Special Issue

Housing and Space:
Toward Socio-Spatial Inclusion

Editors

Dallas Rogers, Rae Dufty-Jones and Wendy Steele

COGITATIO

COGITATIO

Table of Contents

Editorial

Housing and Socio-Spatial Inclusion

Dallas Rogers [1,*], Rae Dufty-Jones [1] and Wendy Steele [2]

[1] School of Social Science and Psychology, University of Western Sydney, Parramatta, NSW 2150, Australia;
E-Mails: d.rogers@uws.edu.au (D.R.), r.dufty-jones@uws.edu.au (R.D.-J.)
[2] Global, Urban and Social Studies, RMIT University, Melbourne, Victoria 3000, Australia;
E-Mail: wendysteele@rmit.edu.au

* Corresponding author

Abstract

This special issue on housing and socio-spatial inclusion had its genesis in the 5th Housing Theory Symposium (HTS) on the theme of housing and space, held in Brisbane, Australia in 2013. In late 2013 we put out a call for papers in an attempt to collect an initial suite of theoretical and empirical scholarship on this theme. This collection of articles progresses our initial discussions about the theoretical implications of adding the "social" to the conceptual project of thinking through housing and space. We hope that this special issue will act as a springboard for a critical review of housing theory, which could locate housing at the centre of a much broader network of social and cultural practices across different temporal trajectories and spatial scales. This editorial presents an overview of the theoretical discussions at the HTS and summarises the six articles in this themed issue, which are: (1) The meaning of home in home birth experiences; (2) Reconceptualizing the "publicness" of public housing; (3) The provision of visitable housing in Australia; (4) The self-production of dwellings made by the Brazilian new middle class; (5) Innovative housing models and the struggle against social exclusion in cities; and (6) A theoretical and an empirical analysis of "poverty suburbanization".

1. Housing and Space: Reflections from the 5th Housing Theory Symposium

This special issue on housing and socio-spatial inclusion had its genesis in the 5th Housing Theory Symposium (HTS) on the theme of housing and space, held in Brisbane, Australia in 2013. Some of the highlights of the 5th HTS include Stephen Graham's keynote address on the verticality of cities and urban space. Graham's (2014) provocative inclusion of a vertical politics of space, as both a compliment to and challenge against a horizontal socio-spatial-centrism in studies of urbanity, provides a fitting contextual frame for this special issue. Graham's contribution forces us to rethink horizontal theories of urban space by shifting the conceptual axis of the Cartesian coordinate system from the *x* to the *y*—from a flat urban ontology of city landscapes towards a three dimensional politics of high-rise urban space and the "aerial view". His critique of horizontal mapping and planning was both timely and significant (Graham, 2014). The increasing verticality of cities requires us to reconceptualise urban space as a dialectical vertical-horizontal spatial practice. To question where the new class lines might be drawn within vertical cities at the level of the individual, or to inquire about the structural implications of the three dimensional city, are but only two of a

whole set of emergent research questions and theoretical tasks. How should we theorise the stairs leading down into underground basement housing in Beijing (Schindler, 2014), or the lifts up into gated penthouse apartments in Latin American cities (Borsdorf & Hidalgo, 2008) within the vertical politics of urban space? These are questions still to be explored, but we know that these vertical spatial practices will increasingly demarcate and locate people and places in new ways.

Following from Graham's city-level contextual reframing of urban space, the second keynote address by Robyn Dowling turned to the scale of the home. Drawing on international collaborative work with Harriet Bulkeley (Durham University) and Pauline McGuirk (Newcastle University) the focus was on housing and home interventions in Carbon Reduction Projects. Their emphasis is on the need to reconceptualise houses and households as central to critical interrogations of, and responses to, climate change. Collectively their work develops deeper understandings of housing, domestic spaces and governance through: i) an investigation of how house and home are becoming governmental sites in the project of carbon reduction; and ii) how related governance interventions are reshaping notions of home and homemaking identities. With an emphasis on two Sydney-based interventions—the City of Sydney's Smart Green Apartments and the Smart Grid Smart City retail trial—Dowling et al. seek to contribute to a better understanding of the home-making subject as a key site in/though which the "conduct of carbon conduct" is governed (Dowling, McGuirk, & Bulkeley, 2014; McGuirk, Bulkeley, & Dowling, 2014).

Building on the spatial focus of housing and home, Wendy Steele and Cathy Keys explored the interstitial *spaces between spaces* and focused their analysis on the liminal spaces within the home. Steele and Keys explored the use of the interstitial spaces within the build form of the home as an important place to store familial objects. They used the iconic Australian "Queenslander" housing type as a case study. The Queenslander typically consists of a low-set timber house with wrap-around verandas and an elevated underfloor supported by long supporting timbers beams stretching down to the ground. Steele and Keys used the interstitial spaces underneath the Queenslander to theorise these in-between spaces as an important part of the Australian psyche. They contrast the placement of important family objects into the interstitial spaces of the Queenslander with the older practice of Indigenous Australians, where the small space between the bed and the wall of a temporary natural shelter is used to store personal belongings in an otherwise collectivist culture of shared belongings. The spaces between spaces within the home represent an important site for investigating the intersection and perhaps clash of individual and collective identities (Steele and Keys 2015).

Lucy Groenhart conducted—what we would call—a genealogy of housing theory. Groenhart provided a history of housing theory from 1945 through to the early 21st century. The implication of Groenhart's work (although this might not have been Groenhart's aim) is that a genealogy of housing theory can demonstrate the very limits of our historical knowledge about housing practices and systems. That is, we build housing histories by drawing on, and through, the theories, analyses and reporting that is popular or available at particular points in time. But how do we account for the housing theories that are not popular or available? We think this type of questioning disrupts the idea that we can create a reliable history of housing theory and practice in the present and is worthy of further exploration. Keeping with this structural and historical focus, IIan Wiesel tracked the politics of deinstitutionalisation and housing to showcase how the shifting policy frameworks in Australia were underwritten by discourses of "normalisation" to "choice" (Wiesel & Bigby, 2015).

Dallas Rogers (2013), Jacqueline Nelson (2013) and Rae Dufty-Jones (2012) brought their housing and racism scholarship into conversation to examine the desire to protect a social, cultural or geographical space from the other as a process of place-defending (Nelson, 2014). They showed that place defending includes, but is certainly not limited to: physical and emotional violence against minority groups that are constructed as invading a majority group's space (Nelson, 2013; Poynting, 2006); local political and discursive resistance toward providing (Davison et al., 2013) or removing (Rogers & Darcy, 2014) affordable housing projects; national political and discursive resistance to acknowledging the claims of asylum seekers (Magner, 2004); monitoring and policing gendered or radicalized spatial practice (Amin, 2012); sensory conflicts, such as cooking smells or cultural music performances, within urban spaces (Wise, 2010); and housing morphologies within urban areas whereby an imagined other threatens to invade a space through their occupation of newly constructed housing projects (Rogers, 2014).

The 5th HTS concluded with six PhD papers and a PhD panel discussion. Ying-ying Li deployed Heidegger (1927) to theorise place attachment and earthquake reconstruction in China. Marta Botta used futurology theories and the work of Sohail Inayatullah (1998) to present a revolutionary and somewhat utopian call for a structural overhaul of the capitalist housing system. Along with Gordon Bijen (Bijen & Piracha, 2012), Anne-Sophie Lotti followed her French compatriot Henri Lefebvre (1968) to deploy the Right to the City as a tool for a radical rethinking of housing politics and space. Finally, Angela Ballard tapped into the work of Paulo Freire (1970) to pitch the neologism "autoethnica".

2. Contributions to This Special Issue: Housing and Socio-Spatial Inclusion

At the conclusion of the 2013 HTS one key theme clear-

ly emerged in the concluding summation—the question of the relationships between housing, social and spatial theory and practice. This special issue on housing and socio-spatial inclusion developed from our initial discussions about the implication of adding the "social" to the conceptual project of thinking through housing and space. In late 2013 we put out a call for papers in an attempt to collect an initial suite of theoretical and empirical scholarship on this theme. We hope that this special issue will act as a springboard for a critical review of housing theory, which could locate housing at the centre of a much broader network of social and cultural practices across different temporal trajectories and spatial scales. This special issue presents six articles on related themes: (1) The meaning of home in home birth experiences; (2) Reconceptualizing the "publicness" of public housing; (3) The provision of visitable housing in Australia; (4) The self-production of dwellings made by the Brazilian new middle class; (5) Innovative housing models and the struggle against social exclusion in cities; and (6) A theoretical and an empirical analysis of "poverty suburbanization".

Emily Burns' article, entitled *More than four walls: The meaning of home in home birth experience*, is an ambitious contribution covering the disciplines of medicine, health, sociology and midwifery. It outlines a fascinating case study of home birthing to showcase the tensions between home and hospital birth. It recasts the often-discussed "hospital versus home" birthing debate by locating the subjective and embodied home at the centre of women's childbirth experience and decision-making process. The qualitative study draws on 58 interviews with home birthing women in Australia. Burns argues that "Home, for the participants in this study, is a dynamic, changing, and even spiritual element in the childbirth experience, and not simply the building in which [child birthing] occurs" (2015, p. 6). In Burns' discussion the home is drawn into theoretical debates about safety, risk, agency and the medicalization of birthing. The home, for many of the women in this study, is a place to contest the actors that seek to control women's maternal and neonatal health.

Nele Aernouts and Michael Ryckewaert's article, entitled *Reconceptualizing the "publicness" of public housing: The case of Brussels*, is a theoretical examination of the way in which conceptual linkages between housing and notions of the "public" are made and unmade. They deploy a complex suite of housing, spatial and political theory, covering Habermans, Arendt, Marcuse, Arnstein, Kemeny and Forrest to name a few. They locate their analysis in various notions of "the commons" and focus in particular on what is "public" about public housing in Brussels. The historical analysis covers a set of different public housing models. The comparative analysis is based on a set of criteria that the authors extract from commons theory. They conclude their article by positing four core dimensions that

underwrite their model: ownership, co-production, community activity and physical configuration.

Margaret Ward and Jill Franz's article, entitled *The provision of visitable housing in Australia: Down to the detail,* takes the discussion about socio-spatial inclusion into the regulatory spaces of the Australian government. They draw on the United Nations Convention of the Rights of People with Disabilities (CRPD) and explore the challenges of a voluntary (versus a regulated) adaptable housing design framework in Australia. Using the Livable Housing Design agreement and a case study of eleven newly-constructed dwellings in three housing contexts in Brisbane, Australia, they argue that a system whereby the various housing industries voluntarily adopt a set of national guidelines "is unrealistic and that mandatory regulation will be necessary for any lasting transformation to occur" (2015, p. 31).

Priscilla Nogueira's article, entitled *Battlers and their homes: About self-production of dwellings made by the Brazilian new middle class*, takes the discussion about socio-spatial inclusion to Brazil. It covers the emergence of the new middle class and the resultant socio-spatial reorganisation of neighbourhoods by various actors. Nogueira interrogates questions relating to the different knowledges that underwrite urban planning, the various building and construction techniques used by different actors and the socio-economic disparities relating to government policy and housing provision. At the centre of this critique is a question that is common to nation-states with rapid economic grown and large numbers of people still living in poverty; and that is, will the socio-economic benefits of urban and economic growth flow down to the poorest citizens?

Picking up on a common theme running through all the articles in this special issue, Naomi Hay and Petra Simona Perolini approach the question of socio-spatial inclusion and housing from the opposite direction. Their article, entitled *The role innovative housing models play in the struggle against social exclusion in cities: The Brisbane common ground model*, presents a case of (in their words) socio-spatial exclusion. Drawing on the scholarship of Mumford to Lefebvre, they start with a critique of Australia's private property driven home ownership market and link this analysis to Australia's "housing affordability crisis". Using Henri Lefebvre's notion of A Right to the City, they argue that housing discrimination is a structural rather than an individual problem. They set out their claims with an empirical case study of the Common Ground approach in Brisbane, Australia.

The final article continues with the socio-spatial exclusion theme by expanding the analysis to the level of "the urban". Entitled *Poverty suburbanization: Theoretical insights and empirical analyses*, Kenya L. Covington presents an all too common picture of increasing urban poverty in the US. Covington (2015) identifies a set of structural factors that could be associated with the

suburbanization of the poor and argues that poverty suburbanization has accelerated over the last decade. Covington concludes by highlighting a common barrier to urban change, that "there are powerful forces including political, economic and social that aid particular individuals, and organizations in shaping the urban landscape in ways that continue to work in their favour" (p. 87).

Acknowledgements

Conflict of Interests

The authors declare no conflict of interests.

