivider or the municipal planner. Here what was important was less the othodox creation of neighborhood units than the development of good quality (and financially secure) housing irrespective of the size of the subdivision. Thus figure 5.2 illustrates the local streets principle of the Neighborhood Unit concept in a plat that is clearly too small to form a full neighborhood. Similarly, the text in figure 5.1 says "If a subdivision is large enough to warrant consideration of all community requirements…": i.e. a full Neighborhood Unit is desirable, but if you were only developing on a small parcel, a more modest development was okay.

Nevertheless, the FHA's initially modest imposition of Perry's Neighborhood Unit concept on

the homebuilding industry would strengthen by the end of the thirties once the agency

established a record of success. The contrast between initial and later editions of the circulars is

significant. The first version of *Subdivision Standards* published in 1935 mentioned the

Neighborhood Unit concept only in the seventh and final in a series of recommended (i.e. not

required) standards. It discusses advantages of neighborhood unit development, but only as a

provisional encouragement, couching them as "unusual types" of development:

> "(7) The design of the subdivision and the manner in which the development is
>
> advanced will be such that they lend themselves to the creation of a cohesive,
>
> stable, recognizable neighborhood.
>
> Unusual types of subdivision layout, town site, and neighborhood planning will
>
> be considered advantageous so long as they meet the other basic requirements. A
>
> real neighborhood evolves as a designed unit, fully equipped in its physical
>
> development, and organized in its community life for adequate services and many
>
> forms of recreation. Community organizations of property owners are a great
>
> advantage, particularly if the developer assumes a continuing responsibility for
>
> them." (FHA 1935b)

After a number of revisions, *Subdivision Standards* had by September, 1939 given Perry's

Neighborhood Unit concept a prime role. Here the Neighborhood Unit is discussed in the first

principle rather than last, and as a necessary rather than recommended or unusual standard:

"I.

Only those neighborhoods which have qualities making for continuity and stability of use over a period of years provide the security essential for long-term mortgage investment.

The subdivision must be more than an extension of streets and blocks of houses. It should be recognizable as a distinct unit within a community, with a definite pattern and definite protection which will permit it to exist as such. It should be so designed as to give to each householder the sense of belonging to a larger unit, to give him the feeling of neighborhood identity, and to cause him to take pride in the maintenance of the neighborhood as well as in his separate property." (FHA 1939a - italics in original)

The revisions of FHA circulars and bulletins reflect acceptance of FHA policies by the private development industry and the increasing ability of the Administration to impose recommendations on development projects. With a strengthened hand, the FHA's use of the Neighborhood Unit concept was more forceful, coherent, and complete.

Even so, the Federal Housing Administration was more concerned with using the principles of the Neighborhood Unit concept to improve the quality of residential developments than they were with the Neighborhood Unit concept itself. The extent to which the Federal Housing Administration pushed the real estate development industry to develop residential environments as neighborhood units is illustrated in figure 5.3. This pair of images taken from a later edition of *Planning Profitable Neighborhoods* compares an initial subdivision plan (submitted by a

developer to the FHA as part of an application of pre-approval for FHA mortgage insurance for prospective homebuyers) with a suggested revision prepared for the site by professional staff at the FHA's Land Planning Division. The latter is more reminiscent of the Neighborhood Unit concept than the former. It makes use of several of the Neighborhood Unit principles – the design of unit boundaries, provision of open space, inclusion of a shopping center along the arterial road, and planning of a localized street system – and is clearly planned as a single comprehensive unit. Yet it remains a subdivision and not a complete neighborhood in the sense that Perry articulated.
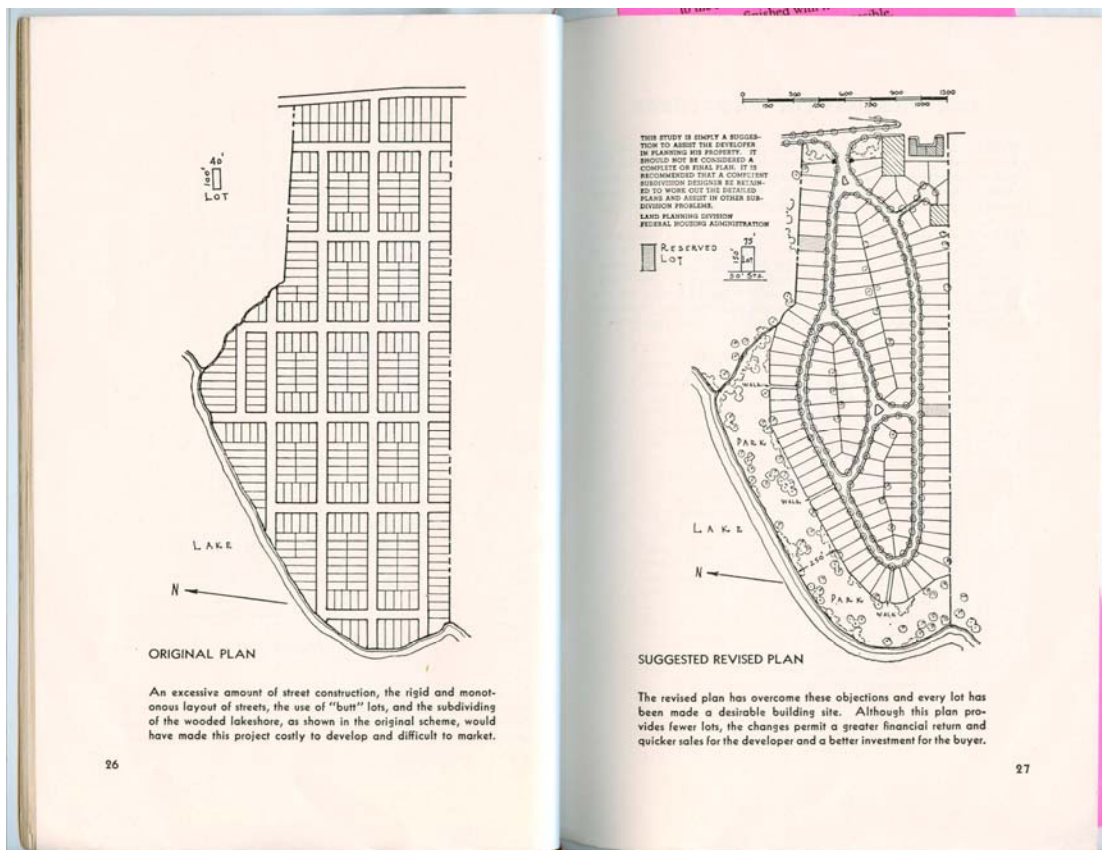

Figure 5.3: The Neighborhood Unit concept as a Subdivision Unit (FHA 1938a).

This is a critical distinction. In the thirties the Federal Housing Administration was not concerned with neighborhood units per se but rather with using Perry's Neighborhood Unit

concept to improve the quality of residential subdivisions. It was not the *neighborhood* that

mattered here but rather the principle of development via comprehensively planned *units*.

Perry's Neighborhood Unit concept was wildly effective in instigating this change (i.e. shifting

the scale of planning and development practices from the lot to the unit), but in the FHA

literature (and the National Association of Home Builders literature that followed it) the change

was not predicated on the development of real neighborhoods. In this sense, Perry's

Neighborhood Unit concept came to be the theoretical model for developing *subdivision units*

rather than *neighborhood units*.

5.2: Diffusion of the Neighborhood Unit concept immediately after World War II

Interest in Perry's Neighborhood Unit concept was renewed after World War II, when the

country turned its attention to meeting twenty years of pent up development demand at home.

This was reflected in a flurry of books and articles published in the period between 1945 and

1950. The Russell Sage Foundation published a retrospective bibliography of the Neighborhood

Unit concept broadly conceived, extending from Chicago School sociological texts to modernist

design works (Dahir 1947). Under the direction of Frederick J. Adams, the American Public

Health Association published the first edition of *Planning the Neighborhood* in 1947; it quickly

became the standard text for professional planners working in local government (Solow and

Copperman 1948, Solow, Ham, and Donnelly 1969, Banarjee and Baer 1984). A series of

articles in the Journal of the American Institute of Planners, the Journal of the American Institute

of Architects, and Land Economics both publicized such efforts and advanced critiques (Holden

1948, Isaacs 1948, Stillman 1948, Tannenbaum 1948, Adams et.al. 1949, Blumenfield 1949, Goodman 1949, Isaacs 1949a, Isaacs 1949b, Gaertner 1950). The spike in interest set the stage for subsequent academic research that examined specific claims of the Neighborhood Unit concept (Dewey 1950, Brussat and Reimer 1951).

Planning the Neighborhood had the greatest impact in urban planning. It extended the APHA's earlier work on housing (APHA 1938, 1939) to cover public health issues beyond the individual residential property. The book included material on site selection (soil, topography, drainage and flooding), infrastructure (sanitary and stormwater sewers, waste removal, police and fire services), protection from hazards and nuisances (noise, odor, pollution and also moral hazards like vice businesses), and access to community facilities, some of which (elementary schools, shops) were located in the neighborhood and others (high schools, employment) that were expected to be further out in the city or region.

Planning the Neighborhood's focus was on the dissemination of standards for this broad range of issues. It used the neighborhood to organize this activity, viewing neighborhoods as "the minimum planning unit" (Solow and Copperman 1948, 1) for the majority of public health concerns. The neighborhood was thus a means to grapple with a variety of public health issues rather than an end in itself. Still, Perry's work formed the basis to conceptualize the size and scope of this minimum unit. Echoing Perry, Solow and Copperman wrote that "…it is assumed that for planning purposes the extent of the neighborhood will be determined by the service area of an elementary school". They also quoted Perry's later definition of a neighborhood unit – "that area which embraces all the public facilities and conditions required by the average family

for its comfort and proper development within the vacinity of the dwelling" – from *Housing for the Machine Age* (1939).

This work was paralleled by advancements in real estate development. Two new organizations emerged in the real estate development industry towards the end of the Great Depression and the onset of the Second World War. First, the Urban Land Institute was formed between 1936 and 1939 as an independent organization to "conduct research and education on the problems of land development". ULI largely came out of the land planning committees of NAREB and was dominated by the large subdividers. It worked closely with the federal government and with private industry to fulfill its mission, including hiring as its first executive director Seward Mott who had previously headed the professional staff of the FHA's Land Planning Division. The second organization was the National Association of Home Builders, founded in 1941 as the main lobbying organization for the home building industry. The emergence of ULI and NAHB reflected the politically contentious time of the late thirties, when the real estate industry needed to both lobby the federal government for its own interests and justify the public value of its industry. The creation of a separate, independent institution in the ULI helped in the latter regard, even as its board was made up of leaders in the NAREB and NAHB.

ULI's *Community Builders Handbook* (1947), a manual for suburban real estate development, was based upon Perry's Neighborhood Unit concept. Figure 6.4 shows the *Handbook*'s use of the concept. It quotes Perry's six Neighborhood Unit principles verbatim while including an original diagram. The ULI version of the Neighborhood Unit diagram is roughly in keeping with Perry's in terms of its size, boundaries, and location of the elementary school, but it has a

number of differences. The blocks within the neighborhood are longer than Perry's diagram and

the street system more curvilinear and less fussy. There is greater ambiguity in the boundaries of

the neighborhood, with two sides delineated simply with dashed lines and not arterial roads.

There is greater ambiguity in the size of the neighborhood as well, for the ULI diagram shows no
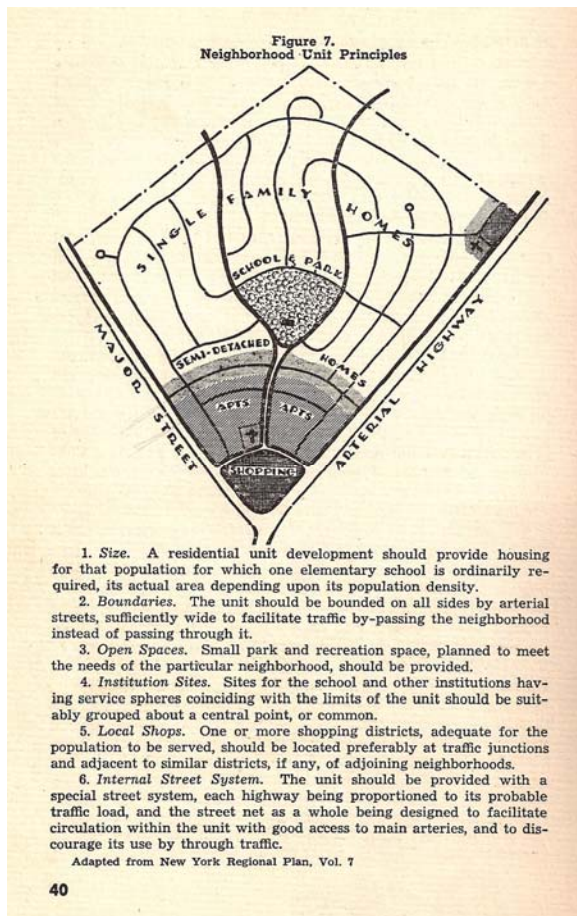
scale.

Figure 7.
Neighborhood Unit Principles
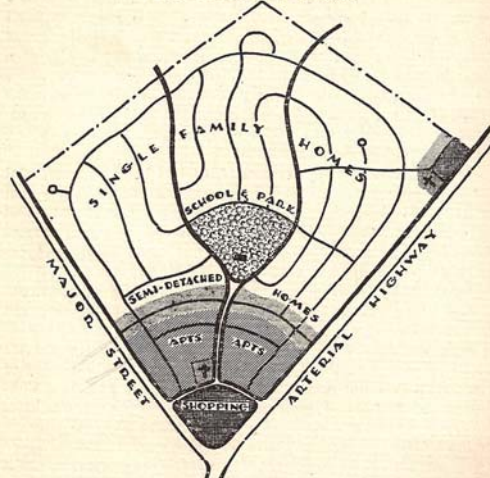
1. *Size.* A residential unit development should provide housing for that population for which one elementary school is ordinarily required, its actual area depending upon its population density.
2. *Boundaries.* The unit should be bounded on all sides by arterial streets, sufficiently wide to facilitate traffic by-passing the neighborhood instead of passing through it.
3. *Open Spaces.* Small park and recreation space, planned to meet the needs of the particular neighborhood, should be provided.
4. *Institution Sites.* Sites for the school and other institutions having service spheres coinciding with the limits of the unit should be suitably grouped about a central point, or common.
5. *Local Shops.* One or more shopping districts, adequate for the population to be served, should be located preferably at traffic junctions and adjacent to similar districts, if any, of adjoining neighborhoods.
6. *Internal Street System.* The unit should be provided with a special street system, each highway being proportioned to its probable traffic load, and the street net as a whole being designed to facilitate circulation within the unit with good access to main arteries, and to discourage its use by through traffic.

Adapted from New York Regional Plan, Vol. 7

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Figure 5.4: Neighborhood Unit principles in the Urban Land Institute's Community Builders Handbook (ULI 1947).

The NAHB literature is informative as well, as much for how it does not use Perry's

Neighborhood Unit concept as for how it does. *Home Builders Manual for Land Development*

(ULI 1950b) was a book developed by ULI under the sponsorship of NAHB's Land Planning

Committee. It synthesized a number of "Land Planning Service Bulletins" written by ULI staff

and published in various issues of NAHB's trade magazine. The *Home Builders Manual* was

aimed at NAHB's core audience of small time builders, most of whom operated in the 1940s on

a scale far smaller than that of a full neighborhood. Elsewhere the FHA and the ULI encouraged

such builders to group together in a cooperative syndicate to plan and develop neighborhood

units if they could not do so individually (FHA 1938a, 1940a, ULI 1947). The *Home Builders*

Manual, by contrast, did not mention the Neighborhood Unit concept at all.

It did, however, include the ULI's version of the Neighborhood Unit diagram, in a chapter called

"Making the Most of Church and School Locations in Subdivision Planning". The chapter

provides insight into the changing thinking in subdivision design. It recognizes schools and

churches for increasing the desirability of neighboring homes and suggests that home builders

provide sites for their eventual development in their subdivision plans. But where Perry placed

school and churches in the center surrounding a green and knitted into the residential blocks, the

Home Builders Manual noted the auto traffic and outside users that each attracted and suggested

strategies to protect single family homes from their blighting influence. The diagram in Figure

6.4 shows the elementary school on a large block integrated with the community park rather than

the residential blocks. Churches here are placed not in the center but at the edge of the

neighborhood, along the arterial roads. This was very similar to the strategy Perry used in

placing shopping centers. But it highlights a tension between including a mix of uses in a

neighborhood and protecting the neighborhood from them. Note also that the ULI neighborhood

unit diagram indicates a clearer separation of uses as well as a land use gradient, with semi-

detached homes and apartments each buffering the less intensive and more residential uses from

the more intensive and more commercial ones. The desire for protection from so-called

blighting influences would continually push against the norm of a comprehensively planned

neighborhood unit.

5.3: The Urban Land Institute's Community Builders Handbook

The Urban Land Institute was the primary advocate for advancing Perry's Neighborhood Unit

concept in the real estate development industry after World War II. As such, it is worth taking a

closer look at their makeup and work. Leadership during the founding of the Urban Land

Institute coalesced in two groups of real estate developers who tended to different kinds of

practices. These cliques formalized into the Community Builders Council (CBC), led by

developers like J.C. Nichols and Hugh Potter, and the Central Business District Council

(CBDC), led by ULI founder Walter Schmidt. An Industrial Council (IC) was instituted in 1951.