References

Aernouts, N., & Ryckewaert, M. (2015). Reconceptualizing the "publicness" of public housing: The case of Brussels. *Social Inclusion*, 3(2), 17-30.

Amin, A. (2012). *Land of strangers*. Cambridge: Polity.

Bijen, G., & Piracha, A. (2012). Evaluating the urban design and community life in public housing in Australia. *Australian Planner, 49*(4), 349-360. doi:10.1080/07293682.2012.678872

Borsdorf, A., & Hidalgo, R. (2008). New dimensions of social exclusion in Latin America: From gated communities to gated cities, the case of Santiago de Chile. *Land Use Policy, 25*(2), 153-160. doi:http://dx.doi.org/10.1016/j.landusepol.2007.04.001

Burns, E. (2015). More than four walls: The meaning of home in home birth experience. *Social Inclusion*, 3(2), 6-16.

Covington, K. L. (2015). Poverty suburbanization: Theoretical insights and empirical analyses. *Social Inclusion*, 3(2), 71-90.

Davison, G., Legacy, C., Lui, E., Han, H., Phibbs, P., van de Nouwelant, R., Darcy M., & Piracha, A., (2013). *Understanding and addressing community opposition to affordable housing development* (Research Report). Melbourne: Australian Housing and Urban Research Institute. Retrieved from http://www.ahuri.edu.au/publications/projects/p71007

Dowling, R., McGuirk, P. M., & Bulkeley, H. (2014). Retrofitting cities: Local governance in Sydney, Australia. *Cities, 38*, 18-24.

Dufty-Jones, R. (2012). Moving home: Theorizing housing within a politics of mobility. *Housing, Theory and Society, 29*(2), 207-222. doi:10.1080/14036096.2011.641262

Freire, P. (1970). *Pedagogy of the Oppressed*. New York: Herder and Herder

Graham, S. (2014). Super-tall and Ultra-deep: The cultural politics of the elevator. *Theory, Culture & Society, 31*(7-8), 239-265. doi:10.1177/0263276414554044

Hay, N., & Simona, P. (2015). The role innovative housing models play in the struggle against social exclusion in cities: The Brisbane common ground model. *Social Inclusion*, 3(2), 62-70.

Heidegger, M. (1927). *Being and time* (1 ed.). Oxford: Blackwell Publishing.

Inayatullah, S. (1998). Causal layered analysis: Poststructuralism as method. *Futures, 30*(8), 815-829. doi:http://dx.doi.org/10.1016/S0016-3287(98)00086-X

Lefebvre, H. (1968). *The right to the city.* Paris: Anthropos.

Magner, T. (2004). A Less than "pacific" solution for asylum seekers in Australia. *International Journal of Refugee Law, 16*(1), 53-90. doi:10.1093/ijrl/16.1.53

McGuirk, P., Bulkeley, H., & Dowling, R. (2014). Practices, programs and projects of urban carbon governance: Perspectives from the Australian city, *Geoforum, 52, 137-147.*

Nelson, J. K. (2013). Denial of racism and its implications for local action. *Discourse & Society, 24*(1), 89-109. doi:10.1177/0957926512463635

Nelson, J. K. (2014). Place defending and local anti-racism. *Australia Journal of Social Issues, 49*(1), 67-85.

Nogueira, P. (2015). Battlers and their homes: About self-production of dwellings made by the Brazilian new middle class. *Social Inclusion*, 3(2), 44-61.

Poynting, S. (2006). What caused the Cronulla riot? *Race and Class, 48*(85), 85-92.

Rogers, D. (2013). The Poetics of cartography and habitation: Home as a repository of memories. *Housing, Theory and Society*, 30(3),1-19. doi:10.1080/14036096.2013.797019

Rogers, D. (2014). The Sydney Metropolitan Strategy as a zoning technology: Analyzing the spatial and temporal dimensions of obsolescence. *Environment and Planning D: Society and Space*. 32(1), 108-127.

Rogers, D., & Darcy, M. (2014). Global city aspirations, graduated citizenship and public housing: Analysing the consumer citizenships of neoliberalism. *Urban, Planning and Transport Research*, 2(1), 1-17. doi:10.1080/21650020.2014.906906

Schindler, S. (2014). Understanding urban processes in flint, michigan: Approaching "subaltern urbanism" inductively. *International Journal of Urban and Regional Research, 38*(3), 791-804. doi:10.1111/1468-2427.12082

Steele, W., & Keys, C. (2015). Interstitial space and everyday housing practices. *Housing, Theory and Society*, 32(1), 112-125.

Ward, M., & Franz, J. (2015). The provision of visitable housing in Australia: Down to the detail. *Social Inclusion*, *3*(2), 31-43.

Wiesel, I., & Bigby, C. (2015). Movement on shifting sands: Deinstitutionalisation and people with intellectual disability in Australia, 1974–2014.

Urban Policy and Research, (ifirst), 1-17. doi:10.1080/08111146.2014.980902

Wise, A. (2010). Sensuous multiculturalism: Emotional landscapes of inter-ethnic living in Australian suburbia. *Journal of Ethnic and Migration Studies, 36*(6), 917-937.

About the Authors

Dr. Dallas Rogers
Dallas Rogers is a Lecturer in Urban Studies at the University of Western Sydney. Dallas is an urban geographer investigating the relationships between urban space, discourse networks, housing actors, poverty and wealth. He has undertaken a critical analysis of Australian urbanism through fine-grained empirical research with low-income public housing tenants as well as super-rich transnational property investors and their agents. His current research focus is on a relational examination of housing poverty and wealth in globalising cities.

Dr. Rae Dufty-Jones
Rae Dufty-Jones is a Senior Lecturer in Geography and Urban Studies at the University of Western Sydney. Rae is an economic and social geographer who researches mobility, housing, neoliberal governance and urban and regional development. Her current research projects include: "Mobility aspirations of tenants listing on the 'Our House Swap' website" and the "Werrington Park Corporate Centre Monitoring and Evaluation".

Dr. Wendy Steele
Wendy Steele is an Associate Professor and Australian Research Council (DECRA) Fellow in the Centre for Urban Research at RMIT University, Melbourne. Her research focuses on urban climate justice and rethinking critical urban infrastructure (including housing) in a climate of change.

Article

More Than Four Walls: The Meaning of Home in Home Birth Experiences

Emily Burns

Religion and Society Research Centre, School of Social Sciences and Psychology, University of Western Sydney, Penrith, NSW 2750, Australia; E-Mail: emily.burns@uws.edu.au

Abstract

The "home versus hospital" as places of birth debate has had a long and at times vicious history. From academic literature to media coverage, the two have often been pitted against each other not only as opposing physical spaces, but also as opposing ideologies of birth. The hospital has been heavily critiqued as a site of childbirth since the 1960s, with particular focus on childbirth and medicalisation. The focus of much of the hospital and home birthing research exists on a continuum of medicalisation, safety, risk, agency, and maternal and neonatal health and wellbeing. While the hospital birthing space has been interrogated, a critique of home birthing space has remained largely absent from the social sciences. The research presented in this article unpacks the complex relationship between home birthing women and the spaces in which they birth. Using qualitative data collected with 59 home birthing women in Australia in 2010, between childbearing and the home should not be considered as merely an alternative to hospital births, but rather as an experience that completely renegotiates the home space. Home, for the participants in this study, is a dynamic, changing, and even spiritual element in the childbirth experience, and not simply the building in which it occurs.

Issue

This article is part of the special issue "Housing and Space: Toward Socio-Spatial Inclusion", edited by Dr. Dallas Rogers (University of Western Sydney, Australia), Dr. Rae Dufty-Jones (University of Western Sydney, Australia) and Dr. Wendy Steele (RMIT University, Australia).

1. Introduction

In popular and medical childbirth discourse the home is not only constructed as "other" than the hospital (Homer et al., 2014), but also as the place of risk as opposed to safety (Lane, 1995; Possamaï-Inesedy, 2006). While much of the research on home birth focuses on why women choose to birth at home (Catling, Dahlen, & Homer, 2014; Moore, 2011), this article demonstrates that their experiences can tell us much about the negotiation of power and the management of bodies within the spaces that home birthing is performed. Indeed, the medicalisation of childbirth is now a well-known and widely used concept in disciplines and sub-disciplines from sociology, anthropology, women's

studies, midwifery and nursing. The medicalisation thesis has become so dominant that its importance has overshadowed the need to be equally as rigorous in analyses of the dynamics at play in home birthing space.

Most commonly, the home is conceptually understood within domestic or "ordinary" living space. In the birth literature, it is often regarded as the "backdrop" in which birth takes place, though there are some notable exceptions to this (Fannin, 2003; Michie, 1998). Indeed for Putnam (1999), when a new mode of living is mapped onto a house or a new house mapped onto an existing mode of living, the meaning of domestic space is redefined. In this light, what we know about the home, and about women's relationships with the

home, will undoubtedly be entirely different from what we need to know about the home when remapped for childbirth, and the impact this experience has on the home and the birthing woman and her family thereafter.

That the focus of the home/hospital debate is centralised around place, and the spatial differentiation between the two, indicate clearly not only the pragmatic differences between the two sites as birth places, but the ideological distance that can so easily be epitomised by two discursively oppositional terms. The home and the hospital have become polar opposites in the discourse on childbirth (Powell Kennedy, Nardini, McLeod-Waldo, & Ennis, 2009; Reibel, 2004).

Cresswell (1996) writes about the construction of ideologies, the most important ingredient of which, he argues, is the differentiation by place (p. 153). This is clearly evident in the home/hospital birth dichotomy, primarily because the hospital is what Cresswell (via Bourdieu) refers to as "doxa", meaning it has become part of everyday common sense rather than critical decision making. At the opposite end, then, home is specifically differentiated as "abnormal", and the spatial differentiation comes to personify this oppositional relationship, signifying ideological differences as well, specifically through the focus of safety and risk, which both sides of the debate used to defend their position (Michie, 1998).

This article will move beyond notions of safety and risk, and present findings on home that focus on the intimate and complex ways the home is reimagined in home birth experiences. I argue here that the home is far from merely the backdrop of childbirth, nor is it a site that simply opposes medical intervention. The role and importance of place attachment and the new meanings and boundaries that home birth instigates renegotiates the way birthing women relate to their homes and in turn, their births.

2. Background

Because reproduction is said to form the nexus of nature and society, the way a culture handles birth is strongly indicative of its core values (Blaaka & Shauer, 2008; Davis-Floyd, 1993/2008; Rapp, 2001). Davis-Floyd (1994) sees these values played out in the ritualistic procedures of birth, particularly in hospital settings. The hospital has been heavily critiqued as a site of childbirth since the 1960s, and scholars have primarily drawn on medicalisation as the framework for interrogation. Medicalisation can be defined here as,

> the expansion of medical jurisdiction into the realms of other previously non-medically defined problems…a process which clearly serves the interests of medicine with its increasing focus on the indicators of disease rather than the individual's experience of health and illness (Cahill, 2001, p. 339).

It is important to note however, that in the context of childbirth not all medicalised experiences are necessarily negative ones, however the assumption of control by medicine results in an implicit hand-over of bodily agency, which in turn can lead to disempowerment (Cahill, 2001; Davis-Floyd, 1993/2008; Williams & Umberson, 1999). The biomedical preference for understanding women ignores the inescapable psychosocial elements of birth (Mansfield, 2008), and the important transition to motherhood (Cahill, 2001). The dominance of medicine has resulted in a feminist response to the configuration of the contemporary childbirth model as a paradigm of power and control. This paradigm positions pregnant and birthing women at one end of this continuum and male dominated institutions (hospitals) and professions (medicine) at the other. One of the primary ways this is achieved is via authoritative knowledge. For any particular domain, writes Jordan (1997), several knowledge systems exist. Some of these knowledge systems come to carry more weight than others, "…either because they explain the state of the world better for the purposes at hand…or because they are associated with a stronger power base" (Jordan, 1997, p. 56) and usually both.

Power is a direct result of systems of authoritative knowledge, with medical professionals automatically having more power and control than patients and birthing women, simply because they hold medical knowledge (Crossley, 2007), and because medical knowledge is so highly valued in Western countries (Foucault, 1989/ 2003). Technology goes hand in hand with medicine in this regard, for in the hands of medical professionals, technology—and the authority to use it—is an extension of their power (Suchman & Jordan, 1997).