In a sense the councils divided the real estate field into three realms, with each council

spearheading research and education in one of the three broad categories of urban land use: the

CBC concerned with residential, the CBDC with commercial, and the IC with industrial land

uses. Yet they were established at the end of World War II in anticipation of domestic

challenges. Their missions were really oriented towards specific problems in the homefront –

the CBC with supplying twenty years of pent-up development demand on the metropolitan

fringe, the CBDC with rebuilding of blighted cities and the stabilization of downtown real estate

values, and the IC with national scale resource and industrial planning.

The nature of their problems demanded differing approaches. In the initial years of the ULI the

main publication coming out of the CBC was the Community Builders Handbook. The

Handbook was a straightforward technical manual presenting basic typologies for development.

It took a kind of cookbook approach that its authors thought appropriate given its intended

greenfield context and the pressing need for development (Eskew 1959). The CBDC

spearheaded ULI's efforts to develop "Panel Studies", reports of what were essentially charettes

in which a group of development experts would assemble in a particular city either to evaluate a

proposed scheme or to suggest solutions of their own (Urban Land Institute 1952). Work of the

IC introduced a new level of research to ULI's Technical Bulletins, reports that were published

periodically on specific topics, beginning in 1945.

	Community Builders Council	Central Business District Council	Industrial council
Land Use	Residential	Commercial	Industrial
Type of practice	Suburban/greenfield development	Downtown business district development and urban renewal	National resource and industrial planning
Communicative form of literature	Objective technical manuals; Community Builders Handbook	Context sensitive case studies: Panel Studies	Technical research: Technical Bulletins
Figure 5.5: The Urban Land Instiute councils and their functions			

Neither the councils nor the publications were exclusive – many community builers participated

in ULI panel studies, and early Technical Bulletins covered best practices reports from both CBC

and CBDC members. But the Community Builders Handbook was unique in providing a

comprehensive technical manual offering directions for each stage of work necessary for

community development. The Community Bulders Handbook was the authoritative volume on

its subject, and essentially purported to be complete in the knowledge that it covered. (This

cookbook approach is arguably one factor that eventually undermined the Handbook and its use of the Neighborhood Unit concept.)

Five major editions of the Community Builders Handbook were published. The first was in 1947, the last in 1968. Subsequent to the Handbook, ULI published volumes on specific development typologies under the 'Community Builders Handbook Series' series.

At least in the initial editions of the Community Builders Handbook, "community" was virtually synonymous with Perry's Neighborhood Unit concept. This is reflected not just in the section on site planning, where principles of the Neighborhood Unit concept were discussed in detail, but also in the book's overall content, which included three chapters on the stages of residential development (market analysis and preliminary planning, site planning, and covenants and home owners associations) and one on shopping centers. The Handbook provided its audience with a conceptual tool in the Neighborhood Unit concept for understanding the post-World War II practice of quality suburban residential subdivision development, and it gave specific instructions for developing the kinds of land uses that were entailed in Perry's concept – i.e. residential and neighborhood commercial, as well as allocations for community institutions.
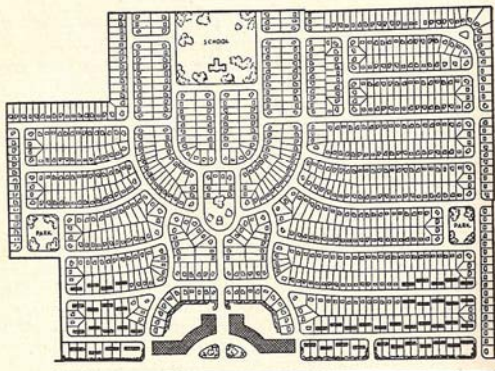
Because its intended audience had the means and at least a modicum of interest in the community-wide aspects of residential subdivision development, the *Community Builders Handbook* was able to advance the norms of Perry's Neighborhood Unit concept in a more forceful, articulate (though still practical and well-tested – it professed little interest in the radical takes on neighborhood units being designed by modernist and international architects (Dahir

1947, Ostrowski 1970)) manner than possible under municipal zoning, planning and subdivision regulations or even through FHA policies and practices.

Figures 5.6 (Midwest City, Oklahoma) and 5.7 (Neighborhood Unit Principles), from the first edition of the Community Builders Handbook (ULI 1947)

The *Community Builders Handbook* illustrated the Neighborhood Unit principles with an exemplary case development built by one of the members of the Community Builders Council. In the first edition this was Midwest City, Oklahoma, on the outskirts of Oklahoma City. Constructed in 1942, Midwest City was built by W. P. Atkinson to house war industry workers at a plant adjacent to the site. It is pretty representative of Neighborhood Unit principles as applied to relatively modest housing. It has enough housing to support an elementary school, local

shopping along the arterial road, and school and parks in the center. Where it diverges, it is the result of local site conditions. Because of its location within the Jeffersonian grid, with arterial roads spaced one-mile apart, the development was bounded by an arterial on only one side. Atkinson sited the shopping center on this side of the development, buffeting it with duplex housing. He then planned lines of housing along the remaining edges, creating effective boundaries and imposing an internal orientation to the street system. Midwest City was built with the assistance of the FHA at the behest of military planners in the Roosevelt administration who needed the construction industry to build war housing. It represented the best efforts of the real estate development industry to develop good neighborhoods, at least at a cost that could be supported by a lower-middle-income housing market.

5.4: Evolution of the Neighborhood Unit concept in the Community Builders Handbook

Professional knowledge in the real estate development industry grew significantly in the decades after World War II. Where the initial edition of the *Community Builders Handbook* was 204 pages, the 1968 edition grew to an unwieldy 526. Each edition of the *Handbook* incorporated new knowledge drawn from the practices of members of ULI's Community Builders Council, generated by ULI's professional staff, or culled from the *Technical Bulletin* research reports. Like Perry's original monograph, the initial edition of the *Community Builders Handbook* was a synthesis of ideas packaged and presented for general use in any context. Successive *Technical Bulletins* advanced knowledge of more particular typologies – the patio house (Wittausch 1963), mobile home parks (Newcomb 1971), and waterfront development (Rick 1964) for instance.

Successive editions of the *Handbook* struggled to incorporate more specificity, sophistication, and contextual nuance while maintaining the coherency of Perry's Neighborhood Unit concept and the clarity of the *Handbook*'s cookbook rhetorical style. In amalgamating such knowledge the *Community Builders Handbook* moved beyond Perry's Neighborhood Unit concept both in sophistication and, critically, in scope.

Nevertheless, for more than twenty years the Neighborhood Unit concept remained the guiding image of the *Community Builders Handbook*. While the practices, concerns, controversies, and "talk" (Mandelbaum 1996) of the real estate development industry evolved, Perry's Neighborhood Unit concept maintained a surprising resiliency.

Change was most apparent in the exemplary case projects included in successive editions of the *Community Builders Handbook*. Where the first *Handbook* placed a plan of Midwest City, Oklahoma alongside a Neighborhood Unit diagram to illustrate how Perry's six principles are developed in practice, each new addition substituted a newer development more reflective of current practices. Figures 5.8 – 5.10 thus speak to the changes in Community Builder practices between 1947 and 1968.

The second model development after Midwest City was Town and Country Estates, built on the east side of Wichita and included in the 1954 edition of the Handbook (ULI 1954). At a quarter mile square, Town and Country Estates was similar in size to Midwest City and Perry's model diagram. Because the school located at the western edge actually services a larger area, though, this is a bit misleading. The houses are larger, on larger lots, and if the plan had showed a full

neighborhood unit it would have covered a larger area at lower densities. The appearance of residential driveways and expansive parking in the shopping center indicates a more explicit consideration of the automobile. Town and Country's shopping center, designed by Victor Gruen (McKeever 1953) is integrated within the neighborhood in the important sense that the streets are oriented towards it, but the size of the mall and its wide parking lot make it more detached from the neighborhood than the modest shopping district in the Midwest City development.
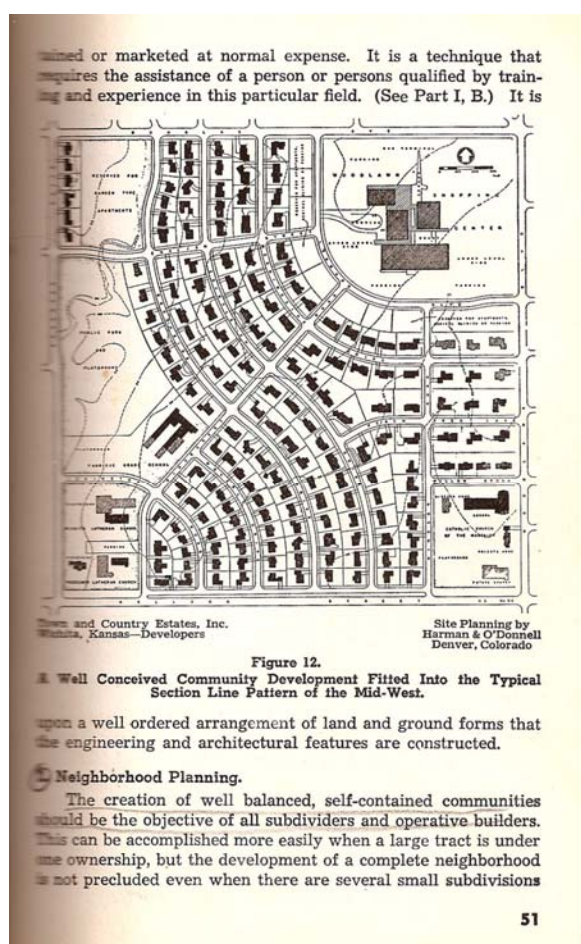
Figure 5.8. Town and Country Estates (ULI 1954)

The Belmont development of Pueblo, CO cited in the 1960 edition of the *Handbook* shows more substantial changes (ULI 1960). The streets, parks, and school sites are simplified – made less

fussy – with open space concentrated at the school rather than throughout the neighborhood.
More importantly, several neighborhood units are grouped together in a single development.
The development also includes a junior high and high school and regional rather than
neighborhood shopping. Thirteen years of experience in developing shopping centers confirmed
that the size of development needed to support an elementary school – roughly five thousand
people – was not enough to support everyday neighborhood shopping. Though it differed from
Perry's Neighborhood Unit concept in terms of its scale and trade area, the shopping center in
Belmont is not unlike Nichol's Country Club Plaza (though of course more auto-oriented).

Figure 5.9. Belmont, CO (ULI 1960)

Further changes are illustrated in Northglenn, the exemplary development included in the final
edition of the *Handbook* (ULI 1968). The plan for Northglenn covers an even larger area than
that of Belmont, at a still lower residential density. The street network is more dendritic (though

it makes less use of cul-de-sacs than, e.g. some of the FHA or NAHB literature). Elementary
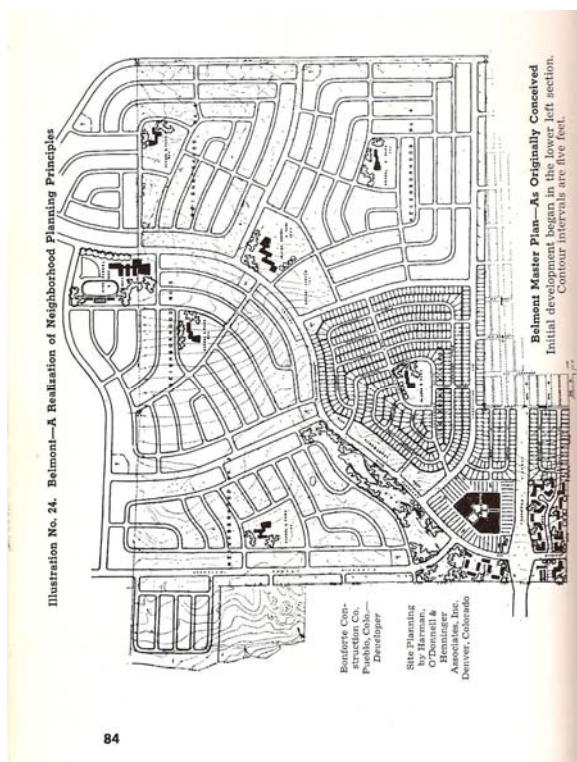
schools are not always integrated at the center of neighborhood units. Additional land uses –

office, medical, industrial, golf course, civic center, and regional shopping – are sited adjacent ot

the highway interchange. With Northglenn suburban development moved far from the

Neighborhood Unit concept, but at the same time it does not seem to be guided by any other

coherent plan or idea.
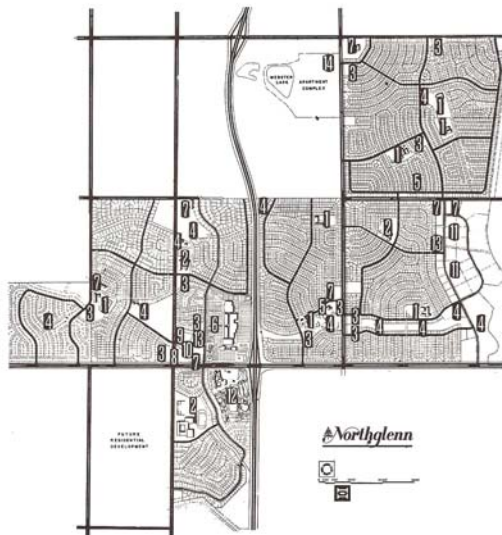
1–23 Northglenn—Master Development Plan
While neighborhood criteria were applied to the initial development concept, planning
requirements for major roads under the local grid pattern of platting, preempted the
possibility of meeting neighborhood planning principles fully.

Legend
1. Elementary Schools
2. Junior and Senior High Schools
3. Churches
4. Recreation Parks
5. Swimming Pools
6. Shopping City
7. Convenience Shopping
8. Medical Centers
9. Office Building
10. Civic Facilities
11. Industrial Park
12. Par-3 Golf Course
13. Fire Station
14. Hospital

Perl-Mack Homes, Inc., Denver, Developers
Harman, O'Donnell and Henninger, Associates, Inc., Planning Consultants

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Figure 5.10. Northglenn, CO. (ULI 1968)

Though Northglenn was a substantial departure, the *Community Builders Handbook* continued to

advance Perry's Neighborhood Unit concept as its guiding image. The first revision of ULI's

neighborhood unit diagram was not until the final edition of the *Handbook*, and the changes

(while significant) were much less radical than Northglenn. In a minor acknowledgement of

contextual nuance, the 1968 edition provides four neighborhood unit diagrams instead of one,

suggesting that the planning of neighborhoods might be informed by arterial roads, design ideas,

natural features, or infrastructure barriers. The diagrams expand in size to cover a full square

mile of a hypothetical Jeffersonian grid. Each diagram here covers multiple neighborhood units,

akin to the Belmont development cited in the 1960 *Handbook*. Note also that the first of the

diagrams shows the same higher density land uses arranged in a similar manner as in the earlier

neighborhood unit diagram, only this time at the broader full-square mile rather than the 160 acre

scale. There is a tension here, for while Perry's Neighborhood Unit concept persists,

development practices push it to expand from 160 acres to 640 acres while on the other hand

higher intensity land uses grow and begin to detach, pushing to become units in their own right.
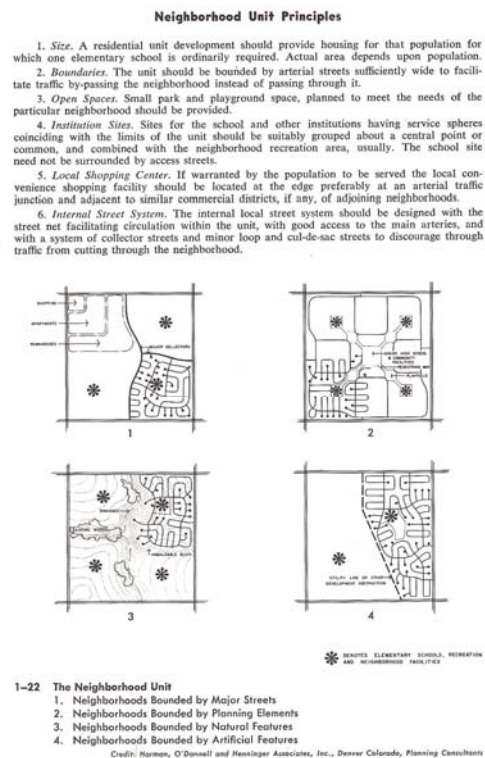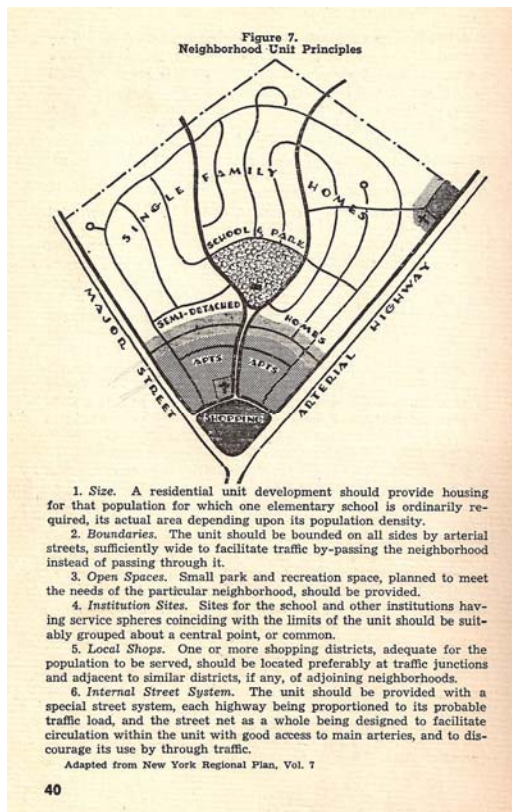
Figures 5.11, 5.12: A comparison of neighborhood unit diagrams from the first (ULI 1947) and final (ULI 1968) editions of the Community Builders Handbook.

The quoted text of Neighborhood Unit Principles was still more resilient. From the first edition, the *Community Builders Handbook* quoted the six Neighborhood Unit principles from Perry's monograph almost verbatim[18]. Each successive edition maintained the six principles with only slight modifications. At no time did the *Handbook* add or remove principles or otherwise change Perry's overall framework.

Because the text here changed rarely if at all, we might conclude that what revisions did occur were intentional and therefore could offer clues concerning the evolution of development practices. Figure 5.13 compares each of the six Neighborhood Unit principles as written in Perry's 1929 monograph and the first (1947) and last (1968) edition of the *Community Builders Handbook*. Four changes are worth mentioning. First, the *Handbook* removed Perry's "A *system of small parks..*" in the open space principle. Second, the 1968 edition of the *Handbook* makes two modifications to the institution sites principle, suggesting that the school should be "…combined with the neighborhood recreation area, usually [sic]" and that "the school site need not be surrounded by access streets". Commmunity builder practices had by the fifties concentrated open space at the elementary school. This had the dual function of creating more useable spaces for active recreation while, importantly, simplifying the maintenance procedures and ownership structure of open space. By folding park space into the administration of the school plant it obviated the need for a separate park maintenance organization.

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[18] Curiously, the middle editions of the *Handbook* attribute the Neighborhood Unit principles to Adams (1934) rather than Perry. The final edition gives no specific attribution to the Neighborhood Unit Principles, crediting instead Harmon, O'Donnell and Henninger Associates for the (revised) neighborhood unit diagrams (cf. fig. 6.12). Harmon O'Donnell and Henninger Associates consulted on the Community Builders Handbook in the fifties and sixties, and worked on each of the exemplary developments in the *Handbook* save Midwest City, OK.

Third, the principle on local shops changes in the final edition from "One or more shopping districts…" to "If warranted by the population served, local convenience shopping…". Here the combination of lower density housing and larger stores meant that shopping centers were no longer necessary in every neighborhood. Note also that the 1968 text says "local *convenience* shopping" – this was a new category of retail. When stores for everyday needs were taken out of the neighborhood and located elsewhere it created an opportunity for a new kind of store for when you merely had to get gas or pick something up on the way home.

Finally, the local street system principle changed, in both the initial and final editions of the *Handbook*. The 1947 version adds that the local street net should have "good access to main arteries". The 1968 version suggests that the street net should include "a system of local collector streets and minor loops and cul-de-sac streets". Here Perry was at the forefront of highway design practices that would evolve a great deal over time. In the RPA monograph Perry credits the new wave of auto-oriented highway planning for perversely inspiring the Neighborhood Unit concept (the highways of the teens and twenties ripped apart the traditional city fabric, naturally creating cellular neighborhoods in the process). Perry called for a special street system designed for local traffic, but while he had Forrest Hills Gardens for inspiration neither he nor civil engineers conducted the research that would eventually lead to the AASHTO-style street hierarchy of arterial, collector and local roads.

Neighborhood Unit Principles		
1. Site	Perry	A residential unit development should provide housing for that population for which one elementary school is ordinarily required, its actual area depending upon population density.
	ULI 1947	A residential unit development should provide housing for that population for which one elementary school is ordinarily required, its actual area depending upon its population density.
	ULI 1968	A residential unit development should provide housing for that population for which one elementary school is ordinarily required. Actual area depends upon population.
2. Boundaries	Perry	The unit should be bounded on all sides by arterial streets, sufficiently wide to facilitate its by-passing by all through traffic.
	ULI 1947	The unit should be bounded on all sides by arterial streets, sufficiently wide to facilitate traffic by-passing the neighborhood instead of passing through it.
	ULI 1968	The unit should be bounded by arterial streets sufficiently wide to facilitate traffic by-passing the neighborhood instead of passing through it.
3. Open Spaces	Perry	A system of small parks and recreation spaces, planned to meet the needs of the particular neighborhood, should be provided.
	ULI 1947	Small park and recreation space, planned to meet the needs of the particular neighborhood, should be provided.
	ULI 1968	Small park and playground space, planned to meet the needs of the particular neighborhood should be provided.
4. Institution Sites	Perry	Sites for the school and other insitutions having service spheres coinciding with the limits of the unit should be suitably grouped about a central point, or common.
	ULI 1947	Sites for the school and other insitutions having service spheres coinciding with the limits of the unit should be suitably grouped about a central point, or common.
	ULI 1968	Sites for the school and other insitutions having service spheres coinciding with the limits of the unit should be suitably grouped about a central point or common, and combined with the neighborhood recreation area, usually. The school site need not be surrounded by access streets.
5. Local Shops	Perry	One or more shopping districts, adequate for the population to be served, should be laid out in the circumference of the unit, preferably at traffic junctions and adjacent to similar districts of adjoining neighborhoods.
	ULI 1947	One or more shopping districts, adequate for the population to be served, should be located preferably at traffic junctions and adjacent to similar districts, if any, of adjoining neighborhoods.
	ULI 1968	If warranted by the population to be served the local convencience shopping facility should be located at the edge preferably at an arterial traffic junction and adjacent to similar commercial districts, if any, of adjoining neighborhoods.
6. Internal Street System	Perry	The unit should be for that purpose provided with a special street system, each highway being proportioned to its probable traffic load, and the street net as a whole eing designed to facilitate circulation within the unit and to discourage its use by through traffic.
	ULI 1947	The unit should be provided with a special street system, each highway being proportioned to its probable traffic load, and the street net as a whole being designed to facilitate circulation within the unit with good access to main arteries, and to discourage its use by through traffic.
	ULI 1968	The internal local street system should be designed with the street net facilitating circulation within the unit, with good access to the main arteries, and with a system of collector streets and minor loop and cul-de-sac streets to discourage through traffic from cutting through the neighborhood.
Figure 5.13. Consistency and change in the six principles of Perry's Neighborhood Unit concept.		

Each of these precise changes reflected conscious decisions on the part of the *Community*

Builders Handbook authors and editors to bring Perry's Neighborhood Unit concept closer to the

logic of contemporary suburban development practices. They were subtle alterations made

without seeking to challenge the appropriateness of the Neighborhood Unit concept itself. In this

manner they both validated and deformed Perry's original concept.

5.5: Analysis and Conclusion

Perry's Neighborhood Unit concept had a tremendous impact in the forty years following the

publication of the RPA monograph. It was adopted in whole or part by eighteen professional and

governmental organizations. A survey undertaken in the sixties found that eighty percent of

professional planners were familiar with the concept and used it in their work (Solow et.al.

1969). Much of suburban development was planned as neighborhoods centered on schools and

park space as a result. Though not quite in the way that he envisioned, Perry's Neighborhood

Unit concept helped to instill a hierarchical street system with through roads fencing

neighborhoods and local streets within them. The Neighborhood Unit concept also provided the

theoretical argument for subdivision regulations and mortgage insurance standards that pushed

the scale of development from the lot to the district, a shift that brought comprehensive planning

and coordination of subdivision with the provisioning of infrastructure. The impact was real: in

1945 ULI found that 55% of developers were installing water mains, 60% sanitary sewers, 75%

storm sewers, and 90% street paving in the process of subdivision (Mott 1945), a dramatic change from the laissez-faire subdivision practices of twenty years before. Subsquent surveys (Mott and Wehrly 1950, McKeever 1955) showed further improvement.

Nevertheless, the diffusion of the Neighborhood Unit concept was not whole or consistent. It was applied towards subdivisions, not necessarily neighborhood development. Subsequent events – the full impact of the automobile for instance – would pressure neighborhood planning in ways that Perry did not foresee. While the concept represented the best intentions of urban development, it was adapted to suit particular needs, and at any rate was never universally embraced. In this manner the diffusion of the Neighborhood Unit concept validated but also deformed Perry's original idea. Despite the ubiquitous adoption of Perry's Neighborhood Unit concept, developments like Belmont and Northglenn – both of which were presented as exemplary cases in the leading professional text – were only partially successful in fulfilling Perry's ideal. Though the Neighborhood Unit concept's impact was great, it was incomplete and inconsistent.

The Neighborhood Unit concept was paradigmatic in that it provided the guiding image for a set of practices. This impact extended beyond the overt substantive content of the Neighborhood Unit concept itself – including for instance the FHA mortgage insurance policies that made use of the Neighborhood Unit concept. Indeed, one of the more insightful aspects of Kuhn's work is that paradigms – later he used the term exemplars (Blanco 1994) – encompass a holistic set of theories, practices, problems, and tools. This way of thinking helps us to begin to understand the impact of Perry's Neighborhood Unit concept, which was successful in the sense that it was

highly influential but a failure in that its influence did not lead to the development of neighborhood units, at least not in the way that he envisioned.

If we view the Neighborhood Unit as a practice technique rather than substantive model, we can understand its impact in places like the FHA literature where it moved subdividers to think of developing *in the mode* of a neighborhood unit. Regardless of the size of a residential development, for example, a FHA insurance appraiser might assess whether its design exhibited Neighborhood Unit principles. They might ask whether a project had an internal street network, whether its edges were delineated with arterial roads or other natural boundaries, or whether parks, playgrounds, or other community uses were sited within the development. The literature discussed this chapter shows evidence of being guided by the Neighborhood Unit "paradigm" even where there is little evidence of comprehensive Neighborhood Unit developments.

This more holistic view of knowledge is complicated, intangible, and somewhat problematic. If we understand paradigms as exemplars that model practices, problems, and tools as well as theories, variation becomes an issue not just with substantive information but with practices and outlooks as well. While Perry's Neighborhood Unit concept was the leading exemplar for the coordinated shift in development and regulatory practices that began in the mid twenties and was institutionalized by the time the economy had shifted back to domestic production after the Second World War, the organization and regulation of urban development would continue to evolve. Moreover Perry's widely adopted innovation that development ought to occur in comprehensively planned units was not restricted to the development of residential neighborhood

environments. Variations in the fifties would apply this innovation to the development of shopping centers, office complexes, industrial parks, and complete towns.

I prefer to view the Neighborhood Unit concept as a leading *meme* (Dawkins 1976). A meme refers to a unit of cultural transmission. It calls attention to the communicative power of the Neighborhood Unit concept to capture a great deal of information (i.e. about developing urban environments as comprehensively planned units) and to share information across professional communities. As a play on biological genes, the term meme also calls attention to evolutionary processes: as much as the Neighborhood Unit concept captured information, the meaning of the Neighborhood Unit changed as it was replicated from one text to the next and as the circumstances underlying the need for the Neighborhood Unit evolved. The Neighborhood Unit meme evolved not simply as an elaboration of a single paradigm but in a more thorough and fundamental way. It framed meaning in a paradigmatic fashion, but operated in a more complex, multiform, and fluid environment.

CHAPTER 6: EMERGENCE OF RIVALS

Despite its persistance in the *Community Builders Handbook*, by the sixties enthusiasm for

Perry's Neighborhood Unit concept had waned. After the 1968 edition the Urban Land Institute

reformulated the *Handbook* into a series of volumes of individual land use typologies. The

Residential Development Handbook (ULI 1978) that followed included the Neighborhood Unit,

but only as one of a larger set of ideas about the development of residential environments

(including new towns and Planned Unit Developments, which I discuss below). The publishing

shift reflects a shift in ULI's thinking towards Perry's Neighborhood Unit concept, for it no

longer held weight as the guiding image for the entire "community building" project.

This chapter examines the waning influence of Perry's Neighborhood Unit concept through a

discussion of its emerging rivals. The Neighborhood Unit concept lost relevance because

elements of the concept grew in size and importance to the point where they pressured the

cohesiveness of the whole, because the practices of the community builders who were its leading

adopters outgrew the concept, and because it came to represent a set of practices that became

outmoded. Despite their similarities, the *Planned Unit Development (PUD)* superceded Perry's

Neighborhood Unit concept in the sixties because the PUD called attention to particular

innovations that the practices developed under the Neighborhood Unit paradigm lacked. The

shift away from the Neighborhood Unit concept was more pragmatic than rational.

6.1: Emergence of Shopping Centers as a Major Development Typology

The research on shopping that Perry developed for the RPA monograph was influential both within planning and federal policy circles and in the real estate development industry itself. But this is in part because so little work had been done in the twenties. Suburban shopping areas that were comprehensively planned in discrete districts were a relatively new and untested idea. The example that Perry was most familiar with – Bouton's Forrest Hills Gardens – was never particularly successful, and at any rate its location within New York City was quite unlike suburban environments elsewhere in the country. While Perry's research was useful in some respects (e.g. estimating spatial requirements and in distinguishing everyday shopping from more specialized needs), he underestimated the impact of the automobile on shopping habits.

Shopping center development was intermittant during the Great Depression and World War II. There was a great deal of development immediately after the War, however, and practices quickly evolved. ULI published two major reports in 1949 (Mott and Wehrly 1949, Hoyt 1949) that greatly expanded the knowledge on developing and operating shopping centers. The material on shopping centers in the *Community Builders Handbook* expanded from 66 pages in the first edition to 72 in the second and 108 in the third. In this 1954 edition the chapter on shopping center development expanded into an entire section, with chapters on market analysis, site planning, architectural design, and operation and management paralleling similar chapters on residential development. Other research (McKeever 1953, Nelson 1954, Voorhees 1955, McKeever 1957a, McKeever 1957b, Hoyt 1958, ULI 1965, Gruen and Gruen 1966) followed.

In the years following World War II shopping centers grew in size, and if initial models were planned as integral parts of neighborhoods their orientation shifted towards one that was

primarily geared towards auto-oriented use. Initial and revised versions of the Hillsdale

Shopping Center help to illustrate the shift. Like shopping in Perry's Neighborhood Unit

concept diagram or in Midwest City, retail buildings in the initial version of Hillsdale fronted the

streets, framing a major entrance to the neighborhood. A limited amount of parking was

relegated to the rear of the lot. In the revised version buildings were shifted to the center of the

site and allotments to parking spaces increased. The changes increased the availability of

parking without substantially increasing the farthest distance a customer would have to walk

between parking space and store. More importantly, it made parking visible to drivers while still

on the road. The changes – larger shopping centers, increased parking, and placing parking in

front of the buildings – increased the viability and acceptance of suburban shopping centers, but

loosened them from their tight integration into the neighborhood unit.

Informed by the Technical Bulletins and by practical experience, shopping center knowledge in

the later editions of the *Community Builders Handbook* (ULI 1954, 1960, 1968) grew into a three

tiered typology consisting of neighborhood, community, and regional centers. They were

distinguished based on size of development, number of stores, type of anchor store (grocery,

discount or junior department store, and department store for neighborhood, community and

regional centers, respectively), and size of addressable market. The typology fused Perry's

norms with some of the most successful centers in the pre-WWII period (notably Nichol's

Country Club Plaza and Potter's River Oaks in Houston) which were more regional in nature.
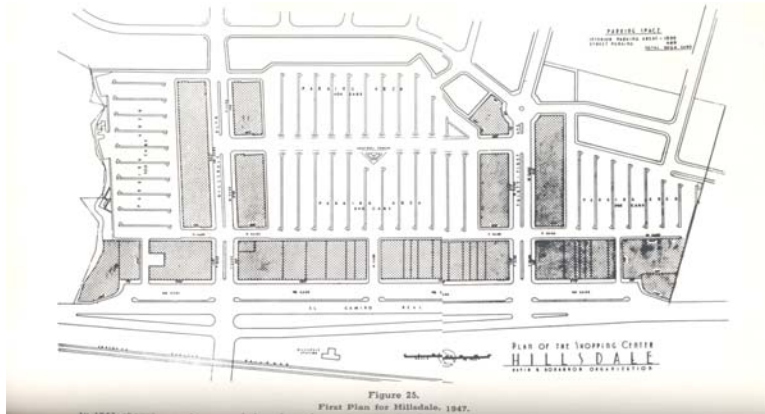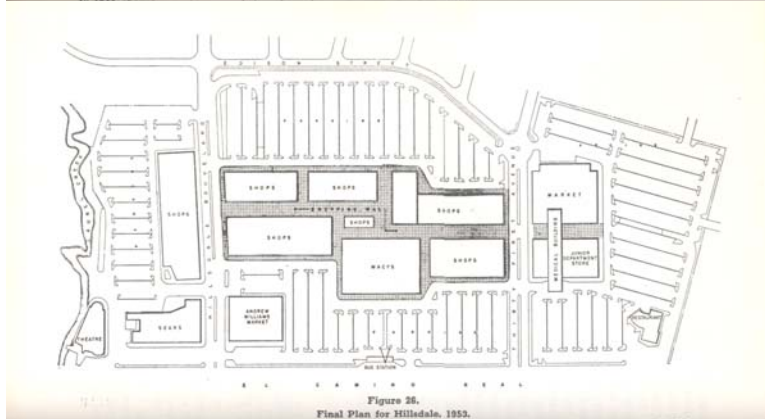
Figures 6.1, 6.2. Initial and final versions of Hillsdale Shopping Center showing the orientation of buildings away from streetfronts. (ULI 1954)

Regional shopping centers were not intended to be part of a neighborhood, and their size and

traffic load necessitated separation and buffering to protect residential lots. Yet the *Handbook*'s

norms for these centers ironically took on many of Perry's Neighborhood Unit principles. The

Dayton-Hudson Company's Northland shopping center shown in figure 7.3 was exemplary.