One of the ways a birth in the biomedical system is categorised from the early stages of pregnancy is in terms of risk. "Risk" is not a neutral term, and assumes the body is always on the brink of failure irrespective of circumstances, and almost always includes negative consequences for women (Lane, 1995, p. 57). The authoritative knowledge of the medical model of childbirth means that "normal" is defined in medical terms, and is often only used in retrospect, thus making every pregnancy "at risk" until after the birth (Skinner, 2002). The routine assignment of risk to pregnant women occurs without taking into account structural and social conditions, which individualises the risks, and in turn legitimises the routine of interventions (Lane, 1995, p. 55). This has seen the routine use of interventions like induction and foetal monitoring, which has done little to improve the outcome of "high-risk deliveries", and that some say can only be explained by the practice of defensive medicine (Cahill, 2001; Davis-Floyd, 1993/2008; Skinner, 2002). More recently however, the medical model of hospital birth has increasingly included the recommendation of doulas (birth attendants), and complementary and alternative medicine in

pregnancy and labour (Harding & Foureur, 2009; Hastings-Tolsma & Terada, 2009; Wiebelitz, Weyert, & Beer, 2009), expanding the medicalised model to incorporate a variety of practices that might contribute to a more positive birth experience.

There is an obvious dichotomy set up in the childbirth literature between "medicalised" and "natural" definitions of childbirth. These two concepts however, rely on each other in a birthing context. What counts as medicalised depends on which elements of nature are being dominated, and similarly what counts as natural depends on what elements of medicine are excluded. A common understanding of "natural" is a birth without technological intervention, including spontaneous labour without anaesthesia, and a vaginal delivery. Crossley (2007) extends this definition, seeing "natural" birth as a subjective re-enactment of nature, which produces a physiological rather than pathological experience. Discursively there has been a move toward using terms such a physiological birth and normal birth, rather than natural birth (Downe, 2004).

There is an increasing body of literature that focuses on childbearing and broader issues of space and place, rather than with a focus on medicalisation. Hospitals and birth have been critiqued in relation to geographical (Abel & Kearns, 1991), spatial (Fannin, 2003; Michie, 1998; Seibold, Licqurish, Rolls, & Hopkins, 2010), and design (Foureur et al., 2010) frameworks as well. The focus for much of the research on homebirth is focused on the importance of issue such as gaining autonomy by birthing outside of the medical system (Dahlen, Barclay, & Homer, 2008; Edwards, 2005; Jackson, Dahlen, & Schmied, 2012; Nolan, 2011). Perhaps one reason for this is the high representation of midwifery scholarship in home birth research.

In Australia, home births can be achieved in three distinct ways. Firstly, a pregnant woman may birth unassisted, that is, without the assistance of a midwife or obstetrician, or any childbirth professional. This is referred to as unassisted childbirth (UC), or free birth. Secondly, she may hire an independent midwife, for a fee of between AUD$3000 and AUD$5000. This midwife will usually oversee all antenatal care, will attend the birth and provide postnatal care as well. Thirdly, depending on the geographical location of the pregnant woman, she may be eligible to participate in a hospital home birth program. These programs typically operate via a "case-load" model, where two or more midwifes are assigned women to oversee their care from initial enrolment into the program, antenatal care, childbirth in the woman's home, and postnatal care. The antenatal care takes place in the hospital, and the assigned midwives attend the birth in the woman's home. These programs are government funded, and have strict eligibility guidelines (see Catling-Paull, Foureur, & Homer, 2012), which the pregnant/birthing woman must comply with or her

participation in the program will be cancelled. These programs are relatively new in Australia, the first being established in Perth, Western Australia in 1996, but most since 2005 (Catling-Paull, Coddington, Foureur, & Homer, 2013). These programs are becoming increasingly popular, with 12 hospitals nation-wide offering publicly funded programs (Catling-Paull et al., 2013). While the efficacy of such programs is beyond the scope of this article, the research on these programs offers compelling evidence of their success (Catling et al., 2014; Catling-Paull et al., 2012; McMurtrie et al., 2009).

The safety of home birth for low risk women has been long-established, and has been used as the primary rationale for the implementation of publicly funded hospital home birth programs in Australia (Catling et al., 2014; Catling-Paull et al., 2012). While research on the experience, impact, and importance of space when it comes to childbirth is growing, the focus remains primarily on hospital space (Fannin, 2003; Foureur et al., 2010; Hammond, Foureur, Homer, & Davis, 2013; Smyth, Payne, Wilson, & Wynyard, 2013).

For the Australian women I interviewed, having a birth in the home necessitated an at least temporary reshaping of the meaning of home. The existing ways the home was used by those living within it, and those visiting, needed readjusting to allow for the changes a home birth would instigate. These changes were as temporal as pregnancy and childbirth, but were important to creating balance for the participants. The home for home birthing women is indeed a physical place in which they live, but it also becomes a space that embodies various imaginings, and becomes intimately connected to the experience of pregnancy and childbirth.

For childbirth, part of what defines the home is its ideological distance from the hospital, meaning the hospital is a necessary component in the discussion of the home in home birth. There also needs to be caution when conceptualising the home, so as to not represent it as an entirely positive place or experience, as some of the participant narratives in this paper will show. Recent conceptions of home go beyond the configuration of a physical, spatial entity and into more of "…an idea and an imaginary that is imbued with feelings" (Blunt & Dowling, 2006, p. 2). The imaginary in question includes a nostalgia for the past (Chapman & Hockey, 1999), our expectations of the present, and our dreams (and fears) for the future (Blunt & Varley, 2004).

Significantly, there are a myriad of ways in which being "at home" could be alienating. The geographical literature on home is right to criticise definitions that rely on notions of sanctuary, security, and safety. For many people home is not, as they say, "where the heart is", but a place of alienation, discomfort or violence. Home, therefore, requires a contextually based definition, one that works for specific situations and groups of people with whom that definition may be

relevant. The home as a place of birth may only seem relevant to a small group of families who can afford it and for whom this is their reality, but it is nonetheless an important way to indicate the ways in which definitions and pre-existing ideas of home may be reshaped depending on the context.

While the home would ordinarily be considered a private sphere of social life, the influence of public life is keenly felt at home. Since the nineteenth century, the home afforded the possibility of retreat from public view, despite it not, in practice, being a place escaping the public gaze (Chapman & Hockey, 1999, p. 10). Blunt and Dowling (2006) write that the home is best understood "…as a site of intersecting spheres, constituted through both public and private" (p. 18). In the case of home birth, public discourse, which includes legislation regarding midwifery and home birth, heavily impacts the experiences of childbirth in the home. The public realm of policy seeps into the intimate spaces of the home, producing a home that has become politically, socially and even morally contentious and very, very public.

The emergence of publicly funded home birth programs, and a continuing critique of medical knowledge is indicative of Giddens' (1991) assertion that in high-modernity multiple discourses compete for authority. The very fact that these knowledge sets compete at all is only possible in contexts where each set is considered equally ideologically valid. As such, it is not just home birth consumers questioning the authority of medical discourse and birth choices, but hospitals are increasingly encouraging and facilitating the use of more holistic birth approaches.

3. Methods

The data presented here forms part of a larger study on spirituality and home birth experiences. The themes presented here are from a small cohort of participants who spoke about their homes in their narratives as key sites of renegotiation. While the number of participants presented here is small compared to the number of women interviewed for the larger study, they speak directly about the gap in the empirical knowledge base outlined above, namely; space and the role home spaces play on pregnancy and birth experiences.

Participants were recruited via online parenting forums, where the author contacted the administrator with information about the research, and asked permission to write a post in an appropriate thread to recruit participants. This post included information about the research, eligibility criteria, what participating would involve, and the author's contact details. Eligible participants would be both currently pregnant and planning a home birth, or would have had home births in Australia in the last three years, or be a practicing doula or independent midwife. Snowball sampling also

occurred as a result of these posts, and within a period of 30 days over 200 eligible participants from around the country had contacted the author. While most of the participants lived within three hours of a capital city, it was decided for reasons of time and travel convenience that participants in QLD and VIC would be relatively central to Brisbane and Melbourne, while Sydney, where the author resides, was more spread out, and as a result there were participants from the Blue Mountains, the Illawarra, and various suburban Sydney areas. The number of eligible participants who lived in these areas and were available for face-to-face interviews on the travel dates arranged totalled 58.

In-depth interviews took place in 2010, and participants were asked narrative-style questions, including "can you tell me about the day you found out you were pregnant" and "can you tell me your birth story?" Interviews were recorded and transcribed, and coded initially for thematic results and then for a more detailed discourse analysis (Tonkiss, 2004). All names in this paper appear as pseudonyms. I interviewed all but four women in their homes, and for the other four one was in a local café, and three others were in the homes of their friends, also participating in the study.

Of the 58 women who participated in this study, 51 were pregnant and planning or had had a home birth in the last three years. The other 7 were professional doulas and independent midwives. Of the 51 home birthing women, 41 had had previous hospital births, and of those hospital births, 5 were caesarean births. The participant demography in this study is reflective of those found in other western countries, including the United States (Klassen, 2001), Sweden (Anthony, Buitendijk, Offerhaus, van Dommelen, & van der Pal-de Bruin, 2005), and New Zealand (Abel & Kearns, 1991). The participants could be described as predominantly middle-class, self-identified as Caucasian Australians, many were tertiary educated, all had access to the Internet and were widely read when it came to childbirth literature. Below are tables (Tables 1–4) indicating age, household income, education, and religion.

White women occupy a privileged position in birthing culture, and it is within this privileged position that Australian birthing discourse rests. The voices of this research are also predominantly white, though the value of this research has implications for childbearing more broadly. By better understanding the complexity of the experiences of home birth, broader childbirth discourse can begin to expand and take into account the myriad of peripheral experiences.

The aim of this study is not to provide generalised results or findings, but rather to move the theoretical debate beyond the home/hospital dichotomy. Further studies could expand the sample size to address the lack of ethnic and cultural diversity of participants in this study.

Table 1. Participant age range.

Age Range	Number
18-25	3
26-35	28
36-45	19
46-55	1
55+	1
No Response	7
Total	59

Table 2. Completed education level.

Education	Number
Some High School	1
High School	11
Undergraduate	19
Post-Graduate	6
Vocational Training	12
No Response	10
Total	59

Table 3. Total household income.

Household Income	Number
under 25k	3
25-39	2
40-49	2
50-74	15
75-99	11
100+	13
No Response	13
Total	59

Table 4. Self-identified religious affiliation.

Religion	Number
No religion	29
Christian	10
Catholic	3
Spiritual	5
Ba'hai	1
Buddhist	1
Mormon	1
Pagan	1
No response	8
Total	59

4. Findings

During the data collection and early analysis phase of the research, it became clear that, as previously discussed, the home is a taken-for-granted concept in home birth research. For most of the participants, home was spoken of as a relatively stable concept, however in a small number of narratives there was a clear renegotiation of the experience of home as a result of pregnancy and birth, and it is on those narratives this paper is based. This is not to generalise the experience of home, but rather to illustrate the more conceptual issue of the importance of space and place to childbearing beyond the experience of hospital space.

The central themes of place and space, and the experience of boundaries were common themes in the interview data. I have chosen only 5 of the 58 narratives for this paper, and have done so on the basis of the rich description they provide about the relationship between home and childbirth. The participants spoke as passionately about home birth as a choice as they did about their homes in relation to their births. Invariably, every woman I spoke with discussed the decision to birth at home, and while these decisions were so subjectively distinct, they involved issues like previous birth experiences, friends' birth experiences, what they had read, online data and statistics about childbirth, and issues of cost and practicality. The central issue among the many discussed was always whether home was *right.* The importance of place in this decision was particularly strong, especially during the early, decision-making phase of planning a home birth. Secondly, the comparison between home and hospital environments were often discussed by women who had had previous births in hospitals, however it was the need for, and implementation of, previously un-required boundaries in and around the home that was a key concern leading up to the birth. Spaces that had not previously required monitoring suddenly needed rules, and those in their lives who had not previously had restricted access to their homes, were given, and expected to respect, new boundaries. Home spaces took on sacred significance within the home, heightening the intensity of feeling for previously usual living space.

4.1 Place and Space

Having a home birth is not as simple as birthing "at home". Place is of the utmost importance in the decision to birth at home. Where women reside at the time of their pregnancies can often be reason enough *not* to have a home birth. Birthing at home should be seen as part of a broader social and cultural movement in Australia toward sustainability and environmental awareness, culminating toward a general consensus that the more natural something is, the less mass produced, the more local, the better it is.

As the below narratives will indicate, the decision to birth at home includes considerations of the home space and ones connection to it. Where that connection is strong, the decision seems easy, but when it is not, it is fraught.