Northland was 160 acres, planned as a comprehensive unit, had a hierarchical street system with

highways bounding the site and a local-only system inside it, and included community-oriented

space at the center as the focus of the development. Northland pulled customers from a three

hundred thousand person trade area. Though far from a neighborhood unit, Northland

nonetheless drew on many of the Neighborhood Unit principles.
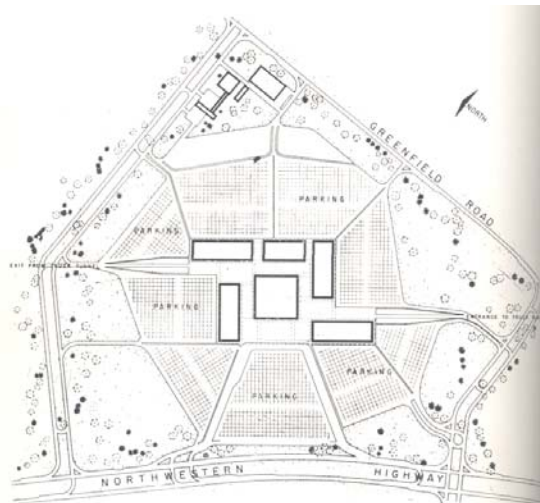
Figure 28.

Northland Shopping Center Site Plan.

Northland occupies 160 acres of a 409 acre tract in Southfield Township on the northern outskirts of Detroit. Parking is provided on a ratio of 1 space to 148 sq. ft. of gross building area. The parking area has 9 sections with over 6,500 spaces plus an area for over 1,000 employee cars. The center is accessible from 2 main highways with connecting roads on the site for access to the parking areas.

Figure 6.3. Northland, an early regional shopping center. (ULI 1954)

Shopping centers came of age in 1957 with the release of two ULI retrospective reports (McKeever 1957a, 1957b) and formation of the International Council of Shopping Centers. ICSC was a professional and lobbying organization for developers, owners and operators of shopping centers. Members included traditional subdividers as well as many of the major department store companies, like Dayton-Hudson, that had expanded into the development and operation of centers anchored by their stores. The formation of ICSC reflects the extensive proliferation of suburban shopping centers in the previous decade (there were now enough centers to warrant an international organization). It also marked a level of maturity in the industry, with shopping center expansion tracking general population growth rather than the ramping up of a new market (Hoyt 1958). Where shopping center developers initially developed rapidly to tap an unmet need, the maturation of the industry meant that centers had to worry about competition, differentiation, and continual refurbishment. The more successful shopping centers like Southdale used events and seasonal programming make the mall a destination.

Figure 6.4: A home fashions show in the plaza of Southdale Center, the first enclosed shopping mall (ULI 1960).

This led shopping centers away from Perry's Neighborhood Unit concept in two senses. First, the trend towards differentiation led centers away from Perry's everyday neighborhood uses towards the agglomeration of stores and the inclusion of specialty uses not found elsewhere: shopping centers had to become more like traditional downtowns. Second, the kinds of maintenance and operation practices that it demanded called for a different kind of professional expertise: successful shopping centers required more than the planning and development work at the core of community builders practices.

6.2: Emergence of the New Town Movement

In the 1960s, the most idealistic of the real estate developers replaced Perry's Neighborhood Unit concept with a push towards developing new towns. Leading examples like Robert Simon's Reston, VA and James Rouse's Columbia, MD sought to plan whole communities rather than mere neighborhoods, with employment centers, a full complement of land uses, housing for diverse age groups, ethnicities and income levels, and a population large enough to support specialized functions like a community college or performing arts center.

New Towns have had a long tradition in planning, of course. Howard provided the paradigm with the Garden City concept. The biggest impact was in Great Britain, which developed a large number of New Towns after World War II. But the public sector has played a much larger role in urban development in England compared with the U.S. Initially at least, the development of comprehensively planned new towns required a level of government coordination that was unpalatable to American real estate developers. The main American inheritor of the New Town tradition prior to the sixties were the Resettlement Administration's Greenbelt Towns program. Developed by the Federal government, they posed a threat to developers that the developers actively campaigned against.

Members of the Urban Land Institute were involved in large scale development projects early on, although they lacked the vision of Howard's Garden City and the leading new towns developed in the sixties. Complete cities and towns had long been a challenge for members of ULI's Industrial Council. Because industrial location was based more on proximity to natural resources than it was to urban regions, companies often had to develop full towns adjacent to factories. Early ULI literature (Wehrly 1951) drew on Perry's principles to organize neighborhoods but

otherwise lacked guiding concepts The industrial town in fig. 6.5 illustrates this. Ironically, one

of the first ULI Panel Studies (ULI 1952) developed ideas for the remnants of Greenhills, OH,

which was sold off by the federal government after World War II.

other similar places of assembly. Sites for these   Service advises that criteria similar to those de-
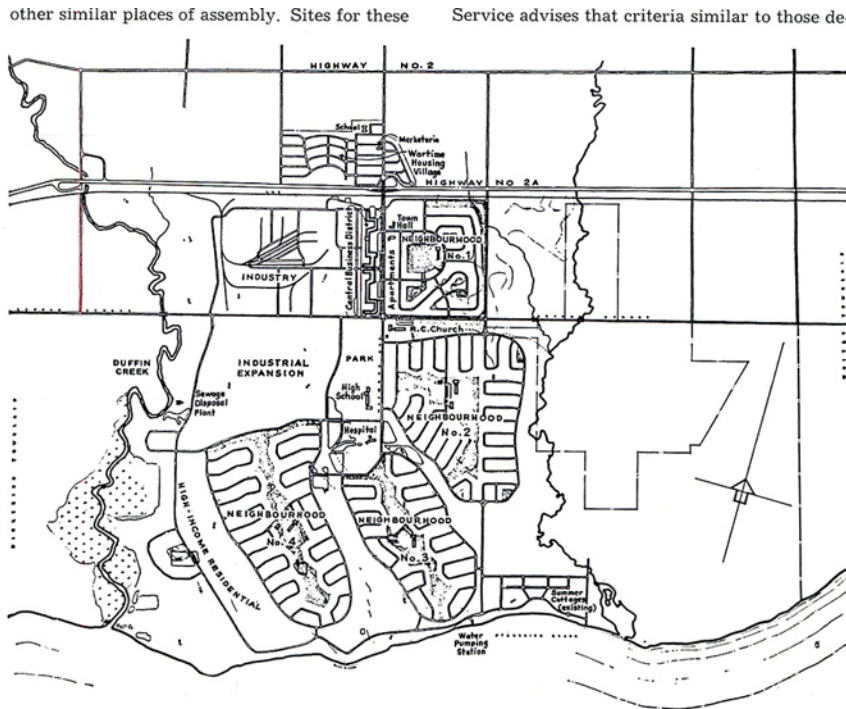
FIGURE 2

Plan of Ajax, Ontario, Canada, illustrates in general one kind of community discussed in this manual without reference to the detail of layout or design. This town is currently being developed in connection with industry. See Appendix. B.

Figure 6.5: Neighborhood Units in industrial town planning (CITE TB 16)

Perry's Neighborhood Unit concept was sucessful in pushing the scale of development

from the lot to the district, but it offered less for projects that were larger in scope. Uninspiring

case developments like Belmont and Northglenn showed the concept's limits. Heading into the

sixties they were increasingly the norm. Also, the Eisenhower interstate highway system

destablilized community builder development practices by opening up large parts of the

metropolitan fringe to development. The comprehensive planning and inclusion of community

facilities became less important to successful neighborhood development than proximity to the

interstate. The 1968 edition of the *Community Builders Handbook* emphasizes this shift by

including a map of the highway system, not merely in the *Handbook* but on the page facing

Perry's Neighborhood Unit Principles.
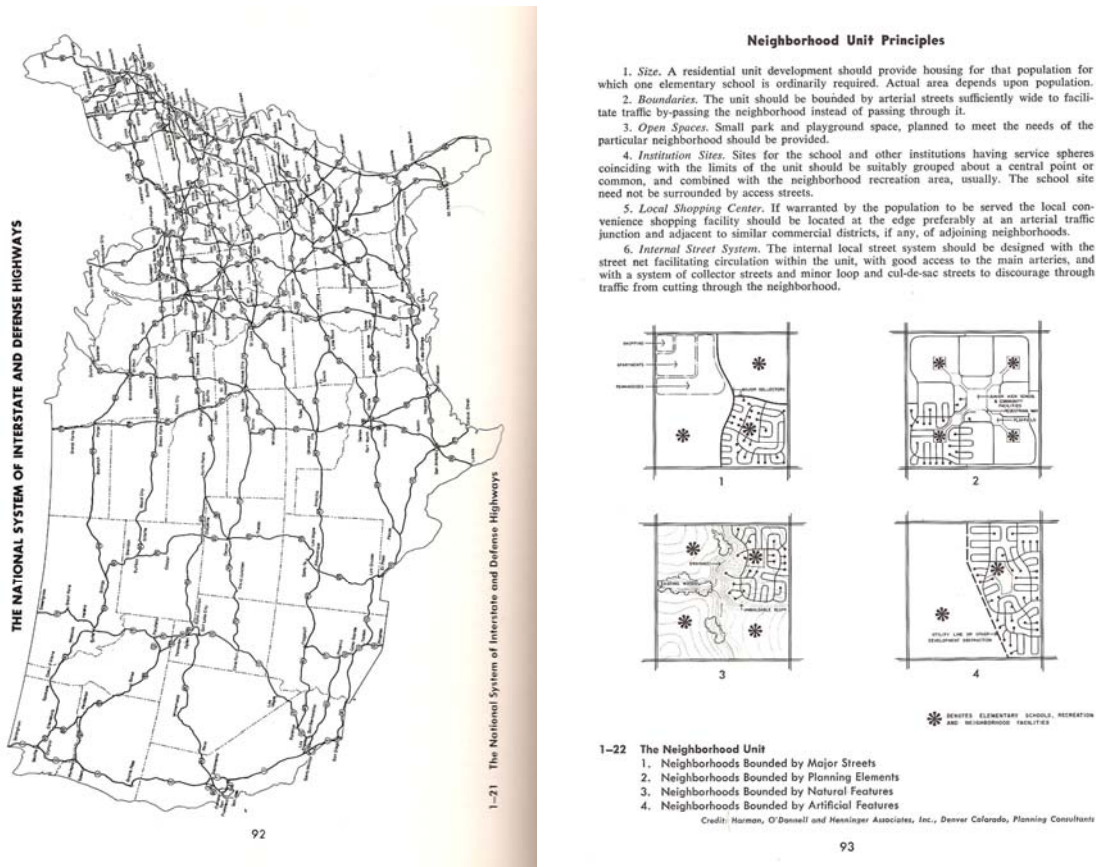
Figures 6.6, 6.7. A map of the national interstate highway system faces the Neighborhood Unit
principles, with new versions of the neighborhood unit diagram introduced in the final edition of the
Handbook (ULI 1968)

Columbia and Reston were responses to these shifts in suburban development, which brought

business and industry out of the city in a way the Neighborhood Unit concept was not equipped

to address. Figure 6.8 shows a schematic plan of Columbia, from the last edition of the

Community Builders Handbook. Columbia was nucleated in a manner echoing Perry and

Howard. It had a town center surrounded by a set of ten villages, each of which were composed

of a set of neighborhoods. An industrial belt was inserted into the interstitial space between

villages. Each neighborhood and village, as well as the town itself, had a center with uses

appropriate to the scale of urban form, and village and town centers would be connected via bus

lines. Neighborhoods in Columbia were a bit smaller than Perry's Neighborhood Units, and

villages a bit larger. This was a reflection of the split in elementary school service spheres which

had become smaller since Perry's day (due to smaller class sizes) and neighborhood shopping

service spheres which had grown. Importantly, Columbia was planned to accommodate the full

diversity of American ethnic, class, and age demographics. Individual neighborhoods were still

homogenous, following the norm that had been well-established in the real estate industry's use

of Perry's Neighborhood Unit concept. But the form of the villages allowed different kinds of

neighborhoods to coexist together.
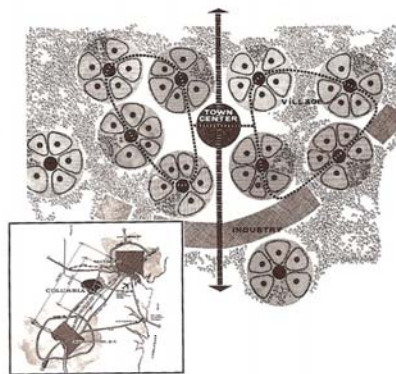
2-19   Columbia, A New Town in Maryland
Planning Determinants—Diagram of overall concept. Ten villages, comprised of 5 to 6 neighborhoods each, having a neighborhood center as indicated by small black dot supplement each of the Village centers shown by larger dot, are connected by general circulation pattern and pedestrian open space to the major Town Center or new downtown. Heavy broken line indicates major access highway, Route 29.

2-19A   Location Map
Columbia lies within the path of rapid development between the Metropolitan areas of Baltimore and Washington, D. C.

calls to the approved doctors, prescription drugs from the Leisure World pharmacy, physical therapy and ambulance service; and complete use of all the planned facilities—clubhouse, golf course and community transportation system.[51]

K. NEW TOWNS

Figure 6.8: schematic plan of Columbia, MD (ULI 1968).

Developer interest in New Towns was made possible by the time lag that had put memories of the socialist adventures of the New Deal in the distant past. The idealism and thoughtful planning of developer-driven new towns of the sixties made new towns an intriguing idea, despite the difficulty in coordinating financing and development for projects that would take thirty years to implement. They also helped to generate a diverse coalition of interests strong enough to advance a series of legislation culminating in Title VII of the Housing and Urban Development Act of 1970, which provided certain kinds of financing for the development of New Towns. Though no Title VII project was successful (Steiner 1981), the legislation was evidence of a wave of broad public support for new towns in the sixties. A new planning paradigm had arrived.

6.3: Emergence of the Planned Unit Development

The last of the big ideas to emerge in the sixties was the Planned Unit Development (PUD). The PUD was a regulatory device that set the standards for zoning and subdivision regulation by area rather than by lot. They gave developers more flexibility in addressing public controls. Developers could for instance satisfy an ordinance that mandated a maximum of two dwelling units per acre by developing at a higher density on a portion of the site and leaving the rest as open space[19]. The resultant open space and attendant community facilities could then be operated by a home owners association.

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[19] E.g. a 160 acre site in an area zoned at a maximum of two dwelling units per acre could support up to 320 houses. Developing the same number of houses at a higher density, say four dwelling units per acre (320/4=80) would take up eighty acres of space. This would leave an additional eighty acres, which if

I use PUD here as a convenient shorthand for a related set of innovations. This included PUDs, town houses, cluster housing, flexible zoning controls, and improved subdivision regulations (Harman, O'Donnell & Henninger 1961)). The town house and related ideas such as the patio house were a reintroduction of traditional attached row housing made suitable for suburban contexts. Cluster housing was a means of preserving valued open space by concentrating a subdivision's allotment of houses on a smaller portion of the site. Flexible zoning controls and improved subdivision regulations allowed for more variation and creativity in subdivision by introducing performance standards and regulations that applied to the subdivision as a whole rather than each lot. In the sixties PUD synthesized these innovations into a new paradigm.

Two partnerships did most of the legwork to develop and publicize the PUD. A joint NAHB-ULI land use committee produced a series of reports (Harman, O'Donnell & Henninger 1961, Harman, O'Donnell & Henninger 1963, Krasnowiecki 1965, Norcross 1966, Newville 1967) that developed the underlying principles of land subdivision for PUDs was well as the building typologies for cluster housing, patio housing and town homes. A partnership between the FHA and ULI did much of the work to develop the PUD's legal underpinnings in terms of new zoning, subdivision regulation, and home owners association policies (ULI and Hanke 1964, Wolffe 1968, Stabile 2000). The key figure in this latter partnership was Byron Hanke, an FHA staff member who moved to ULI's offices to conduct the majority of the PUD research.

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developed as open space would satisfy the overall density goal under a PUD regulation (80ac @ 4du/ac + 80 ac @ 0du/ac = 320 du on 160 ac, or 2du/ac).

The PUD was a response to the widespread dissatisfaction with the suburban environment emerging in the post-War era. Members of the ULI were critical of the perverse incentives in local government decision-making. Many suburban municipalities were moving towards zoning for large lots, both as a means of holding down certain infrastructure costs (e.g. schools, policing) and for preserving rural character (Wetmore 1958). Smaller suburban municipalities were also asking developers to pay for community schools, parks, and playgrounds in addition to the basic street and sewer infrastructure. (McKeever 1955). Growing infrastructure costs spurred developers to move to unincorporated areas, exacerbating suburban sprawl.

Zoning regulations in this environment seemed inflexible. Wehrly's introduction to PUDs provides valuable context:

> "Urban growth no longer takes place on a lot by lot basis; it happens area by area. In present day practice new residential areas are built subdivision by subdivisions, commercial areas are created through shopping centers, industrial areas are constructed as organized districts. Yet the structure of zoning ordinances has not kept pace with the changed pattern of land development… the [Planned Unit Development] underscored the need for flexibility in zoning specifications as effective means for obtaining necessary open space for community facilities and for preventing overcrowding – applied to new growth areas." (Lovelace and Weismantel 1961)

Perry's Neighborhood Unit concept successfully pushed planners and developers to think in terms of areas rather than lots. FHA mortgage insurance policies followed this shift, but

zoning regulations stayed behind. The PUD in this way was both an extension and a

transformation of the Neighborhood Unit.

The initial principles for Planned Unit Development published in the Urban Land Institute

literature were contextual. They reflect a concept that did not stand on its own, but instead both

responded to and built upon existing zoning regulations. Density in the principles "remains

unchanged", but "variety… is encouraged" and "residential lot sizes… may be reduced".

Standards apart from existing and unnamed codes were incomplete or unstated.

Principles to be observed in the design of Planned Unit Developments:
1. The gross population density and building intensity remain unchanged and conform with the basic overall density requirements of the zoning district. Lot dimensions and areas do not have to meet specific ordinance requirements.
2. Variety of dwelling and building types is encouraged.
3. Residential lot sizes related to single-family detached units may be reduced.
4. In areas where town house dwellings are used, no more than five town house units in any contiguous group should be used. Minimum lot size should be not less than 3,000 square feet and rear yard depth not less than 25 feet where the lot does not abut a park or open space easement.
5. Possible clustering of dwellings is accomplished through reduction of lot area.

Figure 6.9: Planned Unit Development principles (Harman, O'Donnell & Henninger 1961)

Development of PUDs reflected an interest in creativity and new ideas. ULI literature discussed

"Innovations vs. Traditions in Community Development" (Harman, O'Donnell & Henninger

1961) for instance. Importantly, it extended the tradition of land planning research pioneered by

Unwin (cf. figures 5.2-5.4, Chapter 5). Figures 7.10 and 7.11 compare conventional land

planning designs with cluster housing and townhome schemes developed in a PUD. The

comparison is based on the extension of Perry's Neighborhood Unit concept developed in earlier

FHA and ULI literature. Each example is for a 160 acre tract placed in a quarter square mile

section of a typical Jeffersonian grid. The conventional (i.e. Neighborhood Unit) designs show

homogenous single lot housing at various densities, with space allocated for school and open

space at the center. The PUD shows pods of housing stemming off of a collector road, with a

larger and less well-defined open space area. The argument was similar to Perry, Whitten, and

Adams' from thirty five years before: a development carefully planned as a unit, by skimping on

roads (and in this case, lot size), could create park and recreation space at a minimal additional

cost. There were two major differences. Zoning in conventional developments was by lot size

and in PUDs by average area density. And where open space was relegated in the conventional

developments to the school plant, in PUDs it was more expansive, to be owned and maintained

by a homeowners association.
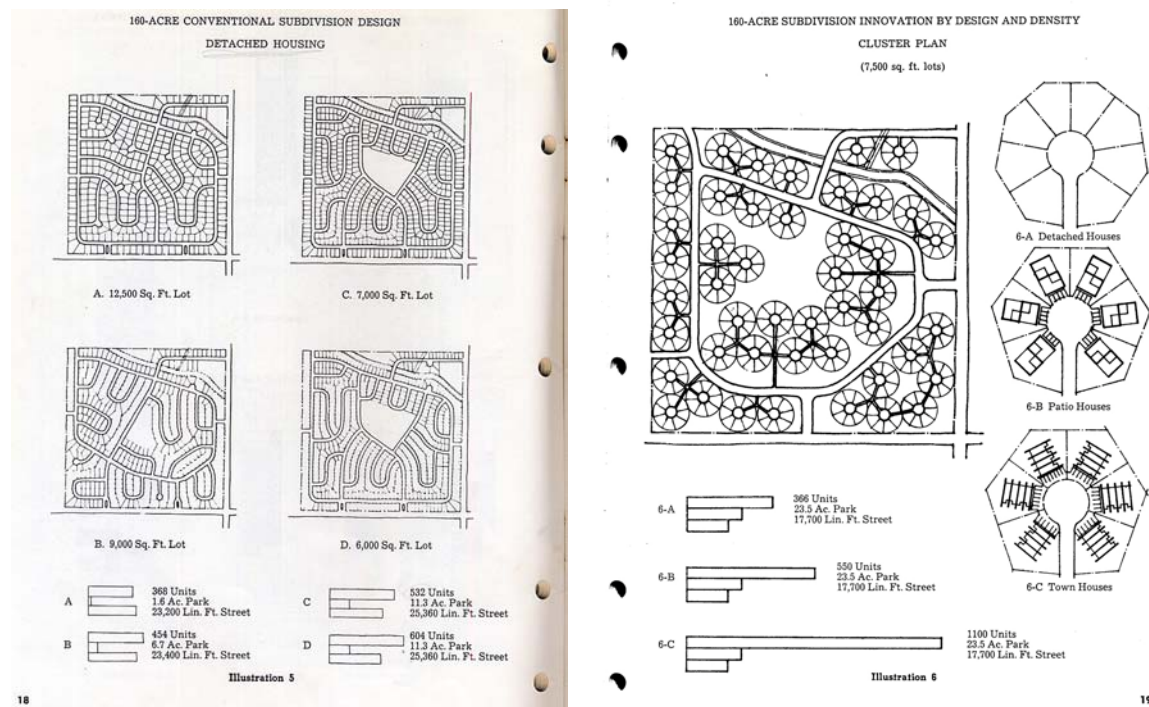
Figures 6.10, 6.11: comparison of conventional land planning and cluster housing (Harman, O'Donnell & Henninger 1963)

As I discussed in Chapter 4, home owners associations were a major part of Perry's thinking in

the Neighborhood Unit concept, in as much as he conflated them with spontaneous community

organizations. Nevertheless, this aspect of the Neighborhood Unit concept was left out when it was adopted by the FHA and ULI. In the 1960s, Perry's Neighborhood Unit concept was associated with the conventional form of development, and the reintroduction of home owners association was credited to the PUD paradigm.

The leading figure in advancing this aspect of PUDs was Hanke (McKeever 1968, U.S. Dept. of Housing and Urban Development 1970). Trained as a landscape architect, Hanke was familiar with Radburn, and he drew on Radburn for lessons on how to provide a high level of community amenity. The emphasis was on leisure – FHA literature incorporated pictures of happy suburban families lounging, having cookouts, and playing sports in community-owned park facilities (fig. 6.12). The development of townhomes extended the home owners association's responsibilities to lawn care, giving residents more time to spend on other activities (U.S. Dept. of Housing and Urban Development 1970).

1: SOME ABC'S ON PLANNED-UNITS

WHY SOMETHING NEW?

To meet his needs and desires over the years, man has developed many different types of living units and living environments.

Within the past decade, rapid urbanization has intensified a new need—the provision of an economical single-family living unit adaptable to urban densities, yet keeping many of the attractive features of the suburban home.

The benefits of modern technology and a prosperous society also bring the need for a residential environment suitable to a more leisurely, carefree life. Increasingly, many people of all age levels have both strong desire and ample time for recreational activities outside the home. Moreover, many busy young professionals, the elderly, the handicapped, and others, need or want homes that are free of the burdensome exterior maintenance associated with large yards and detached houses.

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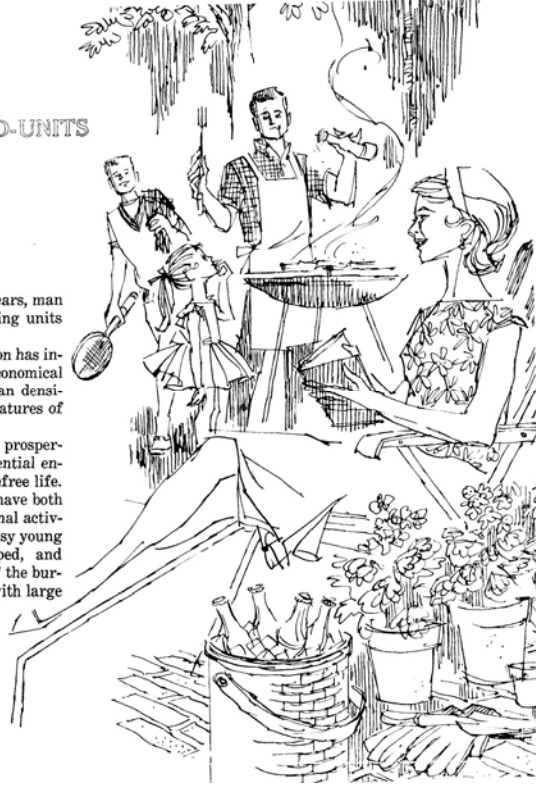
Figure 6.12: Federal Housing Administration literature on Planned Unit Developments emphasized leisure (U.S. Dept. of Housing and Urban Development 1970)

The first mention of Radburn in the *Community Builders Handbook* was in the 1968 edition in its discussion of PUDs. With a full generation passed since development of Radburn and the New Deal era Greenbelt towns, real estate developers were able to use the Radburn model without its association with socialism. Here Radburn exemplified the extension of Neighborhood Unit development to incorporate the principle innovations of the PUD: area zoning, innovations in housing, and community facilities owned and operated by a home owners association.

may also include land uses of a religious, cultural, recreational, and commercial character to the extent that they are designed to serve the residents.[147] Within this concept, a planned unit may range from a cluster of detached houses and town-houses with their own park-recreation space to a wholly new town with all its diversity of land uses and community facilities.[148] Again, residential density, aver-

1–27 The Radburn Plan
        Radburn is the prototype of planned unit development. See footnote 148 below.

[147] *Legal Aspects of Planned Unit Residential Development*. Technical Bulletin 52, Urban Land Institute. No commercial use, nor any building devoted primarily to a commercial use should be built and established prior to the residential buildings or uses it is assigned or intended to serve.

[148] Planned unit development is not a new concept. In the early 1920's, architects Clarence Stein and Henry Wright proved with the development of Radburn, New Jersey, that a community of closely grouped houses and large common spaces could be economically practical.
   Designed then as "the town for the Motor Age," elements of the Radburn plan included: superblocks, 30 to 50 acres in size, in place of the then characteristic narrow, rectangular blocks; specialized roads (cul-de-sacs) built for service and access use instead of for all uses; pedestrian walks completely separated from roads, with underpasses instead of intersections, the walks leading through and connecting the park areas; houses turned around, with living and sleeping rooms facing parks and gardens, and service rooms such as the kitchen facing access roads; and common, interconnected large open spaces as the backbone of the community.
   A simple planned unit development contains a number of homes of the same type combined with common open space. A complex form may include a variety of housing types—detached single-family houses, townhouses, garden apartments and high-rise apartments—along with open space and common areas containing recreational and community facilities such as a swimming pool, a school, a community center or a variety of other accessory uses.
   In size, planned unit developments can range from five acres to well over 1,000 acres. However, number of units instead of area is a better determinant for size. The minimum number may be as few as five or six units, though 50 units or more would be more likely as a qualification for applying the planned unit concept.
   Planned unit developments are frequently referred to as PUD's. By the definition above, planned industrial parks, shopping centers, office building parks or any development that comprises groups of buildings planned and built in pre-arranged relationships to each other and to the common facilities or properties may be considered planned units. However, the discussion here applies to planned unit development for residential uses.
   See also "A Symposium on Planned Unit Development." *University of Pennsylvania Law Review*, Vol. 114, No. 1, Nov. 1965.

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Figure 6.13. The first mention of Radburn in any edition of the Community Builders Handbook was in reference to Planned Unit Developments (ULI 1968).

Planned Unit Developments were a transformation of development and regulatory practices that promised flexibility in zoning, variety and innovation in housing, and a higher level of community amenities paid for by home owners and maintained by a home owners association. This was not much different than what Perry promised in the Neighborhood Unit concept in the initial RPA monograph. But diffusion of the Neighborhood Unit altered the concept. Planners, developers, and federal policy makers readily adopted the practice of planning by unit, of developing infrastructure concurrent with development, and keeping arterial roads at the neighborhood edge. Other innovations – the home owners association, overly mannered garden city design, and broad public powers for condemnation and redevelopment – they largely

ignored. In some ways – lower residential density, homogenization of housing, growth in

shopping centers – Neighborhood Unit practices evolved away from Perry's Neighborhood Unit

concept. Importantly, it was the diffusion of the Neighborhood Unit concept that mattered

moreso than Perry's intent. For better and worse the Neighborhood Unit concept came to

represent the accumulated policies and practices of the FHA, ULI, NAHB, and APHA that built

up over thirty years, and the Planned Unit Development was a reconfiguration of those practices

that incorporated additional innovations – nevermind whether they were a part of the

Neighborhood Unit's original intent. The enthusiasm for the Planned Unit Development in the

sixties was a reflection of the staleness of Perry's idea.

The Neighborhood Unit	Planned Unit Development
- Zoning by lot - Homogenous single family housing - Park space combined with school site - Neighborhood size - Curvilinear street network - Convention - Inflexibility - Arbitrary public regulation	- Area (i.e. density) zoning - Cluster housing - Open space maintained by home owners association - Scalable to different sizes - Pods; minimization of local streets - Innovation - Creativity,flexibility - Performance standards; increased developer discretion.

Figure 6.14: Comparison of Neighborhood Unit and Planned Unit Development practices in the 1960s

6.4: Conclusion

Perry's Neighborhood Unit concept played a leading role in catalyzing changes in mid-twentieth

century development practices. By the sixties, though, many of the changes had outstripped the

original concept. Shopping centers had become a development typology in its own right, with its own organization and specialized development firms. Community Builders were building larger and more sprawling developments. If the typical community builder had grown complacent – less conscientious – the most idealistic of them had moved beyond the Neighborhood Unit to look for models for developing whole towns or cities. New problems emerged – low density zoning, single-use developments, cognisance of the full impact of auto-dominated planning, and a loss of a sense of identity or place in metropolitan suburbs. Invented as a response to earlier problems and serving as the paradigm for the kind of practices that birth these problems, Perry's Neighborhood Unit concept was poorly suited to be an exemplar of change. Though still valued, it was subsumed under a set of other paradigms, not least of which was Planned Unit Development.

CHAPTER 7 Discussion and Critique

7.1 New Urbanism's use of the Neighborhood Unit concept

Beginning with its founding in the early nineties the Congress for the New Urbanism has played a leading role in renewing interest in the quality of the urban realm. Their advocacy has reached public consciousness in addition to architecture, planning, development, and political communities. Though they have sought to address urbanism at all scales from the single building to the metropolitan region, New Urbanism has undoubtedly been most successful at the neighborhood level. Here Traditional Neighborhood Developments and Transit Oriented Development have been very popular, with an increasing number of developments and prices generally commanding a premium over comparable conventional developments.

Perry's Neighborhood Unit concept has been critical to New Urbanism at the scale where the movement has been most valuable. Plater-Zyberk spoke admiringly of Perry's concept along with a couple of other ideas:

> "The 'neighborhood unit' of the 1929 New York Regional Plan, the 'quartier' identified by Leon Krier, the 'traditional neighborhood development' (TND) and 'transit-oriented development' (TOD) share similar attributes. They all propose a model of urbanism that is limited in area and structured around a defined center. While the population density may vary, depending on its context, each model offers a balanced mix of dwellings, workplaces, shops, civic buildings and parks." (Duany and Plater-Zyberk 1994).

Early on Duany created a new version off of Perry's Neighborhood Unit concept, one that had

more gridded streets, alleys, and a commercial strip that extented into a bus line at the center of

the neighborhood. Duany's Neighborhood Unit diagram has since been published in the

standard manual for architects (Ramsey and Sleeper 2000).
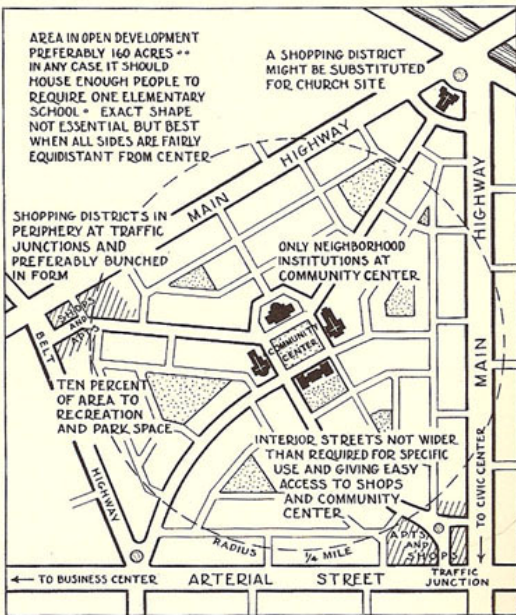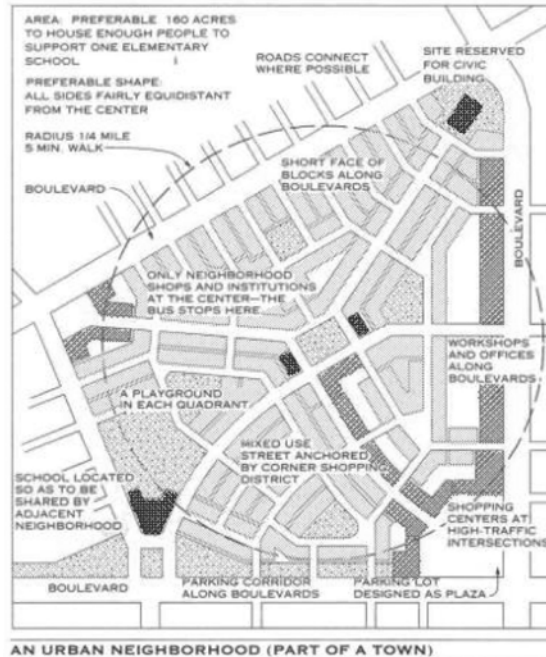
Figures 7.1, 7.2: Comparison of Perry's Neighborhood Unit concept and Duany Plater-Zyberk's (Ramsey and Sleeper 2000) version.