Rachel was pregnant with her second child when we met. Originally from New Zealand, Rachel and her

husband were both living in Australia while they pursued tertiary studies. Rachel had her first child in a public hospital in Canberra, ACT, not long after moving to Australia. Now living in Western Sydney, Rachel was planning a home birth through a publicly funded local hospital program. When telling me about the decision to use this program, she said:

> if we could afford to have an independent midwife I would have gone that way from the beginning. So yeah that was why we ended up doing it, because it was free and I don't know if I'm passionate about it enough to pay $4000 for it, especially since we don't—this isn't our land, you know? This is this is just where we rent an apartment. We're not going to be here forever, it doesn't have that kind of emotional meaning that it would if we gave birth in New Zealand, in our home town and our place, our place that we bought…If we had a home like that, or even at my parents place or something that we were connected too? Yeah maybe then I'd be willing to pay for it, but here it's just like convenience and control over your own birth really.

The relationship between place, home and value are brought to the fore here. The $4000 cost of a home birth with an independent midwife becomes a question of value, a value that is not, for Rachel, met in her Western Sydney apartment. Her connection to New Zealand however, would make the value of home birth worth the cost. It seems clear that for Rachel, New Zealand is home, and her apartment is just where she lives. It is unclear whether Rachel would have pursued a home birth had the hospital program not been available to her, though her reference to the cost of hiring an independent midwife, and whether a home birth is worth the cost suggests it may not have been a choice she would have made. Expressing the need to be at home in order to have control over her birth draws on common home birth rhetoric. By using a publicly funded hospital program, Rachel is able to mitigate the expense of hiring an independent midwife with the value and worth of birthing at home. These programs are an increasing option for women who are unable or unwilling to pay the cost of independent midwifery, but can still safely birth at home.

Several women expressed a deep attachment to the place in which they either planned to give girth, or where they did give birth. For Nina, two years after the home birth of her son, she still felt connected to the rental house in which he was born. Talking about how she felt as her due-date approached, she said:

> I think towards the end there was a lot of stress about where I was going to birth because we were moving. I actually couldn't picture myself birthing in this new house, and so [baby] actually came three weeks early, three days before we were supposed to move…And at the time [midwife] was saying "I think you're going to have the baby today", and I was saying "but we're in the wrong house and I can't move because we haven't finished painting yet and all the towels are at the new house and I can't birth here", but then when I really thought about it…I'd been trying to picture myself birthing in the new house and I hadn't been able to.

Nina told me she had spent a lot of time in pregnancy visualising going into labour, and doing relaxation breathing based on those visualisations, and the rental house was always the place in which she visualised. Via spiritual practices such as meditation and visualisation, Nina made a psycho-spiritual connection between her pregnant body, her baby, and the rental home, a connection that, after the months of pregnancy, was particularly strong. This connection was interrupted with the purchase of the new house and moving plans, causing a clearly fraught decision making process when she went into labour early. Despite birthing in the rental house, as she had planned, Nina said:

> I feel really sad in a way that it wasn't our home that we own, it was in our rental place. I feel really sad every time I drive past there, like a real kind of connection to that house, and I feel sad that he's not going to grow up in the house that he was born in. But at the same time I kind of can see why I needed to birth there...that had been the plan until we suddenly bought this house, so that had been the plan most of the way along. And that's where I pictured myself when I was doing visualization and stuff…and also [baby] knew that was the plan.

Decisions about birth and space are complex and involve interplay between practical, emotional and spiritual factors and perceptions of birthing women. For Nina, having two homes when she actually went into labour dislodged her planning—both practical and emotional/spiritual planning, and the decision no longer became one of birthing at home, but birthing in the place that felt *most like* home at the time, her rental. Here the space between home and house is particularly strong, and it is clear that for Nina, she was planning a *home* birth, and as such feeling connected to the surrounding space was the most important thing.

Similarly, the conflict between home and connection to place was also played out with Fenay, who had a free birth for her first child, and when she became pregnant the second time, she was living in a different town, several hundred kilometres away. In talking about the birth of her second child, she said

> We ended up out in [small town] which is a hole! Living in an awful flat that looked out into the bins of the supermarket, so I didn't want to have a baby

there, so we went over to the hospital.

The juxtaposition between contamination and cleanliness is at the forefront here, as Fenay recalls the view from the flat overlooking the supermarket bins, which is said together with calling the town a hole, and describing her flat as awful. These emotive descriptions of this space are given as the reasons she went to hospital. The hospital, in this context, "solves" the problem Fenay has with the town and the flat, and the contamination of the flat by the proximity to the supermarket bins. The hospital becomes the symbol of cleanliness, a pure, sterile environment that trumps the home when the home is contaminated. Fenay illustrates that it is not simply being *at home* that is important for home birth, but being in a space one can feel safe in, and a space that is worthy of the importance of childbirth. Dirt, it would seem, or proximity to the dirt of consumerist waste—the supermarket bins—has little place in this scenario.

Fenay lived in a town near a world heritage national park in New South Wales when she had first and second children. When pregnant with her first child, she said:

> I used to really like sitting on rocks and sitting. Just sitting in nature. And I liked to be out in the bush a bit when I was pregnant, too...that kind of spiritualness, that connection to the earth kind of spiritualness, your understanding of the world.

Living there was a source of spiritual connection for Fenay, a place of nature and thoughtfulness. This directly contrasts to the way she describes the small town of her second pregnancy. This makes clear it was not only the "awful flat" that contributed to her feelings about not wanting to have a baby there, there was a bigger picture of the importance of feeling a connection to place as a way of justifying birthing at home. The concept of home itself is expanded beyond the physical and into the broader geographical space, and also the psychic realm of connection. Certainly, for van Muren (1990), the experience of lived space is largely pre-verbal, and thus difficult to describe and/or explain.

The home Fenay birthed her first child in, unassisted, contrasts greatly to where she lived while pregnant with her second child. For her third child, Fenay and her family were once again in the National Park setting of her first birth, where she once again birthed unassisted. The contamination of her flat while pregnant with her second child could be extended to the distance from the more nature-based spirituality reflected upon in the narrative of her first and third children's' births.

The importance of nature is a strong element in home birth discourse, with "natural birth" being one of the tenants of home birth rhetoric. Indeed the term "natural" on its own has become an umbrella term for a critique "...aimed at various crises of modern Western society, from industrialism, capitalism and materi-

alism, to urbanisation and mass culture" (Moscucci, 2003, p. 168). Natural birth is a strong theme in home births—as a concept it is used much in the same way as home is to hospital, it is perceived as the opposite of medicalised experiences. "Home birth" has become discursively synonymous with "natural birth", and thus much of the critique Moscucci mentions can be readily extended to include hospitals and medicalisation. In this sense, "home birth" as a movement can be seen as part of a growing social continuum that prioritises an ecological, sustainable worldview, which influences decisions surrounding pregnancy, childbirth and parenting as well as social life more broadly.

As part of this rhetoric, the importance of place is expanded from the expectations of home as the place to give birth to knowing whether the home is *right* for birth. One of the ways this is achieved is by introducing new ways to interact with the home space. The next sections will explore the changing dynamic that is created when birth takes place at home.

4.2 Boundaries

None of the women in this study had accidental home births; they were all carefully planned or in the process of being planned. This deliberacy also extended to the space within the home that they hoped or intended to actually give birth, many literally altering part of their home for it. Many of the women interviewed referred to the place of birth as a space rather than a room. Many of these areas had functions other than birthing, such as the room usually designated as the office, or bedroom, or even the dining or living rooms. With new configurations, new uses and new meanings, there comes the need to find new ways to protect such spaces, with a focus on the temporality of birth, and the heightened need for protection during this time. As such, a recurring theme in participant narratives was the need for respected boundaries. Ordinary means of ensuring the boundaries between the world and the home space become insufficient and there is need for something more intimate, private and specific for birth.

Laurel lives in Brisbane, Queensland. She has three children, the youngest was only a few months old at the time I interviewed her. Her first child was born in hospital with intervention, and with her second child she was looking for something more woman-focused and natural, so she went to a local birth centre. For her third pregnancy, she started going through the birth centre again, but found it was no longer the one-to-one care she felt was important, so she hired an independent midwife and started planning a home birth. When talking about the sort of things she did to get ready for the birth, she said:

> I knew that I wanted it to be dark, and to be private, and I didn't want anyone to—I was concerned about

my mum turning up, or someone turning up, so I just did everything to avoid me being disturbed. And I put signs up on the front step and the door saying "if anyone comes and we don't come, we're busy having a baby" or, "we're in bed with our baby—we love you and we'll call you later". So just to put a boundary in place so I could let that feeling go and just get on with having a baby.

The shift between speaking for herself, and speaking for the family indicates at least her perception of the family's mutual instigation of boundaries to protect their privacy during the birth. In a hospital environment, the policing of boundaries are largely governed by predetermined rules. Visiting hours create clear and often strict guidelines between the rest and privacy of new parents and visitors. At home, these boundaries are less clear and need to be instigated and enforced by the families themselves. This requires new methods of not only relating to the space of the home itself as a site of safety and security, but also of relating to others within the home.

These issues were reiterated by Taren, who told me the story of the birth of her second child, her first home birth. She described how she felt in the days after the birth,

At home, in one way you can feel a bit protected because it's your home, but other times you feel like [family] just walk up the back, and I kinda feel a bit exposed, and so I am aware of that as well. And I know I need to be a little more assertive this time around and [husband] needs to be more assertive too in saying what feels okay for us at the time, whether we have visitors or not and how long they might stay. Cause I did find that tiring, with certain people kind of staying a bit too long just only after a day or two and thinking, well you know, other people would still be hospital right now having bed rest—not that I feel like I need to be treated like a patient—I felt kind of pressured to like be dressed up with makeup and making cups of tea and hosting people cause it was my house, whereas in hospital you wouldn't be expected to do that. You would just be lying in bed with your pyjamas on cuddling the baby. But at home I kind of felt a bit sort of guilty in some way that I wasn't up making everyone cups of tea and lunch

The switch between first and second person narration here is reflective of the narrative shift between personal experience story-telling of the former and the generic truths of popular attitudes, beliefs and values of the latter (Georgakopoulou & Goutsos, 1997/2004, p. 27). For Taren, this narrative begins with the situated truth of feeling protected in one's home, but then moves to contrast this feeling when "[family] just walk

up the back", the "just" here indicating a culturally specific, "common sense" boundary—a boundary not only understood in the context of cultural home making in Australia, but also the shared understanding between Taren and I at the time of the interview. She then moves into a more personal account of her postnatal experience at home, then shifts again into a shared understanding of what would be expected of a new mother in hospital. This is not only reflective of Taren's knowledge of cultural birthing norms, but also of the shared knowledge between us in the interview setting. Taren speaks to me comfortably in the assumption that I, too, would not expect a new mother to be wearing make-up and playing host. She then switches back into first person, admitting her guilt for not living up to the expectations that she knows are unreasonable.

The conflict illustrated here between the expectations of a female host, and the experience of having just birthed a baby at home, and the lack of understanding from her family regarding this suggest that it was the expectations that were in need of boundaries rather than the visitors themselves. Taren directly implicates her husband's role in this also, saying he needs to be more assertive in what he thinks is OK. The authority of policing these boundaries is on him, while the burden of the expectations is on Taren.

Narratively it is noteworthy that this passage comes after the actual birth story of her son, and after she spoke about the ways she created her birth space and the way in which the literal construction of this space was influenced by her birthing prerogatives. The power and authority over her home before birthing decreased once the space converted back into usual living space, post-birth.

The contrast between home and hospital in this passage is unique; it was one of the few times I encountered positive representations of hospital space. What Taren is referring to here however, is not the hospital space per se, but rather the protection of hospital boundaries, and the acceptance of hospital authorised visiting time protocol within a maternity ward, which often have strict visiting hours. At home, however, there are no such protocols in place.

Though not in reference to visitors, Rachel's story also reflected the need for authority over the home, as she spoke about the plans for the birth of her baby. Two midwives were assigned to her via the hospital program, and Rachel was unsure how "hands off" they would be, considering they were used to hospital births. She said

If they really annoy me then I could just say—just leave and go and wait in the car until I call you, you know because I think there is that power in your own house that it, it's actually your space and you have that whereas when you're in the hospital and you're in kind of their space but yeah.

Here the boundary is a perceived, anticipatory one. Rachel was still pregnant during our interview, so she is talking about what she could say should the midwives "annoy" her, but Rachel indicates a boundary between her space and her authority in that space. Her reference to being annoyed clearly indicated that Rachel has a set of expectations that contrast with her perceptions of midwives behaviour in a hospital setting. Should these expectations not be met, as she has anticipated, she has a plan in place.

Rachel uses the first person when talking about these plans, reflecting the independence with which many women plan their home births. While partners are certainly part of the decision making process, ultimately the woman organises and plans most of what will take place. From buying/acquiring the items needed to the preparation of the birth space, women are the primary decision makers (Lindgren & Erlandsson, 2011). For childbirth in hospitals, research with midwives has argued that the birthing space for women does not belong to her in the moments of birth, but is "lent" to her by the hospital (Seibold et al., 2010). In home birth however, a birthing woman takes ownership of the space she holds while in labour, regardless of the usual "owner" of that space—whether it be joint ownership of communal living spaces, children's play spaces, or a partner's office space. She has prearranged with the family to be able to move freely around the space that has been dedicated to her and the birth.

5. Conclusion

Whether boundaries are physical, domestic or hypothetical, they function to reinforce balance between the pregnant/birthing woman and her home space. The cultural transgression of childbirth at home in Australia brings with it new challenges for women and their homes, challenges that may not have been met before. Childbirth drastically calls into question the existing relationship between women and home, and *both* women and home undergo an at least temporary transformation in relation to the other. The home space comes to accommodate a new set of needs and expectations, and the birthing woman and her family renegotiate their positions within this space as well.

Viewing home birth in a broader social and cultural sense opens the possibilities of "knowing" the home and birth beyond the confines of residence and medicine respectively. The impact of a focus on space and place in home birth experiences directly responds to the growing literature on therapeutic landscapes, with places and spaces moving beyond geographical location/social contexts of places, and into a more holistic understanding of the meaning of place for people, and the impact these meanings have on health and wellbeing (Gesler & Kearns, 2002; Kearns & Gesler, 1998).

When medical language "dominates and constricts

perception of the birth process…uterine contractility and cervical dilation are often discussed as if they occurred on a laboratory bench rather than in a woman's body". As part of medical discourse, this is a model of understanding that perceives women as victims of their reproductive systems and hormones, and it is one that defines pregnancy as inherently pathological—a clinical crisis worthy of active intervention (Cahill, 2001; Freund, McGuire, & Podhurst, 2003). This biomedical preference for understanding women ignores the inescapable psycho-social elements of birth (Mansfield, 2008), and the important transition to motherhood (Cahill, 2001). In home birth discourse however, the medical discourse is considerably overshadowed by holistic, even spiritual language (Davic & Davis, 1996). Part of the reason for this is the ideological as well as geographical distance between the home and the hospital. That the home would impact childbearing language and experience is telling of the importance of pregnant and birthing women's surroundings, and the impact place and space has on experience. This article really only begins to set out some of the conceptual tensions and complexities around the relationship between childbirth and home space, and more research is certainly needed to understand its intricacies.

The rhetoric of home birth as natural and woman-centred played out strongly in the narratives I heard during the interview process. When deciding on the home as the place for childbirth, the home is constructed as not only preferable to the hospital, but as the ultimate place to have a baby. For the women in this study, childbirth and home are intimately linked, and as such the meaning of home must be conceptualised to incorporate the complexities that come with childbearing.

The "return" to home for childbearing should be seen as existing within a broader social and cultural movement in Australia toward sustainability and environmental awareness, an idea that the more "natural" something is, the less mass produced, the more local, the better it is. Viewing home birth in a broader social and cultural sense opens the possibilities of "knowing" the home and birth beyond the confines of medicalisation. The impact of a focus on space and place in home birth experiences directly responds to the growing literature on therapeutic landscapes, with places and spaces moving beyond geographical location/social contexts of places, and into a more holistic understanding of the meaning of place for people, and the impact these meanings have on health and wellbeing (Gesler & Kearns, 2002; Kearns & Gesler, 1998).

Continued focus on the home space in flux as a result of planning, having, and remembering childbirth at home reignites the discussion on home birth beyond discourses of safety and risk, which dominate the current debate. The temporal redefinition of living spaces via birth at home imbued those spaces with spiritual awareness. It is the space that creates a sacred experi-

ence for childbirth, and not simply the decision to birth at home instead of the hospital. Drawing on the need to connect with the space in order to birth, as seen in the above examples, highlights the importance of space and place when it comes to childbearing, a discussion that extends beyond the hospital walls. By being as critical of the home space as we have been with hospital space, we can start to unpack the importance of the complex and intimate relationships with space, place and birth.

Acknowledgements

Conflict of Interests

The author declares no conflict of interests.

References

Abel, S., & Kearns, R. A. (1991). Birth places: A geographical perspective on planned home births in New Zealand. *Social Science and Medicine, 33*(7), 825-834.

Anthony, S., Buitendijk, S. E., Offerhaus, P. M., van Dommelen, P., & van der Pal-de Bruin, K. M. (2005). Maternal factors and the probability of a planned home birth. *BJOG: An International Journal of Obstetrics and Gynaecology, 112*(6), 748-753.

Blaaka, G., & Shauer, T. (2008). Doing midwifery between different belief systems. *Midwifery, 24*, 344-352.

Blunt, A., & Dowling, R. (2006). *Home*. London and New York: Routledge.

Blunt, A., & Varley, A. (2004). Introduction: Geographies of home. *Cultural Geography, 11*, 3-6.

Cahill, H. A. (2001). Male appropriation and medicalization of childbirth: An historical analysis. *Journal of Advanced Nursing, 33*(3), 334-342.

Catling, C., Dahlen, H., & Homer, C. (2014). The influences on women who choose publicly-funded home birth in Australia. *Midwifery, 30*, 892-898.

Catling-Paull, C., Coddington, R. L., Foureur, M. J., & Homer, C. S. E. (2013). Publicly funded homebirth in Australia: Aa review of maternal and neonatal outcomes over 6 years. *Medical Journal of Australia, 198*, 616-620.

Catling-Paull, C., Foureur, M., & Homer, C. (2012). Publicly funded homebirth models in Australia. *Women and Birth, 25*, 152-158.

Chapman, T., & Hockey, J. (Eds.). (1999). *Ideal homes? Social change and domestic life*. London and New York: Routledge.

Cresswell, T. (1996). *In place/out of place*. Minneapolis, USA: University of Minnesota Press.

Crossley, M. L. (2007). Childbirth, complications and the illusion of "choice": A case study. *Feminism and Psychology, 17*(4), 543-563.

Dahlen, H., Barclay, L., & Homer, C. (2008). Preparing for the first birth: Mothers' experiences at home and in hospital in Australia. *Journal of Perinatal Education, 17*(4), 21-32.

Davic, R., & Davis, E. (1996). Intuition as authoritative knowledge in midwifery and homebirth. *Medical Anthropology Quarterly, 10*(2), 237-269.

Davis-Floyd, R. (1994). The technocratic body: American childbirth as cultural expression. *Social Science medicine, 38*(8), 1125-1140.

Davis-Floyd, R. (2008). The technocratic model of birth. In C. G. Helman (Ed.), *Medical Anthropology* (pp. 277-306). Hampshire: Ashgate Publishing Limited. (Original work published 1993)

Downe, S. (Ed.). (2004). *Normal childbirth: Evidence and debate*. Edinburgh: Churchill Livingstone.

Edwards, N. P. (2005). *Birthing autonomy: Women's experiences of planning home births*. London and New York: Routledge.

Fannin, M. (2003). Domesticating birth in the hospital: "family centered" birth and the emergence of "homelike" birthing rooms. *Antipode, 35*(3), 513-535.

Foucault, M. (2003). *The birth of the clinic* (3rd ed.). London and New York: Routledge. (Original work published 1989)

Foureur, M., Davis, D., Fenwick, J., Leap, N., Iedema, R., Forbes, I., & Homer, C. (2010). The relationship between birth unit design and safe, satisfying birth: Developing a hypothetical model. *Midwifery, 26*, 520-525.

Freund, P. E. S., McGuire, M. B., & Podhurst, L. S. (Eds.). (2003). *Health, illness, and the social body: A critical sociology* (4th ed.). New Jersey: Prentice Hall.

Georgakopoulou, A., & Goutsos, D. (2004). *Discourse analysis: An introduction*. Edinburgh UK: University of Edinburgh Press. (Original work published 1997)

Gesler, W. M., & Kearns, R. A. (2002). *Culture / Place / Health*. London: Routledge.

Giddens, A. (1991). *Modernity and self-identity: Self and society in the late modern age*. Cambridge: Polity Press.

Hammond, A., Foureur, M., Homer, C., & Davis, D. (2013). Space, place and the midwife: Exploring the relationship between the birth environment, neurobiology and midwifery practice. *Women and Birth, 26*, 277-281.

Harding, D., & Foureur, M. (2009). New Zealand and Canadian midwives' use of complementary and alternative medicine. *New Zealand College of Midwives Journal, 40*, 7-12.

Hastings-Tolsma, M., & Terada, M. (2009). Complementary medicine use by nurse midwives in the U.S. *Complementary Therapies in Clinical*

Practice, 15(4), 212-219.

Homer, C., Thornton, C., Scarf, V., Ellwood, D., Oats, J., Foureur, M., Sibbritt, D., McLachlan, H. L., Forster, D. A., Dahlen, H. (2014). Birthplace in New South Wales, Australia: An analysis of perinatal outcomes using routinely collected data. *BMC Pregnancy and Childbirth, 14*(206).

Jackson, M., Dahlen, H., & Schmied, V. (2012). Birthing outside the system: Perceptions of risk amongst Australian women who have freebirths and high risk homebirths. *Midwifery, 28*, 561-567.

Jordan, B. (1997). Authoritative knowledge and its construction *Childbirth and authoritative knowledge: Cross-cultural perspectives* (pp. 55-79). Berekeley, Cal.: University of California Press.

Kearns, R. A., & Gesler, W. M. (Eds.). (1998). *Putting health into place: Landscapes, identity and well being*. Syracuse, NY: Syracuse University Press.

Klassen, P. (2001). *Blessed events: Religion and home birth in America*. Princeton, NJ: Princeton University Press.

Lane, K. (1995). The medical model of the body as a site of risk: A case study of childbirth. In J. Gabe (Ed.), *Medicine, health and risk: Sociological approaches* (pp. 53-72). Oxford, Cambridge: Blackwell.

Lindgren, H., & Erlandsson, K. (2011). She leads, he follows—Fathers' experiences of a planned home birth. A Swedish interview study. *Sexual and Reproductive Healthcare, 2*, 65-70.

Mansfield, B. (2008). The social nature of natural childbirth. *Social Science and Medicine, 66*(5), 1084-1094.

McMurtrie, J., Catling-Paul, C., Teate, A., Caplice, S., Chapman, M., & Homer, C. (2009). The St. George homebirth program: An evaluation of the first 100 booked women. *Australian and New Zealand Journal of Obstetrics and Gynaecology, 49*, 631-636.

Michie, H. (1998). Confinements: The domestic in the discourses of upper-middle-class pregnancy. In S. H. Aiken, A. Brigham, S. A. Marston & P. Waterstone (Eds.), *Making worlds: Gender, metaphor, materiality* (pp. 258-273). Tucson: University of Arizona Press.

Moore, S. B. (2011). Reclaiming the body, birthing at home: knowledge, power, and control in childbirth. *Humanity and Society, 35*, 376-389.

Moscucci, O. (2003). Holistic obstetrics: The origins of "natural childbirth" in Britain. *Postgraduate Medical Journal, 79*, 168-173.

Nolan, M. L. (2011). *Home birth: The politics of difficult choices*. Oxon, UK: Routledge.

Possamaï-Inesedy, A. (2006). Confining risk: Choice and responsibility in childbirth in a risk society. *Health Sociology Review, 15*(4), 406-414.

Powell Kennedy, H., Nardini, K., McLeod-Waldo, R., & Ennis, L. (2009). Top-selling childbirth advice books: A discourse analysis. *Bith, 36*(4), 318-324.

Putnam, T. (1999). "Postmodern" home life. In I. Cieraad (Ed.), *At home: An anthrpology of domestic space.* (pp. 144-152). New York: Syracuse University Press.

Rapp, R. (2001). Gender, body, biomedicine: How some feminist concerns dragged reproduction to the centre of social theory. *Medical Anthropology Quarterly, 15*(4), 466-477.

Reibel, T. (2004). The language of birth: How words colour women's experiences. *Birth Issues, 13*(1), 18-23.

Seibold, C., Licqurish, S., Rolls, C., & Hopkins, F. (2010). "Lending the space": Midwives perceptions of birth space and clinical risk management. *Midwifery, 26*, 526-531.

Skinner, J. (2002). Love and fear: The midwife and her relationship with risk. *Birth Issues, 11*(2), 69-72.

Smyth, E., Payne, D., Wilson, S., & Wynyard, S. (2013). The dwelling space of postnatal care. *Women and Birth, 26*, 110-113.