New Urbanism's use of Perry's Neighborhood Unit concept speaks to a compact, walkable

development with a mix of uses and a strong sense of community and a public realm. No doubt,

then, New Urbanists would be disappointed by the Neighborhood Unit concept's legacy after

World War II. By any measure, the developments that ULI advanced as exemplary

neighborhoods in the sixties were sprawling. Northglenn, CO was developed at a low density.

Though planned as a whole it was divided into discrete single use districts. It lacked coherence,

in its parts or in sum, and failed to establish a strong sense of place apart from a commercial

center that was much like regional shopping malls elsewhere in the country.

Andres Duany has placed the blame for sprawl on Corbusian modernism (Duany, Plater-Zyberk,

and Speck 2000). In this argument the wide variety of professions involved in urban

development were led astray by international modernism and modernism's chief proponent Le

Corbusier. CIAM, in Duany's eyes, abandoned the traditional culture of urbanism developed

slowly over time – including moving beyond the tradition of neighborhood design of which

Perry's Neighborhood Unit concept was a pinnacle.

This dissertation is not the place to examine the influence of CIAM on post-war American

suburban development practices. CIAM was certainly influential, particularly within

architectural discourses. But its influence on ULI's Community Builders Handbook was implicit

at best. It was Perry's Neighborhood Unit concept, above all others, that served as the

Community Builders Handbook's guiding image[20].

7.2 Criticizing the diffusion of the Neighborhood Unit concept through a New Urbanist lens

How did the Community Builders come to develop places like Northglenn, based on the

principles of Clarence Perry's Neighborhood Unit concept? In this section I attempt to offer a

critique of the diffusion of the Neighborhood Unit concept from a New Urbanist point of view,

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[20] Note that the Neighborhood Unit concept was the central theme of the 4th CIAM. Both Dahir (1947) and
Ostrovsky (1970) credit the influence of the Neighborhood Unit on CIAM urbanism.

describing six factors (see figure 7.3) that connected the Nighborhood Unit concept to the low

density suburban development of the 1960s. It is not my intent here to argue that the

Neighborhood Unit concept was a failure, but rather to connect the analysis of the diffusion of

the Neighborhood Unit concept in this dissertation to the more recent understanding of the

Neighborhood Unit concept developed within the Congress for the New Urbanism.

How the Neighborhood Unit concept engendered 1960s suburbs

- Separation of home and work environments
- Flawed retail model
- Universalism
- Malleability
- Role in organizing urban development
- Role in organizing the real estate development industry

*Figure 7.3: Criticism of the Neighborhood Unit concept from a contemporary
New Urbanist perspective*

First, despite its nominally mixed-use character, Perry's Neighborhood Unit concept fostered a

larger separation of home and work environments, one that when extended in post-War suburban

development patterns exacerbated sprawl. In Perry's model, the Neighborhood Unit was a

primarily residential district, one that was connected to a central business district and other areas

outside the unit but within a larger metropolitan region. The design of the arterial roads and

siting of the commercial areas within the neighborhoods acknowledged the Neighborhood Unit's

connections to its surroundings. Drawing from Forrest Hills Gardens, Perry spoke of locating

the shopping center beside transit nodes, along the way to work. He included a diagram that

provided norms for how far one should travel from home to other uses – elementary school, local

shops, high school, downtown, etc. One of the essential tasks in formulating the Neighborhood

Unit concept was bounding what belonged in a neighborhood (homes, elementary school,

community institutions, parks, local shopping) from what did not (high school, business district, factories, specialized regional institutions). Aside from a few professional offices, he presumed employment would lie elsewhere outside of the Neighborhood Unit. Spurred by the threat that auto traffic presented to pedestrians, Perry highlighted and almost fetishized the boundary between what was within the Neighborhood Unit and what it must be protected from. Unlike Howard's Garden City concept, the Neighborhood Unit was neither a discrete nor complete model for human settlement. The distinction between home and work environments was solidified and expanded as a result.

There is some usefulness, of course, in carving out of a residential environment from the broader needs of human settlement. The internal logic of the Neighborhood Unit is very strong. Focusing solely on residential needs brought clarity and focus to the Neighborhood Unit concept and gave it a sense of purpose. If there was both a model for the planning of employment districts that was as well developed as the Neighborhood Unit and, more importantly, a regional scale concept that solved the problem of how neighborhood scale units fit together, than the omission of employment environments from the Neighborhood Unit concept would not be a serious issue. It is clear in the RPA monograph that Perry intended the connections between Neighborhood Unit and work environment to be worked out elsewhere. The Neighborhood Unit was but one model in a larger toolkit. No additional models attained a similar importance as the Neighborhood Unit however - neither in the Regional Plan of New York, nor in the land planning principles promulgated by the FHA, nor in the Community Builders Handbook.

This radical separation between home and work environments became more problematic because Perry's prescription for retailing was flawed from the start. Remember from Chapter 3 that Perry based his prescription for local retailing on two pieces of knowledge. First, survey data on the prevalence of businesses in a metropolitan population: he deemed businesses like groceries and drug stores that were more common than one for every 4800-9000 people to be local. Second was a development rule of thumb that said there was an average of 50' of retail frontage for every 100 people. Both were averages for a metropolitan region, and discounted the concentration of retailing in downtown business districts.

Though there were few models of neighborhood shopping centers to go by, the examples that Perry was familiar with, and cited, did not provide supporting evidence for his prescriptions. The center in Roland Park, often deemed the first modern suburban shopping center, was never particularly successful in meeting residents' everyday needs. The shopping district in Forrest Hills Gardens similarly struggled, something that as a resident Perry would have been well cognizant of. The shopping center in Forrest Hills Gardens may have been an architectural extension of the larger commercial district across the rail line in Forrest Hills, but its out of the way siting tucked behind the tracks marginalized it as a retail space. Of the cases that Perry cited in the RPA monograph, the Country Club Plaza was easily the most successful, but the Plaza was anamolous with Perry's prescriptions. Country Club Plaza was essentially a regional center with a larger number of stores drawing from a wider trade area, and was designed for a specialized high-end market rather than providing for everyday, run-of-the-mill needs.

The initial editions of the Community Builders Handbook largely followed Perry's prescriptions for shopping center development. However, it was not until after World War II when development demand for suburban shopping centers became widespread that his prescriptions could be tested. As I explained in Chapter 5, the scale of Perry's shopping center was too small to be successful. It failed to account both for the pull of regional shopping destinations and for the challenge of competing with neighboring shops. The size of neighborhood centers (to say nothing of the community and regional typologies that emerged in the fifties) was larger than what Perry suggested. As a result they drew from a larger trade area than a single Neighborhood Unit. Cite the Community Builders Handbook's norms here. The service area of a neighborhood shopping center turned out not to be commesurate with the service area of an elementary school.

This fact challenged the shopping center's inclusion in the Neighborhood Unit. If shopping centers drew from a larger area than a single neighborhood, they would attract traffic and customers that, by Perry's principles, ought not to go through a neighborhood. This was irrespective of lower density housing, auto-dominated design, and community and regional center typologies, all of which emerged in the fifties and served to further separate the shopping center from the Neighborhood Unit. The increasing detachment of shopping center from neighborhood unit was cemented by the emergence of design norms that created buffers between shopping center and residential neighborhood (cite examples), causing the initially mixed-use residential environment of the Neighborhood Unit to separate into discrete single-use zones.

The (textual and visual) rhetorical form of Perry's Neighborhood Unit concept also helps explain how its adoption could lead to sprawling development. Two points are important to consider here. First, the *univsersalism* of the Neighborhood Unit meant that it offered little help in establishing a sense of place, and offered little advice in how to adapt its broad principles to local contexts. Keep in mind that Perry developed the concept to appeal to the Regional Plan of New York's broad constituencies. He produced illustrations for neighborhood units in suburban, industrial, and dense urban contexts, and for single family as well as apartment homes. Further, Perry discussed ways the Neighborhood Unit concept might be of use in three contexts: new developments, urban renewal, and for the improvement of existing areas. He crafted his Neighborhood Unit principles to be broadly applicable to each context. This precluded specific recommendations – on density for example. It also precluded context-dependent recommendations beyond broad brush illustrations that served merely to show that the concept was feasible.

The manner in which the Urban Land Institute presented the Neighborhood Unit concept didn't help. The Community Builders Handbook was a straightforward manual presenting the current state of professional knowledge. It defined what went into communities and discussed how to develop them in a step by step fashion, but provided little nuance, context, or historical discussion. Several ULI Technical Bulletins provided more depth, profiling developments that served high end or warm weather markets, for instance, but not the Community Builders Handbook. The Handbook was geared towards greenfield development and addressed neither existing (i.e. inner city) urban areas nor redevelopment or modification of suburban developments. This remained the case until the 1968 edition, at a time in which the original

post-war developments were decidedly showing their age. The meager level of nuance exhibited

in the Community Builders Handbook can be seen by the revisions to the Neighborhood Unit

diagrams in the final edition. The Community Builders Handbook's insensitivity to context can

be compared with the Panel Studies, published contemporaneously by ULI, which relied on

detailed case study and evaluation, or by the reformulated Community Builders Development

Handbook Series published beginning in 1972, which covered inidividual development

typologies in greater depth, including extensive discussion and a variety of case studies.

The universal abstraction of the Neighborhood Unit concept offered a great deal of general

information about how to build neighborhoods, but little contextual information about how to

contribute to placemaking. This weakness was exacerbated with the Neighborhood Unit

concept's dissemination in national professional and governmental organizations, which helped

to forge through the Neighborhood Unit a uniform knowledge base and a uniform set of

practices.

Second, whether due to the need to address a broad audience or more simply a result of it being a

concise abstraction, Perry's Neighborhood Unit concept was *malleable*. Conventional practices

for elements within the Neighborhood Unit shifted over time, something that was easily –

perhaps too easily – accomodated by the concept. Perry's original formulation allowed for

housing for a range of densities. Through the thirties, and increasingly after World War II,

residential densities decreased. The spatial size of the units increased as a result. Shopping

centers increased in size (more on this below) drawing from a larger population, spreading them

out further. Changes in the design of streets and parking – to become more accomodative of auto

traffic – further altered the character of neighborhood units. Nevertheless, Perry's Neighborhood

Unit concept largely supported such changes. It's six principles – enough homes to support and

elementary school, bounded by arterial roads, open space, community institutions at the center,

local shopping, and an internal street network – were abstract and flexible enough to allow a

great deal of change.

The fifth and sixth points I would like to make do not pertain to the principles of the

Neighborhood Unit directly, nor to how the principles were framed or presented, but rather

concern how the Neighborhood Unit was used.

Perhaps the greatest effect of the Neighborhood Unit concept was in *organizing* development. It

was a force for shifting the scale of development from a lot-by-lot to area wide basis. Weiss

described the value of this shift for the early community builders. Lot-by-lot development

encouraged overspeculation and created a real estate industry with low capital costs and few

barriers to entry. It not only made it difficult to maintain quality and stability in a residential

environment, then, but also forced developers willing to make investments into competing with

low-rent curbstoners. It was Perry who provided the most articulate argument for making that

shift.

The consequences of this shift were wide-ranging. Thomas Adams' books, the President's

Conference on Home Building and Home Ownership and then the FHA all brought Perry's work

to bear on shifting conventional homebuilding practices. Of necessity they were pragmatic. The

emphasis was less on the Neighborhood Unit as a whole than on ways conventional practices

could be improved. Their diagrams (see figs. 5.4 through 6.3) led us away from the gridiron and in the case of the FHA emphasized the closing off of streets at the edge of a subdivision irrespective of whether it formed a full neighborhood unit. They organized the scope of subdivision and home building, but then could be used whether or not a developer had the size of lot required to build a complete neighborhood. Keller Easterling (1999) has identified the Neighborhood Unit as an *organizational protocol*. I will touch on her work further in the following chapter.

Finally, as their defining image, the Neighborhood Unit helped to *organize the real estate development industry*. The group that would go on to become the Urban Land Institute's Community Builders Council began as a small cadre of high-end real estate subdividers. As I discussed in Chapter 4, developers like Nichols and Bouton participated in planning organizations to generate new ideas, develop an interdisciplinary professional network, and gain acceptance for their work. A clear vision, the Neighborhood Unit helped the community builders form a nascent community out of the much broader NAREB. It provided moral justification that helped leading community builders prevent the entire homebuilding industry from being nationalized during the Great Depression and then World War II.

Ideas like the Neighborhood Unit matter in the development of professional organizations. Nevertheless, organizations are fluid. To say that the Neighborhood Unit was the defining image for the community builders is not to give it the force of law, of course, nor is it to suggest that the organization it helped to define will remain committed to its principles. In a dynamic

professional organizational environment, defining images like the Neighborhood Unit operate more as a means of inflection than fixation.

The Neighborhood Unit concept distinguished the Community Builders Council from ULI's Central Business District and Industrial Councils. For the greenfield suburban context that became the Community Builders Council's purview it defined a set of practices – residential and neighborhood-scale retail development – that were appropriate and omitting (for a time) other practices including industry and large scale employment. This had the effect of driving suburban development for twenty years after World War II, with suburban industrial and commercial development only gradually emerging as coherent development practices (practices whose challenge to the Neighborhood Unit model would lead to the breakup of the Community Builders Handbook and the reorganization of the Urban Land Institute councils).

This last point may be abstract, but the power of the Neighborhood Unit to organize real estate development practices is an important one. It might be easier to understand this power by imagining what post-war suburban development might have been like if the Community Builders had instead adopted Howard's Garden City concept as a guiding image. This was the case in Britain's New Towns, for instance. The development of suburban environments similar to Britain's New Towns, with commercial, employment, and industrial centers – and the emergence of real estate development practices responsible for them – would have to wait until the sixties with Rouse's Columbia, MD and, to a lesser extent, Victor Gruen's ideas for community centers.

7.3 Conclusion

A critical view might characterize the Urban Land Institute's use the Neighborhood Unit as a perversion of Perry's ideas. Based on the Belmont or Northglenn developments there is certainly truth to that assessment. Still, it is worth examining how this came to be. Despite the poor resemblence of the Community Builders developments in the sixties to Perry's Neighborhood Unit concept, the Neighborhood Unit nonetheless played a signficant role in their emergence. In this chapter I have argued that the suburban sprawl exemplified by the Community Builders Handbook in the 1960s was a consequence of the Neighborhood Unit's separation of land uses, flawed retail model, universalism, malleability, and organizational power – both in terms of physical development and of development practices.

Part of the problem is the expectations we have for knowledge. Perry's Neighborhood Unit concept may have been perverted by the Urban Land Institute, but I would argue that in a professional context we can expect that knowledge will always be perverted as it informs different professional communities and as those communities adapt it to suit their purposes. It is how knowledge gets twisted that matters. To understand why I examine three ways of looking at knowledge in the following chapter.

CHAPTER 8 Analysis and Conclusion: A Pragmatic Take on Perry's Neighborhood Unit Concept

8.1 Three Perspectives on Knowledge

When in *Beyond the Neighborhood Unit* Banerjee and Baer tried to close the book on Perry's Neighborhood Unit concept, they did so for two reasons. First, half a century of accumulated evidence suggested that, at the least, the Neighborhood Unit was undeserving of being the sole guiding paradigm for residential development. Planners criticized it for overromanticizing a rural lifestyle and for its physical determinism in presuming that the spatial neighborhood would shape community interaction. Sociologists questioned the vailidity of neighborhoods as a social concept, and whether they were necessary or relevant in a modern society in which social relations were increasingly not place-based. Critics argued that it conflicted with American values by enforcing social, economic, and racial homogeneity. Evaluation of developments based on the neighborhood unit model found that while they were often well liked, residents did not identify with the neighborhood as a unit, and did not want shopping or even schools as a focal point. In different studies neighborhood units were found to be too large for social interaction, too small to support their service functions, and too inflexible to accommodate growth and change in schools and shopping.

Banerjee and Baer went further, however, to criticize the manner in which the Neighborhood Unit was constructed: Perry was hardly scientific, at least by the standards of Banerjee and Baer's time. A concept for residential development based on a sound foundation of scientific

research should be objective, driven by analysis of empirical evidence, based on the perceptions of residents, reflective of their values, subject to testing, and held up to the competition of rival theories. The Neighborhood Unit concept, in Banerjee and Baer's eyes, was deficient in that it was the arbitrary invention of one man. It imposed prescriptions prematurely, before phenomena was rigorously examined. It reflected designers' values rather than residents'. It relied on the normative judgment of percieved experts rather than objective empirical evidence. It was not tested in any systematic fashion. And it was universally accepted as a model without consideration of rival ideas. Banerjee and Baer acknowledged that the demands of social scientists for certain, objective, absolute truths were not always compatible with the needs of practioners for paradigmatic concepts that were broadly useful in serving as a guide for action, but they nevertheless argued that such paradigmatic concepts should be more scientifically well-founded than Perry's Neighborhood Unit concept.