Suchman, L., & Jordan, B. (1997). Computerization and women's knowledge. In P. E. A. a. D. Schuler (Ed.), *Reinventing technology, rediscovering community: Critical explorations of computing as a social practice* (pp. 97-105). Greenwich, CT: Ablex.

Tonkiss, F. (2004). Analysing text and speech: Content and discourse analysis. In C. Seale (Ed.), *Researching society and culture* (pp. 367-382). London: Sage.

Van Muren, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Ontario: Althouse Press.

Wiebelitz, G., Weyert, J., & Beer, A. M. (2009). Use of complementary and alternative medicine in obstetrics. *British Journal of Midwifery, 17*(3), 169-175.

Williams, K., & Umberson, D. (1999). Medical technology and childbirth: Experiences of expectant mothers and fathers. *Sex Roles, 41*(314), 147-168.

About the Author

Emily Burns
Emily Burns is a PhD candidate at the Religion and Society Research Centre at the University of Western Sydney, Australia. Her research focuses on spirituality and home birth in Australia.

Article

Reconceptualizing the "Publicness" of Public Housing: The Case of Brussels

Nele Aernouts * and Michael Ryckewaert

Cosmopolis Centre for Urban Research, Department of Geography, Vrije Universiteit Brussel, 1050 Brussels, Belgium;
E-Mails: nele.aernouts@vub.ac.be (N.A.), michael.ryckewaert@vub.ac.be (M.R.)

* Corresponding author

Abstract

This article brings together various spatial and political theorizations on the commons as a broader project to understand multiple dimensions of the inclusive nature of public housing. By picking up theorizations on the commons, the article feeds the debate on the loss of "publicness" of public housing and removes attention from what is seen as a state related business. Four core-dimensions are identified: ownership, participation, community activity and physical configuration. The article takes a sample of public housing estates in the Brussels capital region as case studies to test the capacity of this framework to detect the degree of "publicness" of various forms of public housing. The preliminary results—based on this limited sample of cases studied through interviews with privileged informers and a literature study—suggest that approaches where individual households are actively involved in the organization of the dwelling environment work best to compensate for the loss of "publicness" that has occurred since the decline of the welfare state. In that respect, these approaches tie in with some early predecessors of "public" housing, mainly cooperatively organized garden city developments. Further in-depth case study research should shed more light on the validity of this hypothesis, as well as on the precise mechanisms and features that determine this regained "publicness".

1. Introduction

Recent literature on public space and public services has developed a discourse on the loss of "publicness". This has been linked to declining public investments since the late 20th century, which have brought about a re-regulation of public spaces and public services. Among other things, the literature focuses on market-driven administrative reforms generalized as "New Public Management" (Haque, 2001), the de-politicization of the public sphere (Garnham, 1990), the substitution of public by private sector ownership (Haque, 1996; Paddison & Sharp, 2007), and the commercialization of public space (Low & Smith, 2006; Sennett, 1977; Zukin, 1995). It does not only highlight the social-economic side effects of these tendencies for low-income groups, such as a less equitable distribution of resources, but also points at the lack of public debate on the nature of public good itself (Coursey & Bozeman, 1990; Paddison & Sharp, 2007).

Whereas the literature on the decline of publicness in public spaces and services is quite abundant, the loss of publicness in public housing has received less atten-

tion. Nonetheless, public housing has also experienced profound changes since the decline of the Welfare state model. Among the most important changes are the privatization of public housing (Forrest & Murie, 1988; Walker, 2001) epitomized by "right to buy" policies that allow tenants to acquire their dwelling; a shift from the provision of public housing by the state to provide support or subsidies for individual households on the private rental market (or from "aide à la pière" to "aide à la personne") (Kemmeny, 1995); the establishment of public housing programs reserved for middle income groups; and shifts in the social housing system from a "general" or "universal" system to "residual" or "safety net" system (Ghekière, 2007; Kemeny, 1995; Winters & Elsinga 2008).

Some scholars have attempted to explore alternative concepts that enhance publicness (Coursey & Bozeman, 1990; Fraser, 1990; Haque, 2001). One of these approaches is a reorientation towards "the common" (Bailey, 2013; Kratzwald, 2012; Mattei, 2012; Reid, 2003). A reorientation of "publicness" towards "the common" results from rethinking the meaning of the state/market paradigm in light of an appropriation of public goods by citizens for a common purpose (Bailey, 2013; Harvey, 2012; Mattei, 2012). Indeed, while traditionally, commons were associated with shared environmental resources, increasingly, public goods are being recognized as potential "commons" (Mattei, 2012; Reid, 2003; Stavrides in An Architektur, 2010). This reorientation is intertwined with emerging social practices, the so-called "commoning" practices (Linebaugh, 2008) of civil society that address new forms of citizenry, inclusion, co-habitation and co-production.

Although public housing concerns both a service and a space of cohabitation, few attempts have been made to re-conceptualize the "publicness" of public housing in light of the commons. This is striking as many public housing actors have origins in philanthropic or cooperative approaches at the turn of the 19th and 20th century that heavily relied on the mobilization of common property resources. Next, emerging practices point to such reconceptualization, for instance in the appearance of government sponsored community land trust housing schemes. In addition, the history of public housing has not systematically investigated the degree to which common property resources or "commoning" practices have played a role in the establishment of the various forms of public housing that occur throughout Europe and within particular countries.

In order to do this, this article develops a framework to analyze public housing models on crucial dimensions of the commons. To explain the link between "publicness" and commons and to develop this framework, it builds on commons theory (De Angelis, Stavrides in An Architektur, 2010; Harvey, 2012; Mattei, 2012; Ostrom, 1990) and on planning and architecture literature on "commons" and shared space (De Rijck, Guldentops, & Vansteelant, 2000; Loeckx, 1998; Lofland,

1998; Stavrides, 2010). It then takes the Brussels Capital Region as a case study to test this framework because of two reasons. Firstly, as the capital of the first country to be subject to industrialization on the European mainland during the 19th century, the city was very soon confronted with the need to develop adequate housing for the growing number of low income groups that came to settle in the city. This has led to a wide range of approaches and housing models since the late 19th century (De Meulder, 1983; Lagrou & Janssens, 1985; Ryckewaert, 1999; Schoonbrodt, 1979; Smets 1977). Secondly, recent and emerging practices in Brussels exemplify the decline of "publicness" we identified above, as well as the rethinking of public housing in line with the commons. On the one hand, a new autonomous public real estate agency has started to develop middle income housing since the late 1980s, illustrating both the trend towards "New Public Management" and a reorientation of public housing policy towards middle-income groups. On the other hand, a first step has been taken towards an institutionalized form of housing based on commons principles, with the establishment of Community Land Trust Brussels, the first of such organizations on the European mainland. To conclude, some preliminary findings of the identification on the inclusive nature of various commons aspects in public housing in Brussels will be identified.

2. Redefining "Publicness" in Light of the Commons

In the welfare state model, resources such as energy, health care, infrastructure, water supplies, public transportation, housing and public media were assigned to the state. Therefore, the term "public" is intuitively used as something that is provided or owned by the state (Kratzwald, 2012). In contrast, the burgeoning public space and service literature attaches distinct, yet divergent meanings to "public", referring to the "public sphere" as a political concept and the "publicness of space" as a spatial concept (Low & Smith, 2006). According to Habermans (1962), "the public sphere mediates between society and state". It is a social domain in which political participation is enacted by means of public discourse, debate and where possible, a common judgment on matters of mutual interest. "Public space" on the other hand, can absorb meaning from the public sphere, but it can also reaffirm, contradict and channel social and political relations (Heynen & Loeckx, 1998; Low & Smith, 2006).

One main principle behind the commons appearing in the vast amounts of literature that is written on the concept is that society is dependent on natural and cultural resources. These resources are shared and governed for the common benefit, and therefore called "commons". Today, academics increasingly complement this resource-based definition by notions of citizenship and inclusion. Ostrom (1990) points at the

presence of a "community", small and stable populations with a thick social network and social norms promoting conservation of common property resources. De Angelis (in An Architektur, 2010) describes commons as a process that enables people to develop new kinds of relationships by acting together. For Mattei (2012) developing commons is about the creation of a community, based on specific mechanisms of participation and inclusion. However, relating commons to groups of similar people bears the danger of the creation of closed communities that exclude others from their privileged commons (Harvey, 2012; Stavrides in An Architektur, 2010). Therefore some researchers plead for a reorientation of the notion of the common towards the public sphere. According to Harvey, "public goods and spaces become commons when social forces appropriate, protect and enhance them for a common purpose and a mutual benefit" (Harvey, 2012, p. 73). For Stavrides, commons have to provide ground to build a public realm and give opportunities for discussing what is good for all. Kratzwald (2012) argues that the recognition and creation of common goods is not only related to self-organized social networks of citizens, but can contribute to a participation and empowerment of citizens in the public sector, as such relating to the original meaning of the "public sphere".

In order to detect the level of "publicness" in public housing, we relate these public space, sphere and commons concepts to architecture and planning literature. We propose four core dimensions: ownership, participation, community activity and the spatial structure of the environment.

A first core dimension to interpret "publicness" is *ownership*. On a macro-level, ownership refers to the share of housing and land that is held in common. According to Angotti (2008) and Barnes (2006) a trenchant expansion of community land is crucial to counteract price elevations through gentrification and speculation. At the level of the housing project, it refers to the legal status of a place (Marcuse, 2005). In public housing we can identify three subdimensions: the legal status of the operator, the type of ownership of the house and the land on which the house is built; the presence and use of public spaces or non-residential functions. For the type of ownership, a distinction can be made between lease, individual purchase, collective purchase, hereditary tenure and the preconditions that go along with this. Preconditions such as income thresholds, regulations on re-sale of owner-occupied housing are important, as they regulate access to several types of public housing. The larger the community or group of communities that benefits from any form of ownership as defined above, the more the place is public.

The second dimension deals with the *participation* of inhabitants of the housing estate and the neighborhood in the planning, design and maintenance of their dwelling environment. The greatest degree of "public-

ness" is reached in case of co-production (Van den Broeck, Verschure, & Esho, 2004). Co-production means that there is an equitable relationship between communities, professionals, and third parties, bearing in mind existing power relations. It does not imply consulting citizens when developing a project, but an intensive process of co-creation (Marcuse, 2009).

The third dimension that entails "publicness" is the presence of *community activity*. According to Putnam, effective participation in local government depends on a tradition of small-scale community activity, strengthening mutual relationships and social cohesion (Putnam, 1993; Taylor, 1998). This especially holds true when keeping in mind the underprivileged inhabitants of public housing, for whom the neighborhood forms an important reference and source of access to contacts (Driessens, 1998; Overbekking et al., 1983). This access is often most easily found by homogeneous groups of neighbors, sharing the same network (Driessens, 1998). For this reason, it is important to have a variety of choices to be involved in community activity. This encouragement of diversity allows the expressing of different and often conflicting benefits and builds on overlapping these communities (Taylor, 1998). As Taylor states, "from these diverse activities, the confidence can grow to engage more widely, to find common ground with others". Community activity proves to be particularly successful when inhabitants receive the means to improve their own environment (Watson, 1994). Given the limited historical data on this topic, the third dimension will not be dealt with systematically in the discussion of the cases that serve as examples of the various Brussels housing models.

The fourth aspect, the *physical configuration*, refers to the morphology and architecture of the project. Distinction can be made between a place's macro design—its relationship with the hinterland- and the design of the place itself (Kesteloot et al., 1999; Varna & Tiesdell, 2010). For the macro design, a study of Kesteloot et al. (1999) demonstrates that centrality and connectivity are important dimensions. The two dimensions allude to the presence of commercial or social services in the vicinity and the accessibility of a place by public or private transport (Varna & Tiesdell, 2010). At the level of the dwelling, architectural-ethnographic research has delivered evidence that the quality of the housing environment contributes significantly to the development of social relationships (De Rijck et al., 2000; Loeckx, 1998; Stavrides, 2010). The research illustrates that a gradual transition between public and private, open and closed spaces is significant, as it provides opportunities for informal encounters and freedom of appropriation (De Rijck et al., 2000; Lofland, 1998; Stavrides, 2010). According to Stavrides (2010), such "in between zones" or "porous places" influence informal encounter, creativity and new forms of commonality.

In order to understand the degree of "publicness"

in various approaches to create affordable housing in the Brussels Capital Region, a sample of public housing estates is crossed with the dimensions listed above. Building on former research on public housing and architectural paradigms (Ryckewaert, 1999), the sample covers both a geographical and a temporal spectrum, looking at projects built between the beginning of the 20th century and today, and stretching from the greener edges of the agglomeration to the more dense neighborhoods in de the 19th century belt and the inner city.

3. The Publicness of Public Housing in the Brussels Capital Region

3.1. Housing the Working-Class

Although in Europe public housing is seen as a product of the welfare state, its seeds go back to the beginning of the 19th century. Demographic changes, industrialization, proletarization and related problems of hygiene and diseases initiated the so-called "housing question" all over Europe. In Belgium, the first housing law was enacted in 1889, as a result of social unrest and riots related to the poor working and living conditions of laborers. At the time, social housing was organized by private housing associations of enlightened entrepreneurs or industrialists with philanthropic ideals, like the Familistères of Godin in Laken and Guise (De Meulder, 1983; Dour, 1890; Lagrou & Janssens, 1985). Assimilated into a liberal tradition in housing policy, the first housing law was based on an indirect government intervention. It supported credit companies and savings banks in granting loans at preferential rates to self-builders and authorized the establishment of local social housing associations (Smets, 1977). The law provided a considerable stimulus for public housing but did not contribute to a fundamental improvement of living conditions of the poor. It mostly benefited individual self-built housing in the sparse space at the border of the city or, supported by cheap railway tickets, in the rural hinterland

(De Decker et al., 2005) and loans for such housing were only affordable for the more wealthy workmen.

The development of two housing complexes in the Rue Victor Hugo in Schaarbeek, designed in 1902, is a clear result of the first housing laws. The municipal social housing association that was in charge of the project was "the result of a difficult compromise" (Huberty, 1999, p. 36). At the end of the 19th century, social policy was still in its infancy, and although many were convinced that housing workmen deserved specific attention, visions on ownership and architecture were very dependent on different ideologies. While liberals and Christian-democrats of the municipality were convinced that home ownership, preferably of small, clustered housing of one floor outside the physical and moral unhealthy city center was most preferential, the socialist fraction was more interested in tenant multi-family housing close to work and recreation activities. In a discussion among municipal councilors it was stated: "Isn't it self-evident that collective housing will facilitate bad habits typical for an agglomeration, on the same place, between people of the same class?....When you only ensure a workman a dwelling under cheap conditions, without forcing him to save money, you do not do more than encouraging him to a greater consumption in the bar" (Simonetti, 1999, p. 28). In contrast, the socialist founding father of the association, Louis Bertrand, was convinced that "The house should be part of a public service....The task the socialist municipal government has to fulfill is to make the municipality owner of the housing stock, to make these houses as healthy as possible and to rent them for the lowest price" (Bertrand as cited in Simonetti, 1999, p. 22). While there was no question of participation of inhabitants in decision-making bodies, the emancipation of the working class was an important feature for Bertrand. It was his belief that political power, and as such the emancipation of the proletariat, could only be conquered through the power of the municipalities, which were able to exert pressure on the state and central power (Bertrand & Vinck, 1900).
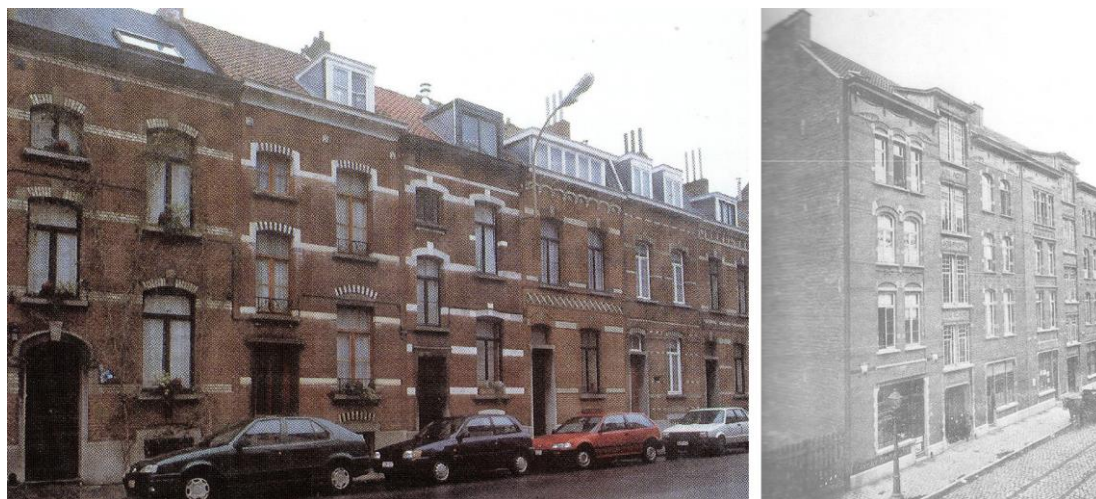

Figure 1. Owner-occupied and tenant housing Victor Hugo (date unknown). Source data: Huberty, 1999.

The first constructions of the housing association, "Victor Hugo", designed by laureates of an architect competition, are exemplifying for this compromise (Figure 1). Nowadays swallowed by the center of the Brussels Capital Region, back then the owner-occupied lines of row housing and multifamily housing were built on a piece of land in a neighborhood in full expansion at the edge of an agglomeration, where land prices and the connection to the water and sewage system were not too expensive. In the architecture of both projects, the sense of community of former workmen's quarters or philanthropic experiments is hard to find. The facades line the pavement and are kept neatly to the building line. The row house is similar to the typology of the bourgeois house, but reduced in size and refinement, while the multifamily housing is based on the "maison de rapport" (e.g., tenements house), the former speculation housing with four or five levels and more than two apartments per floor (Smets, 1997). Despite this, the architects undertook some undeniable efforts in order to pursue variety in the repetition of blocks. In the lines of row houses, a small niche and a step buffer the door from the footpath. The elevated first floor enables a visual relationship with the street, without allowing passersby to look inside the house. By varying brickwork colors and patterns, cornices, form and montage of the windows, each house has its own particularity. Also the architect of the multifamily apartment blocks played with these components in the design of the facade. The plan of the blocks is based on the system of "double houses": the hall, which was seen as the extension of the street, leads visitors to a collective garden on the ground floor and two individual apartments on each floor upstairs. The heightened roof and the French and Dutch statements on the facade of the stairwells, supporting the inhabitants to "be hardworking, clean and economical for all", accentuates this communal space and interestingly reveals how fears of bad behavior were met.

Similarly to the development of the housing association, the "publicness" of the two housing projects could be defined as a compromise. Although the row of single-family houses was available at an affordable price for working families, the public investment was channeled back to the private market once the project was resold. Also the in-between spaces are less pronounced when compared to the multi-family housing. Furthermore, the construction of the projects was not a result of coproduction with future residents or inhabitants of the neighborhood, but some of the founders of the housing associations hoped for a greater power for municipalities in order to ensure citizen participation.

3.2. Living in Good Spirit with Nature. The Cooperative Garden Neighborhood Model

The social and political transformations in the aftermath of World War I paved the way for a new approach towards the housing question. The devastation and great housing need during and after the war awakened a strong social sensibility among Belgian politicians and city planners. The reconstruction congress that was organized in 1920 on the initiative of *Union des Villes* was a yardstick in this respect. The main targets of the congress were the struggle against private speculation and the connected question of land ownership. Out of the social consequences of speculation building, conference participants Verwilghen and Van den Brempt concluded that the housing problem in large cities could be reduced to questions of land ownership. In order to remediate speculation following postwar austerity, both speakers were convinced that it was desirable "to steer a maximum of effort to re-obtain land for the community" (Van den Brempt as cited in Smets, 1977, p. 106). The plentiful, affordable lands around the city center were seen as the location and the garden city as the urban model to do this. The "garden city", the brainchild of Ebenezer Howard, was seen as the synthesis between the city and the countryside, a place in which different populations lived together in good contact with nature (De Meulder et al., 1997). The viewpoints reflected at the congress would become the source of inspiration of the National Company of Cheap Housing. The Belgian umbrella organization had been created a year earlier to set up construction programs for social housing companies. The projects realized in its early period clearly pronounce a preference for the, in 1920, proposed garden city, but diverged from the concept of Howard (Smets, 1977).

This is also the case for Moortebeek, a garden neighborhood of the cooperative "Les Foyers Collectifs" (Figure 2). The German garden suburb, rather than the garden city of Howard was the inspiration source for the establishment of a tenant cooperative, an ownership structure in which tenants are shareholders of the organization. The founding member of "Les Foyers Collectifs" got acquainted with the model while living in Germany. In the "Maison du Peuple", where he worked as a jurist, he elaborated the idea to do a similar thing in Brussels and launched a call for different sections of the Belgian labor party to become candidate-member of the cooperative. With the money of the members, the state, the province and the National Company, the Foyer acquired a remote piece of forested land at the confines of three municipalities (Les Foyers Collectifs, 1981). A tramline would make up for this peripheral location. The base lines of the master plan for the piece of land—the respect for the topography, the orientation of the streets, the lighting of the houses and parcels, the dimensions of the streets—were largely based on the directives of the National Companies. Next to housing, a center was to be included with a cooperative grocery store, butcher, shoemaker shop, pharmacy, a meeting and medical consultation center, an office and residence

for the concierge. In order to avoid monotony, for the architecture of each street, the urban planner in charge relied on several teams of architects. Although the co-operative was not involved in the design of the master plan, the administrative council organized a premature form of member participation for the architecture of the buildings. They questioned the 115 members of the co-operative about their wishes regarding the interior spaces. The architects got down to work with the results of the referendum and afterwards discussed their design with the cooperative (Les Foyers Collectifs, 1981).

Nowadays the tramline has been abolished and a highway borders the garden neighborhood, but the quarter has been able to preserve its specific spatial qualities. A linear park that replaced a former car route and public grass fields offer a great playground for pedestrians. The profile of the streets makes their route even more comfortable: pedestrian paths are divided from car traffic through rows of grass and trees.

The houses are not fenced, but buffered from the pedestrian paths by a "front garden" decorated with a wide range of plants and pottery. Also, the involvement of inhabitants in decision-making processes remains an important feature today. The governing board is still comprised of tenants. They gather yearly with all inhabitants to inform and negotiate about activities and renovation work. In contrast, community activity has diminished. Since the arrival of the car, many people have started to spend their free time abroad. Before, they relied on several sports and cultural activities in the community center, including horticulture classes, theatre, basketball, football and gymnastics (Figure 3). Besides that, the changing composition of inhabitants due to more strict entrance rules to housing makes it difficult for the aging government board to attract people to their activities. Nevertheless, sports facilities in the community center and the public parks are still intensively used by inhabitants of the surroundings.
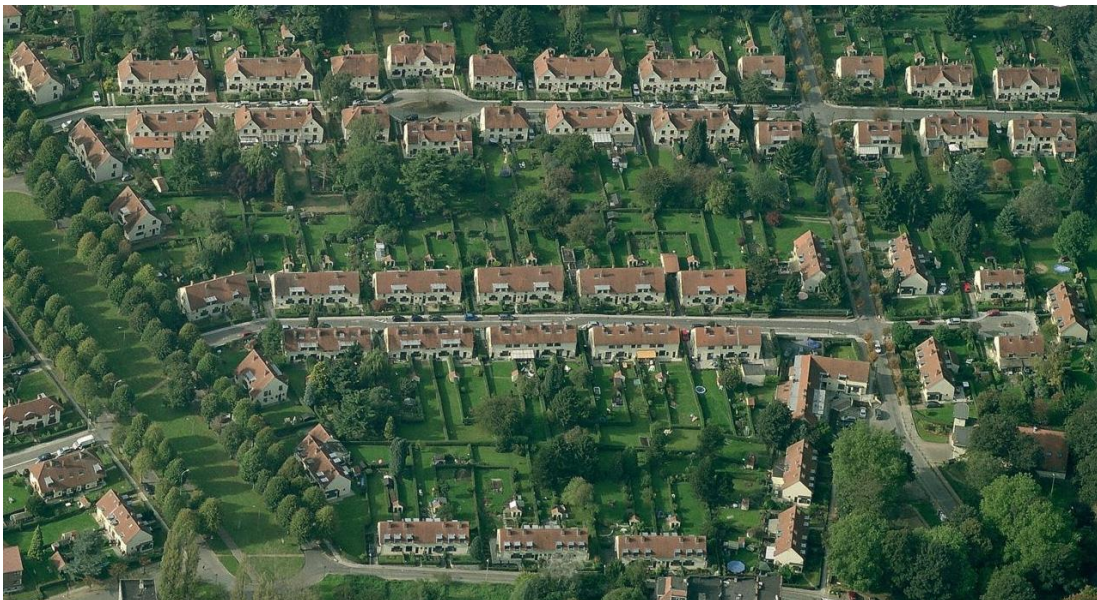
Figure 2. Moortebeek (2014). Source data: Bing Maps (2014).