A decade after *Beyond the Neighborhood Unit*, however, the Congress for the New Urbanism resuccitated Perry's Neighborhood Unit concept. The Congress for the New Urbanism's use and justification of the Neighborhood Unit was broadly in concert with the approach that Banerjee and Baer criticized. It called attention to age-old practices of urban design, placing a high value on historical precedent. It valued the expert judgment of design professionals. While not adverse to scientific research, it prioritized the advancement of fundamental principles over their examination and testing. The Congress for the New Urbanism's perspective was more in keeping with the later work of Christopher Alexander. After becoming disillusioned with efforts to establish urban design theory based on deductive logic (Alexander 1964), Alexander moved to a more philisophical and even mystical stance, arguing that patterns of urban form were innate

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to the human experience and demanded an openness and sensitivity to human experience (Alexander *et al.*, 1977). Banerjee and Baer do not completely damn this approach. They acknowledge the long history of organizing urban form in neighborhoods, and the parallel history of designers drawing on this history. But they argue that a scientific basis is stronger.

Banerjee and Baer and the Congress for the New Urbanism offer two differing perspectives on knowledge which for the purposes of this dissertation I will call the scientific and the Platonic. The former draws on traditions of scientific research prevalent in academia, particularly the behaviorist traditions in vogue in design fields in the seventies. The latter draws on philosophic traditions and holds more sway in professional/practitioner contexts. In some ways the models are contrasting and incompatible. In others they merely differ in their focus or orientation. In any case, I argue that scientific and Platonic views of knowledge, either separately or in tandem, are inadequate in understanding the nature of concepts like the Neighborhood Unit.

The New Urbanist adoption of Perry's Neighborhood Unit concept is ironic not merely because it occurred so soon after *Beyond the Neighborhood Unit*, in much the same manner as Banerjee and Baer criticized, but also because both Banerjee and Baer and the New Urbanists were critical of the current state of urban development practices, yet their criticism led each to very different stances towards the Neighborhood Unit. For Banerjee and Baer the contemporary state of residential development standards was based solely on the Neighborhood Unit concept, a paradigm that was both outmoded and poorly founded from the start. For the New Urbanists, the contemporary state of residential development standards was outmoded, having given up any interest in neighborhoods, and the Neighborhood Unit was a means of reestablishing good design

principles, including mixed use, walkability, and a community focus. For Banerjee and Baer the problem was the Neighborhood Unit; for the New Urbanists the problem was abandoning the Neighborhood Unit. Their understanding of what the Neighborhood Unit entailed differed.

Scientific and Platonic perspectives on knowledge are both essentialist in the sense that they view knowledge as having meaning that is fixed at least in principle or at the core. Neither does a good job accounting for how the meaning of knowledge may differ, either for different groups of people or in different times. Difference in a scientific perspective is accounted for by illegitimizing knowledge as scientifically unfounded. Difference in a Platonic perspective is often enveloped in a perversion narrative, in which groups are blamed for deviating from a true path (as in, for example, the New Urbanist narrative that blames sprawl on modernist architects and their abandonment of history).

I argue that a *pragmatic* view of knowledge is useful in understanding the impact that Perry's Neighborhood Unit concept had on suburban real estate development practices. The pragmatic view of knowledge holds that meaning is grounded in experience. Verma (1996) draws out three important facets of pragmatism. First, the pragmatic *theory of truth* "suggests that the objective truth of actions or scenarios – objective facts – cannot be separated from the preparedness of an audience to accept these facts" – that is, it calls attention to the time, work, perspective, and larger understanding required for the audience to come to an understanding of an objective fact. Second, the pragmatic *theory of meaning* "says that the meaning of an idea lies in its consequences and not in its genesis". Third, Verma argues that Pragmatism is *anti-foundational*. Here he quotes James's characterization of the pragmatic method: "the attitude of looking away

from first things, principles, 'categories', supposed necessities; and of looking towards last things, fruits, consequences, facts."

A pragmatic view of knowledge is not instrumental, in the sense that we might accept as true whatever would allow us to get what we want. Rather, it is centered on the user, and their needs and experience in making sense of phenomena. Carlile (2002) describes this as *localized* in particular tasks and problems, *embedded* in the know-how, methods, and technologies of actors, and *invested in practice*, concerned with the successful conduct of tasks[21]. It is through practical activity that we develop a concern for phenomena we seek to understand, and our process of knowing – learning – is shaped (but not determined!) by practical activity.

Knowledge in this sense is less concerned with the manner of its construction or resemblance to historical precedent. Dependent on context, it acknowledges that meaning can differ between actors, situations, or times. Finally, in a pragmatic perepective, knowledge is validated through its practical utility in aiding particular tasks or problems.

	Scientific	**Platonic**	**Pragmatic**
Mode of reasoning	Deductive/inductive	Inductive	Abductive
Basis for theorizing	Logical construct	Historic precedent	Habit / happenstance
Nature of knowledge	Universal	Universal	Context-dependent
Weakness of perspective	Reductionist	Dogmatic	Contingent
Method of validation	Empirical	Resemblance to ideal	Usefullness in practice

Figure 8.1: Comparing three perspectives on knowledge

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[21] Carlile is particularly useful to the current discussion because he shares our interest in knowledge. Most of the theoretical research bringing Pragmatism to urban planning (e.g. Blanco 1984) dwells rather on rational planning i.e. a process of inquiry, rather than knowledge per se.

A pragmatic perspective on knowledge helps account for difference in meaning and use of Perry's Neighborhood Unit concept across professional groups and through time. Discussion of its implications should help us get a grasp of the power of leading ideas like the Neighborhood Unit concept.

8.2 Difference in meaning: the Neighborhood Unit as a boundary object

Remember that in Chapter 3 we discussed the influence of the fields of social work, sociology, architecture/urban planning, and real estate development on Perry in his development of the Neighborhood Unit concept. Each field has its own spheres of concern (akin to what Schon 1983 called *domains*; Starr and Griesemer 1989 use the more totalizing term *worlds*) – social work with the provisioning of services and the betterment of living conditions, sociology with the nature and order of social life, architecture and urban planning with the design of the physical urban environment, and real estate development with the economic enterprises of subdivision and homebuilding. The vector of influence between fields and concept was not unidirectional. The Neighborhood Unit concept affected a field to the extent that it addressed a field's concerns. In social work it said something about the scale of the service area for community services. To sociology it was a claim about a mediating unit of social order between individual and society. For architecture it was a statement about the composition and arrangment of uses. In real estate development it concerned a minimal scale of development required for the viability of valued services and to maintain stability and control of property values.

Spheres of concern were overlapping but not identical. In each case, a professional would be likely to view the Neighborhood Unit concept differently, based on their field's particular concerns.

We can understand this more clearly by comparing the Neighborhood Unit's use in the *Community Builders Handbook* and in *Planning the Neighborhood*, a contemporaneous manual that provided standard knowledge for the urban planning profession. The Neighborhood Unit interested developers because it was a model that provided strong, stable value for real estate. Moral exhortations quoted in the Community Builders Handbook are indicative:

> "Let us so pland and build, in order to create stable values and neighborhoods of such permanent character as to endure for generations." – J.C. Nichols (ULI 1947, p38)

> "A home is not a detached unit but a part of a neighborhood, which in turn is part of a town; and the good quality of the home usually depends at least as much on its surroundings as on its design and construction. Hence the vital importance of ground planning and control of the development of neighborhoods". – Thomas Adams (ULI 1947, p*x*)

The Community Builders Handbook "emphasized the practical and realistic aspects of community development against the background of sound city and community planning" (vii). Perry's Neighborhood Unit concept was influential because it provided both the rationale for

developing in large plots (rather than lot by lot) and the model of planning and control through which development values could be enhanced. Not only did it explicitly define the product of a Community Builder's work (as evidenced in the section on site planning in the *Handbook*); it also framed the system of knowledge about how to go about creating that product (i.e. the contents of the *Handbook* described in a step by step fashion how to develop Neighborhood Units – at least in the sense of developing on suburban greenfield sites).

Planning the Neighborhood was a guidebook written by Anatole A. Solow and Ann Copperman under the guidance of Frederick Adams and the Subcommittee on Environmental Standards of the American Public Health Association's Committee on the Hygiene of Housing. It was aimed at and largely developed by urban planners[22]. Perry's Neighborhood Unit concept was relevant because it provided a framework for getting at environmental factors afftecting health – a concern that included social as well as physiological dimensions:

> "The Committee on the Hygiene of Housing approaches this subject with the conviction that the primary objective of housing is health. The sense in which our Committee understands that term includes not only sanitation and safety from physical hazards but also those qualities of comfort and convenience and aesthetic satisfaction essential for emotional and social well-being." (Solow and Copperman 1949 p.*v*)

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[22] The chair of the Subcommittee was Frederick J. Adams, son of Thomas Adams and then chair of the planning department at MIT. The Subcommittee was largely staffed by associates of Adams who were members of AIP.

"It [the neighborhood] is the physical and social environment which constitutes

the basis for healthful housing, since man is primarily a social animal." (Solow

and Copperman 1949 p.*vi*)

Planning the Neighborhood's use of Perry's Neighborhood Unit concept was more thorough

than the *Community Builders Handbook*. It quoted Perry for a general definition of

neighborhood ("that area which embraces all the public facilities and conditions required by the

average family for its comfort and proper development within the vicinity of the dwelling"

(Solow and Copperman 1949 p1, quoting Perry in Housing for the Machine Age), used Perry's

maxim that a neighborhood unit should be based on the service area of an elementary school, and

discussed the Neighborhood Unit principles in depth. Its six chapters[23] built on *The*

Neighborhood Unit and *Housing for the Machine Age* by adding material focused on public

health – discussing "local hazards and nuisances" (pp6-7) and drainage, water, and sewage

(pp13-20) for instance. Discussion of density, of circulation, and of local shopping and services

were framed in terms of residents' health and well-being. For urban planners reading *Planning*

the Neighborhood, Perry's Neighborhood Unit concept provided a framework and a locus for

conceptualizing a wide variety of public health concerns. Further, it provides a set of standards

for addressing those concerns, as well as suggesting the means by which planners might regulate

development to ensure that it meets those standards.

There are commonalities between *The Community Builders Handbook* and *Planning the*

Neighborhood. Both are driven by a concern for housing. Both derive their concern for

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[23] I. Basic Requirements for Site Selection, II. Development of Land Utilities and Services, III. Planning
for Residential Facilities, IV. Provision of Neighborhood Community Facilities, V. Layout for Vehicular
and Pedestrian Circulation, VI. Neighborhood Density; Coordination of Housing Elements

neighborhoods from the importance the surrounding neighborhood environment has on the quality of housing and residential life. Both use Perry's Neighborhood Unit concept as their sole guiding model to explicate technical dimensions of the compelling-but-amorphous common language notion *neighborhood*. Their purposes, however, were different, embedded in fundamentally different professional concerns and activities.

What is going on here? I do not entirely disagree that various groups have, as both Banerjee and Baer and New Urbanists have argued, manipulated, corrupted, misapplied, or otherwise misunderstood aspects of Perry's Neighborhood Unit concept. But a pragmatic view of knowledge helps us understand how, driven by their own peculiar values and concerns, various groups use the Neighborhood Unit concept differently – and, moreso, derive different meaning from it. Because there is a kind of social ecology to the development of the built environment, with its interdisciplinarity and its collection of knowledge, laws, and institutions, knowledge – and the meaning of particular concepts – is not likely to be monolithic. This difference in understanding arising in heterogenous teamwork is echoed by Cuff in her study of the social production of built form (Cuff 1989)[24].

The pragmatic insight that different groups will view the same concept in different ways through particular spheres of concern brings us to an important aspect of leading ideas like Perry's Neighborhood Unit concept: the Neighborhood Unit played a critical role as a *boundary object* (Starr and Griesemer 1989, Carlile 2002) bridging disparate professional groups. When we accept that urban development is an interdisciplinary process, that professional groups have

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[24] Cuff's case is quite different from the phenomenon of the Neighborhood Unit, but as an example of differences in understanding that arise in interdisciplinary teamwork it is instructive.

different roles and values, and that this leads groups to understand even the same concept in different ways, we can begin to see how effective coordination amongst interdisciplinary groups requires productive work. Perry's Neighborhood Unit concept was spectacularly effective in this regard. To operate usefully as a boundary object concepts like the Neighborhood Unit require the right mix of coherence and ambiguity – coherence to be sensible and have meaning as a concept, and ambiguity to be tolerant or receptive to the concerns of a variety of groups. Star and Griesemer describe boundary objects as being "plastic and robust… weakly structured in common use and strongly structured in individual use." Boundary objects like Perry's Neighborhood Unit concept are critical in organizing interdisciplinary environments because they facilitate autonomy within professsional spheres and coordinate interaction across them. That is, Perry's Neighborhood Unit concept helped the variety of professional groups involved in urban development to get on with their business – for the Community Builders construction and sale of suburbs and for urban planners ensuring that those suburbs were healthy environments – by providing a platform through which those specialized worlds could intersect.

It is not merely that different groups understood Perry's Neighborhood Unit concept in similar but in some respects fundamentally different ways. Rather the important point is that this difference serves a purpose. Perry's Neighborhood Unit concept provides value beyond the overt (i.e. its informational content) by enabling the interdisciplinary work of urban development. Further, it facilitates the interdisciplinary, pluralist coalition-building necessary to enact public legislation – i.e. if Perry's Neighborhood Unit concept had salience merely in the design fields it would not have been as useful in framing the debate over federal housing policy during the Great Depression.

8.3 Pragmatic meaning: the Neighborhood Unit as a lever of change

We typically view design ideas like Perry's Neighborhood Unit concept as an end state. Howard's Garden City model, Le Corbusier's Radiant City, and Wright's Broadacre City are similar examples. They illustrate a particular urban vision, and we take that vision more or less literally as something to aspire to (or reject), perhaps modifying the concept to suit our purposes, using some aspects and making adjustments to others. Garde (2008) writes of concepts in this manner when he compares integrative paradigms and degenerative variations.
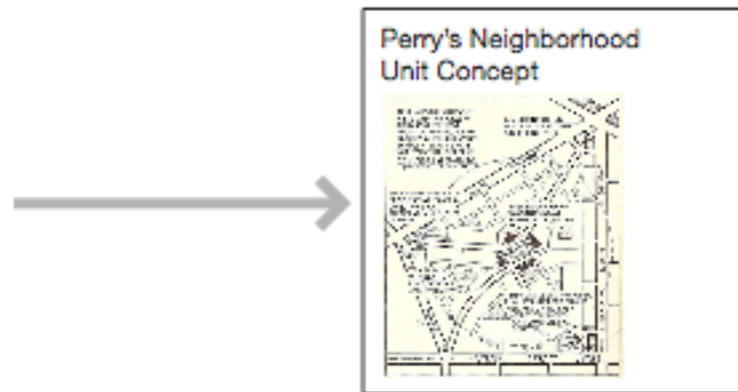

Figure 8.2: Perry's Neighborhood Unit concept as an end state.

If we view knowledge as pragmatic, though, we can also understand ideas like Perry's Neighborhood Unit concepts as *means.* That is, we can view ideas as transformational tools that take one thing and make it into another. In this way of thinking we can view Perry's

Neighborhood Unit concept as a mechanism that helped shift the laissez faire subdivision practices of the early twentieth century towards practices that were managed and regulated.

Knowledge in this view is highly contextual. It dwells in specific circumstances a particular details. Concepts like the Neighborhood Unit then provide a lens (Schon and and Wiggins 1992) through which we can interpret a situation that frames both our understanding and our view of potiential actions. At the time of its original publication, for example, Perry's Neighborhood Unit concept called attention to deficiencies caused by lot by lot development, with poor building standards, a lack of infrastructure, and blighting influences. This interpretation then pointed to a need for comprehensive, coordinated planning. Perry's Neighborhood Unit concept in this sense was not just a vision but a contextual lever of change, pushing us to alter specifc practices.

20's
laissez-faire
subdivision

lot by lot development
minimal infrastructure
no standards
curbstoner homebuilding

Perry's
Neighborhood Unit
Concept

development by area
comprehensive planning
subdivision regulations
community ammenities
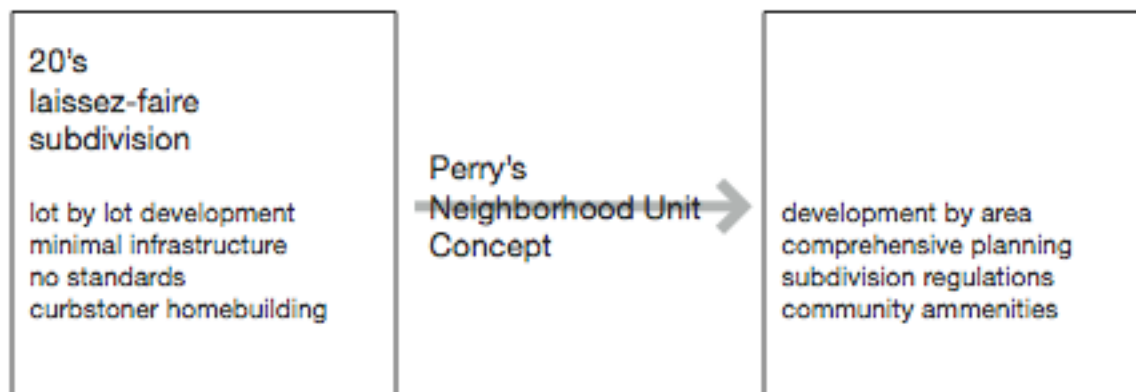
Figure 8.3: The Neighborhood Unit concept as a means of transforming early twentieth century development practices.

Keller Easterling's work (1999) helps us understand this pragmatic way of viewing knowledge as a lever of change. Drawing on an examination of three urban interventions – the

Neighborhood Unit concept, Benton MacKaye's Appalachian Trail, and the US interstate highway system, Easterling developed an understanding of urban design concepts as *organizational protocols*. Organiztional protocols provide specific instructions for particular actions. As an organizational protocol Perry's Neighborhood Unit concept told us that residential areas should be planned in chunks of houses that would generate enough children to support an elementary school, and that those chunks should be comprehensively planned, with a full complement of infrastructure built concurrent with development. The emphasis here is thus more on the means than the ends.

One consequence of viewing the Neighborhood Unit concept as a lever of change rather than ends is that we can apply it to contexts other than residential environments. Indeed, real estate developers applied the Neighborhood Unit concept's innovation of developing subdivisions as comprehensively planned units to an increasing number of other typologies after World War II. Robert Boley (chairman of ULI's Industrial Council in the sixties) description of development practices is telling:

> "By 1960 ten years of an unprecedented pace in urban growth not only had vastly
> spread urbanization outward from core cities, but also had transformed traditional
> land development practices. Lot-by-lot subdivision methods changed to extensive
> tract undertakings by a single developer. Large-scale, community-type developments
> became commonplace. *With the changes, new land use forms evolved quickly.*
> Blocks of garden apartments wedged into the conventional suburban patterns of
> single-family houses. The shopping center with its sizable site area dominated as the
> form of new commercial land use. Similarly, the organized industrial district

emerged as the land development form applied to new industrial, warehousing, and

distribution service locations. Office uses followed the trend… Projects characterized

by master planning became eminently successful because of the amenities achieved in

their development. *As these projects grew in number and quality, such pre-planned*

site arrangements could be identified and labeled as a new land development form –

the planned unit." (Boley 1970; italics mine)
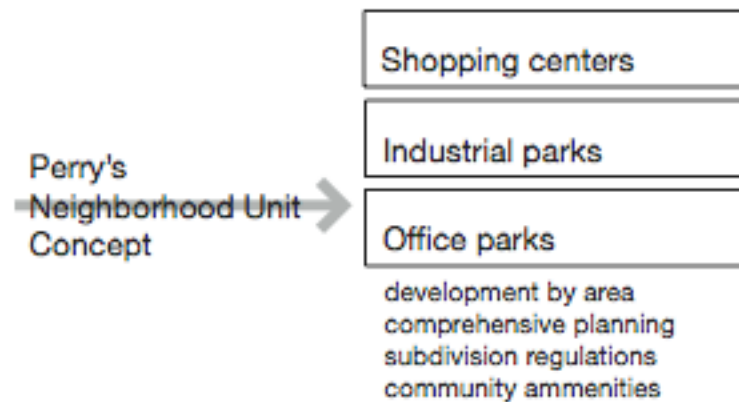
Figure 8.4: Applied as an organizational protocol in a variety of contexts, Perry's Neighborhood Unit concept helped create several new typologies.

While its innovations were applied in a variety of contexts, Perry's Neighborhood Unit concept

was nonetheless disciplined by the shared meaning embedded in its use. In part because of its

efficacy as a boundary object, Perry's Neighborhood Unit concept gained a powerful network

effect (Rogers 2003). This both established Perry's Neighborhood Unit concept as a leading

paradigm and inextricably associated the concept with the changes that the Neighborhood Unit

helped to frame and the Federal Housing Association institutionalized. The Neighborhood

Unit's impact as the exemplar or paradigm for such changes was more important than the

Neighborhood Unit concept itself.
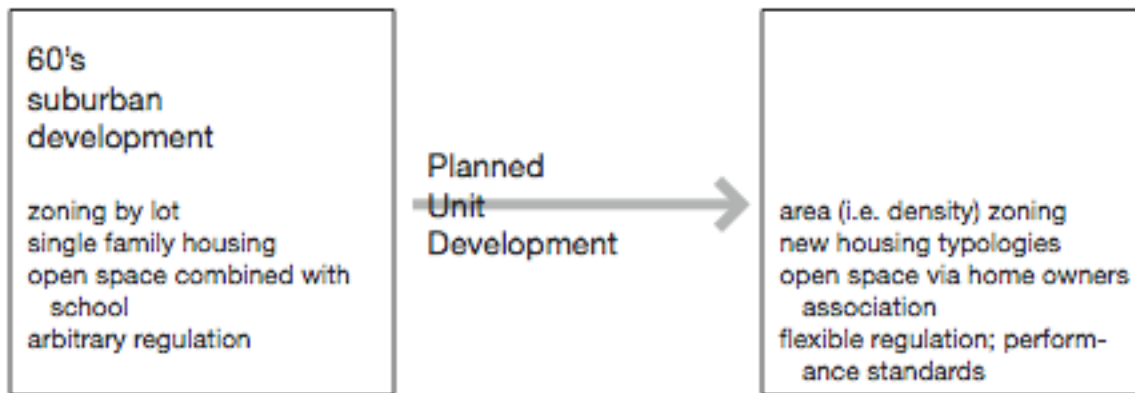
Figure 8.5: Planned Unit Development as a pragmatic lever of change.

This helps to explain the emergence of Planned Unit Development in the sixties. Even though

Perry talked at length about home owners associations, a variety of housing types, and a system

of park spaces, it became associated with conventional, FHA-driven subdivision practices of

single lot homes, with recreation space only at the school site. Applying Perry's Neighborhood

Unit concept to these traditions in this particular time period becomes essentially meaningless: it

is akin to stating the obvious or maintaining the status quo. A pragmatic view of knowledge that

sees concepts in terms of means rather than substantive ends helps explain the excitement around

Planned Unit Development. Though similar to and an extension of Perry's Neighborhood Unit

concept, it placed an emphasis on area zoning, new forms of housing, the use of home owners

associations to pay for and maintain community ammenities and flexibility for the developer. It

was these innovations that were valued at that particular time.

8.4 Mythic Facts: Predecessor Selection in New Urbanism's use of the Neighborhood Unit

Perry's Neighborhood Unit concept took on new meaning with the emergence of new Urbanism in the nineties. Used to frame a critique of suburban sprawl, New Urbanists called attention to the Neighborhood Unit as a compact, walkable, mixed-use, diverse model for development (see figs. 7.1, 7.2).
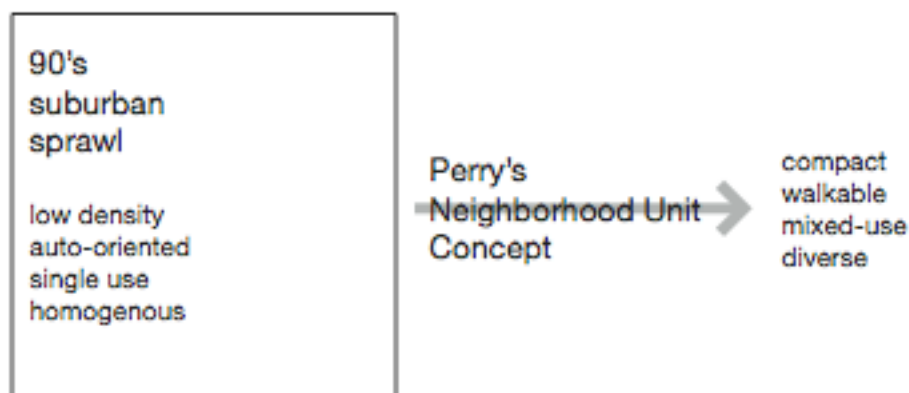
Figure 8.6: New Urbanism's use of Perry's Neighborhood Unit concept.

This use of Perry's concept is at least a little bit curious, because it calls attention to characteristics that (if not explicitly rejected) were not Perry's prime concern. Remember from Chapter 3 that Perry was more concerned with making the Neighborhood Unit concept be applicable to a range of contemporary development densities than he was with making the Neighborhood Unit concept walkable. His commitment to mixed-use was real but limited to

specific elements – schools, parks, churches, and shopping centers if they were carefully planned and located only on the margins of the unit. With respects to housing diversity he was contradictory. Even while illustrating a mix of housing types reminiscent of Forrest Hills Gardens, he spoke admiringly of the homogenous and exclusionary housing policies employed by developers like J.C. Nichols and supported by contemporary sociological theories.
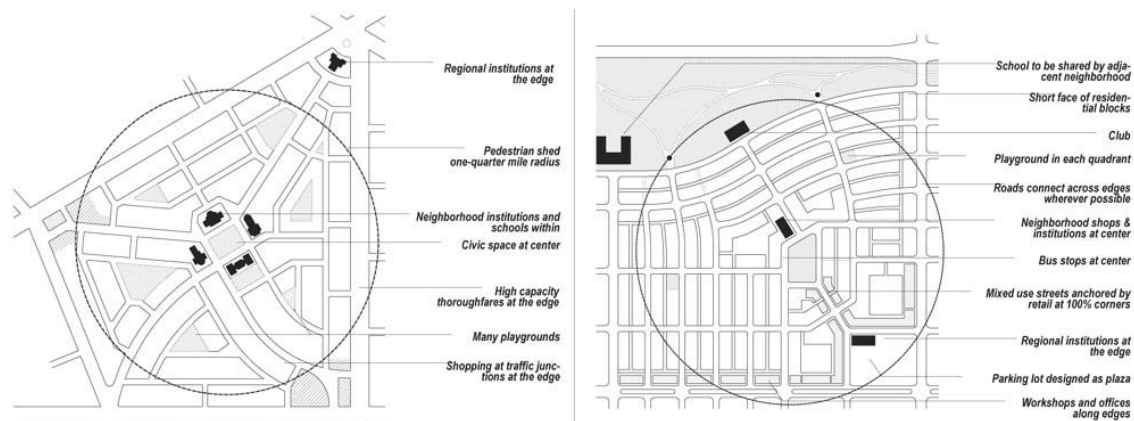
Figure 8.7: A second stage in thinking about neighborhood design moves further away from Perry's Neighborhood Unit concept while continuing to speak admiringly of it.

Differences between New Urbanism and Perry's Neighborhood Unit concept are more clear in the next stage of DPZ's thinking, published in the *Lexicon of New Urbanism* (Davis et.al. 2002). Initially DPZ was very explicit in making a new version of Perry's Neighborhood Unit concept. Here DPZ's ideas are expressed in their own guise. The eccentric shape of the neighborhood unit in Perry's diagram is absent. The re-insertion of a rectilinear street grid suggested in fig. 7.2 is more forceful. The community green is more closely attached to the commercial node in the corner of the neighborhood. And the school is removed completely from the neighborhood center, relegated to expansive green space abutting two adjacent neighborhoods (not unlike Town and Country Estates cited in the early fifties edition of the *Community Planners Handbook*). New Urbanists call attention to Perry's Neighborhood Unit concept, and speak

admiringly of it as if it is one of their own, but DPZ's principles for neighborhood development call attention to different qualities.

New Urbanism in this way mythologizes (Maines et.al. 2005) Perry's Neighborhood Unit concept, both validating it and ascribing it new meaning. This is important work, particularly for a nascent movement like the Congress for the New Urbanism in the mid-nineties. Building a history of predecessors like Perry roots New Urbanism in historical context, develops a set of heroic exemplars for CNU members to follow, and builds authority to skeptical partners and adversaries who might not otherwise have chosen to recognize the movement's merits.
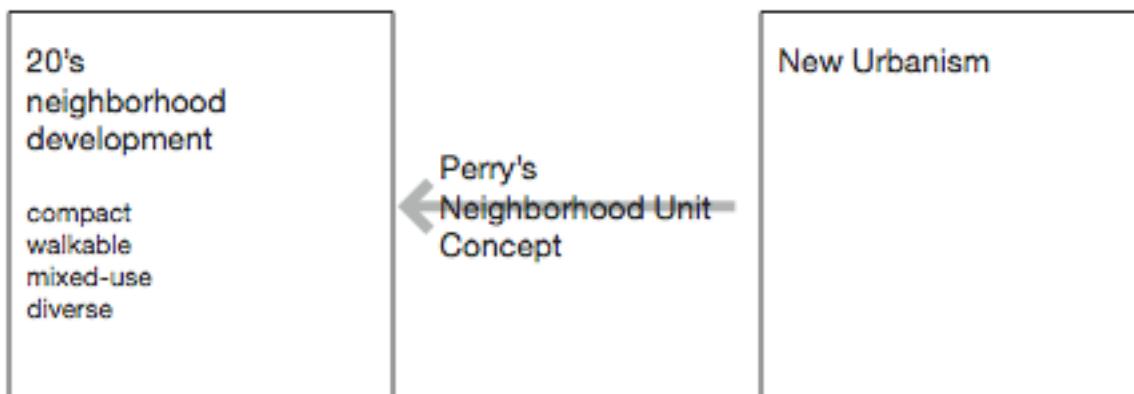
Figure 8.8: Predecessor selection in New Urbanism's use of Perry's Neighborhood Unit concept.

Perry's Neighborhood Unit concept acts as a particular kind of boundary object in this regard, bridging not across professional groups but across time to connect contemporary development practices with those of the twenties. In terms of tangible substantive elements DPZ have arguably drawn more from 1920's era development in general than they have from Perry's

Neighborhood Unit concept itself. This is certainly true of their use of a rectilinear street grid and of alleys.

Here as elsewhere though, substantive information is only one aspect of our pragmatic use of professional knowledge. We use professional knoweldge to set norms, to model activity, to catalyze change, and to build authority for ourselves as well.

8.5 Conclusion

In this dissertation, I have attempted to show how the Neighborhood Unit concept was perhaps the most important single idea in urban planning and design in America over the twentieth century. Perry's Neighborhood Unit concept provided the tangible model for shifting the scale of development from the single lot to the larger district, for comprehensive planning in distinct units, for including infrastructure concurrent with development, and for the establishment of controls and minimum development standards. It was a concept adopted by twenty separate professional and government organizations representing the full range of actors responsible for urban planning and development. Enthusiasm for the concept waned by the 1960s as organizations adapted the Neighborhood Unit to suit their own purposes. Nevertheless, use of the Neighborhood Unit concept continued unabated if dominished throughout the later part of the twentieth century until the Congress for the New Urbanism renewed interest in the concept, spurring its renaissance as a model for compact, walkable neighborhoods.

I will now turn to the research questions I presented at the beginning of this work, answering each in turn to explain the construction, use, and impact of Perry's Neighborhood Unit concept in professional contexts.

How does professional knowledge develop? That is, how are ideas posited, elaborated, tested and adopted in professional contexts?

I have argued that an important aspect of professional knowledge is that it is pragmatic – it is *localized* in particular tasks and problems, *embedded* in the know-how, methods, and technologies of actors, and *invested in practice* (Carlile 2002). Professional knowledge is not universal or essentialist; rather it is context-dependent. Each of the professional communities that adopted the Neighborhood Unit concept did so because it shed light on some particular aspect of professional activity. The Neighborhood Unit concept was particularly valuable because it became as a *lever of change*, representing a shift in the mode of operation amongst an interdependent group of actors.

What causes some concepts to become leading ideas?

How does the rhetorical form of professional knowledge affect its adoption and use?

The Neighborhood Unit concept became a leading idea not simply because it was important or well-developed but because it attained a *critical mass* of adopters such that each adopter increased the meaning and value of the concept for others. The inter- and trans-disciplinary reach of the Neighborhood Unit concept was particularly significant in this regard: the concept would still have had value if it simply communicated some urban planning or design ideas, but it would not have been as significant if it had not established principles shared amongst urban

planners, real estate developers, federal housing officials and other professional communities. This was particularly true in the thirties when a diverse coalition of actors was needed to enact a significant expansion of public planning powers.

The rhetorical form of the Neighborhood Unit concept was critical in successfully reaching a diverse audience. To operate as a *boundary object* the Neighborhood Unit concept had to strike the right balance between coherence and ambiguity. It needed to be loose enough to have a clear general meaning that was shared across professional communities and be adaptable to a range of detailed specific meanings developed within individual communities. The Neighborhood Unit concept acheived this by referring to a term – *neighborhood* – that had a rich but ambiguous everyday meaning and through its elaboration and communication through a number of diagrams, illustrations, and sets of principles.

What difference do leading ideas like the Neighborhood Unit concept make for the professional communities that adopt and sustain them?

The Neighborhood Unit concept made a difference by serving as an exemplar for a holistic set of theories, practices, problems, and tools. Its impact thus extended beyond the overt substantive content of the concept itself to represent a broader set of issues. At its most powerful, the Neighborhood Unit concept provided the guiding image for the land planning standards institutionalized by the Federal Housing Administration: it then came to represent the practices established by those standards as much as it did Perry's original ideas. More recently it has become a guiding image for a set of norms propogated by New Urbanists that assert that we

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should develop residential environments in a compact fashion with a mix of uses and attention paid to the public realm.

The Neighborhood Unit concept is thus a kind of *leading meme* that communicates a rich set of urban planning information to a diverse audience of professional actors. It is not static or universal. Rather, it addresses pragmatic changes in a broader practice environment, its significance evolving concurrently with the historic development of this broader environment. It retains its significance because it is structured in such a way that it is adaptable to different professional communities and is capable of being invested with new pragmatic meaning.

APPENDIX A: Google Scholar search for citations of the Neighborhood Unit concept:

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