Figure 3. Moortebeek between 1921 and 1980 (exact date unknown): private garden and sports field. Source data: Les Foyers Collectifs (1996).

Although the thick social network of former times is not present anymore, the garden suburb has many elements that point to a high degree of publicness: the legal structure of tenant-shareholders; the pedestrian routes, public spaces and community activities that attract inhabitants from outside; and the participation of inhabitants in decision-making processes.

3.3. Housing the Masses. The High-Rise Housing of the Modern Movement

The end of the 1920s induced a break from the garden city model in Belgium. The autonomy of the tenant cooperatives of the garden neighborhood, which did not appeal to municipal governments, and the financial limitations imposed on the public sector in light of the economic crisis were decisive in this respect. After the congress of the influential architecture platform CIAM (Congrès Internationaux d'Architecture Moderne) that took place in Brussels in 1930, the formula of the free-standing tower in an open park landscape would dominate modernist urban thinking in Belgium (Smets, 1977). In order to guarantee habitability and affordability in this new ideal environment, the boundaries of the minimum dwelling were defined, limiting space to the precise movements and needs of human beings (Mumford, 2002). The maximal functionality and plentiful community services in a healthy green environment would make up for the limited footprint of the individual house (De Meulder et al., 1999). While this modernist ideal found consensus among architecture circles, in Belgium, its principles were only applied after World War II. The serial production, rational land use and functional units were an economic solution for the construction of social tenant housing in the strongly industrialized post-war period (Smets, 1977). In contrast to the cooperative garden city, which was created as an alternative to the existing city, social tenant housing was built as a green field development at the border of the city or in the context of slum clearance programs in the city center. Nevertheless, in Belgium, high-rise housing projects were not produced on the same scale as in neighboring countries like the Netherlands and France. Communal services and shops at the ground floor of the housing estates were projected, but often not built. The historic Catholic hegemony preferring individual houses and family above community life certainly played a role in this respect (De Decker et al., 2005). Housing policy primarily supported access to homeownership, even if the amount of public housing produced reached a peak in this period. The strict regulations for social housing companies played a role as well. They did not allow social housing companies to build anything but housing and the involvement of private partners to include other functions seemed bureaucratically impossible (De Meulder et al., 1999).

The high-rise social tenant neighborhood of Peterbos illustrates some of these shortcomings (Figure 4). The ambitious master plan of the architect to steer the urbanization of a green suburb through the development of a park neighborhood was bogged down as a result of several limitations (Kesteloot et al., 1999). First, due to the upgrade of the adjacent old boulevard into an intermediary ring, the area was cut off from the old center of the community. Next, after the construction of the first towers of the projects, the plan to mix high-rise towers with low-rise blocks to respond to the existing fine-meshed fabric of the village of Anderlecht was reduced due to budgetary limitations of one of the two social housing associations in charge. The blocks and towers would be positioned around a central court, on which the main axes of the surrounding street would converge.
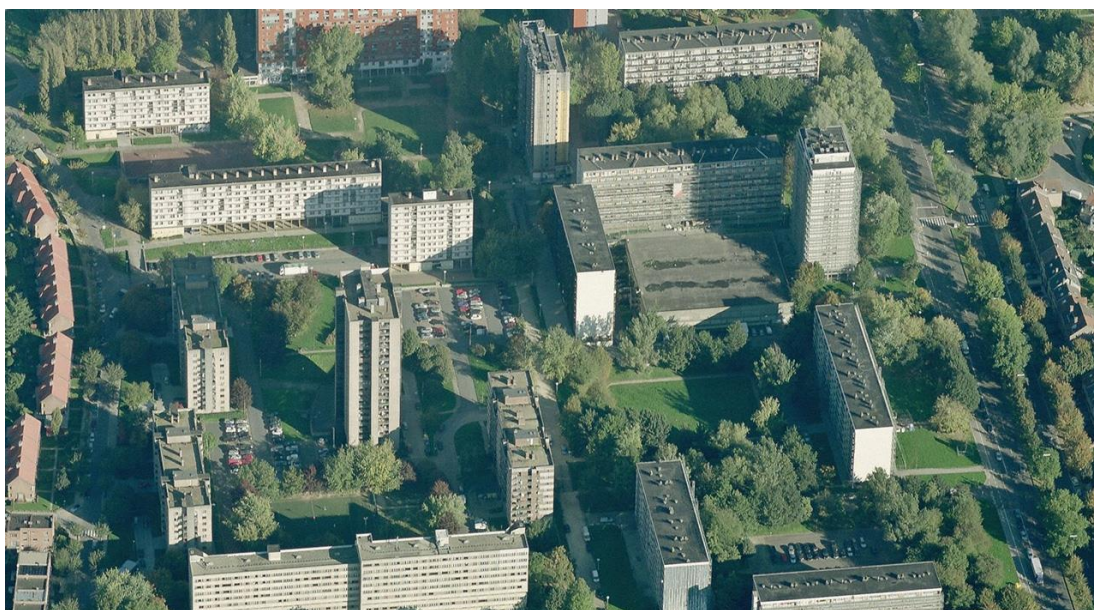
Figure 4. Peterbos (2014). Source data: Bing Maps (2014).

This urban logic evaporated to a plantation of north-south and east-west blocks delimiting spaces monopolized by cars. Not only did the typology of the building change but also the circulation inside. In order to reduce conflict a large communal circulation space was divided into several stairwells on each floor. More budgetary limitations scaled down the envisaged articulation of the entrances to these circulation spaces. Next, out of the planned public facilities along the existing road, such as a school, a church and a community center, only a community center was built in the basement of a block in the middle of the area. The planned commercial services were also limited to three grocery shops and a laundry store. However, the park landscape offers a creative environment for children living in and around the estate, who intensively use the seemingly undefined or reduced spaces in the middle of the estate, as well as the sports fields at the border of the estate.

The attenuation of public facilities, of connections to the adjacent neighborhoods, of intermediary zones between the public areas and the private apartments in the seemingly ad hoc placed blocks and of citizen participation, highly diminishes the level of publicness in Peterbos. However, in one of the following sections, we will see that nowadays attempts are being made to improve participation and community activity to meet this loss.

3.4. The Public Housing Sector in Crisis

With the repercussions of the oil crisis in the 1970s and the socio-economic transformations in its aftermath, the role and functions of the state, and likewise the public housing sector, would be redefined. In the first instance, in Belgium, it did not directly lead to a standstill in building activities. On the contrary, as in the postwar period, the Belgian government based itself on Keynesian principles to stimulate the economy. The extra investments in social housing associations created breathing space to take up new activities. In the Brussels Capital Region between 1971 and 1980, 11,203 public dwellings were built (Zimmer, 2009). This corresponds to one fourth of the total amount of public housing in Brussels today and remains the highest number of housing produced in a decade (Zimmer, 2009). However, during this period town rehabilitation reached an apotheosis while modernism seemed to be further stripped of any architectural aspiration (De Meulder et al., 1999).

Exemplary for this period is the housing complex "Evenepoel" and the organizational changes of the municipal social housing association in charge. In order to include more low-income households, the association barred renters with higher incomes from its

patrimony. In addition, it established a management committee that gathered monthly to follow up on renters' files. Residents were however still not included in this new governance set up (Huberty, 1999).

The four high-rise blocks of Evenepoel that were built between 1977 and 1980 are located in a former residential zone, encroached by business developments (Figure 5). While their size somehow fits in this area with medium size buildings and the buildings contain high-quality apartments with large terraces, the architecture of the building does not add value to the surrounding urban tissue. A lack of pedestrian connections to commercial and cultural services increases the isolation of the estate. The formation of trees that demarcate the public spaces between the buildings reinforces the green structure of the adjacent sports park, but a physical connection is lacking.

At the beginning of the 1980s, the full brunt of the crisis hit Belgium. The policy measures of the right wing government in power struck a hard blow against the existing housing policy. The demolition of entire city quarters and difficult-to-appropriate and "inhuman" dwelling complexes and public space, united housing activists in a struggle against the destruction of the traditional city. Activists, ecologists, youth and women's movements pleaded for a more human approach to dwelling, with attention for participation and community aspects of cohabitation (De Meulder, 1997). Against this background, the regionalization of Belgium into a federal state with three communities (the Flemish, French and German Community) and three regions (Flanders, Wallonia and the Brussels Capital Region) took place. In light of this regionalization, in 1989 the national public housing company was split into three separate and autonomous regional public housing companies. These regional companies became responsible for social municipal housing associations and tenant cooperatives, operating on their respective territories (Zimmer, 2009). In Brussels, this regionalization coincided with a strong stagnation of the public housing sector. While in Flanders at the beginning of the 1990s operations were set up to increase the share of public housing, in Brussels the yearly production of public housing between 1990 and 2014 decreased to a historically low level. Although the extensive financial debt inherited after the regionalization and the obsolete public housing patrimony are part of the explanation, political choices play an important role as well (Romainville, 2010). Despite an increasing lack of affordable housing, today only 40% of the housing budget is devoted to the maintenance of and support for social rented housing, while the remainder is geared towards the support of homeownership and city renewal programs.

Figure 5. Evenepoel (2014). Source data: Bing Maps (2014).

3.5. New Public Housing Approaches with Shifting Meanings of "Publicness" in Response to the Housing Crisis

The invigorated support for homeownership is since 1989, among other things, has been dedicated to the construction of housing for owner occupation, organized by a regional development company (Citydev, the former Gomb). The main goals of the housing program of the company are to attract or keep middle-class families in the city and to support city rehabilitation. The attraction of middle-class families is often a double gain for the municipalities that they inhabit: it encourages investments in areas mostly left aside by private developers and ensures an increased tax income. For inhabitants of these municipalities who are bound to rent an apartment on the private market, the gains are less clear. The attraction of people with higher incomes supports gentrification. In advanced stages of gentrification, the influx of higher income groups causes property prices to rise. An additional factor that increases this possibility is that these projects are often acquired as investment property. Not only the ownership structure, but also the spatial layout of housing projects of Citydev has little to offer in terms of publicness, especially in its early period.

This can be verified by looking at one of their city renewal projects containing 4 apartment buildings along two roads (Figure 6). The project is located in Kuregem, a central and well-connected neighborhood at the border of the center of the city and housing many migrants and low-income families. Two adjacent buildings are located next to a square, but hardly have any involvement beyond the confines of it, nor one another. The outdoor space is entirely subdivided into a patchwork of private gardens. The lifted ground floor elevates the distance between the apartments and the street, while the minimalistic materialization and positioning of the windows of the brick building indicate non-involvement with the public realm. In the more recent building at the other side of the block the ground floor is also elevated, but the entrances lie one step higher, and have a setback with a niche. In contrast to the brick building, the facade is appropriated by the inhabitants of the block. Clotheslines, climbers, plants and flowerpots decorate the facade and give a lively impression to the in-between realm created by entrances, protruding terraces and bay windows.

Despite the serious stagnation in the social housing production in Brussels since 1989, the social housing sector has made progress in its policy. The regional company introduced strict rules for each housing association in its territory concerning the lease of social housing. In a second phase, the region has developed diverse systems to strengthen existing initiatives provided by public housing agencies, such as a service for social support and an expansion of resources for staff (Zimmer, 2009). Regarding the dimensions of participation and community activity, the regional company has encouraged social cohesion projects in specific housing estates and the establishment of advisory boards in all social housing associations in its territory. First, the "social cohesion projects" are collaborations between a community development agency and one or more social housing agencies that aim to increase citizen participation and chances to encounter among inhabitants of housing estates with specific social problems. At present there are twenty social cohesion projects in the Brussels Capital Region. Since 2000, a community development agency has worked on such projects in

Figure 6. Amélie, Borsalino, Canotier, Clémenceau (2014). Source data: Bing Maps (2014).

the aforementioned housing estate of Peterbos. Their work depends on the needs and opportunities they detect: from the support of tenants's initiatives, to the organization of family excursions, social restaurants, language courses for women, workshops on rational energy use, artistic interventions and yearly fairs. Even if there is still a lot of work to do in terms of physical improvement and collaboration with social organizations working in the neighborhood, according to the community worker in charge, in 14 years community activity and solidarity among inhabitants have remarkably increased. Second, in the cooperative limited liability companies—the traditional legal status of housing associations in Brussels—residents are not part of the governing board. This was changed in 2004 in order to create a better relationship and to enhance dialogue between public housing associations and inhabitants of social housing. Nowadays, tenants can elect representatives for a period of three years. In case of maintenance and renovation works in the buildings and public spaces, they are heard by the housing association. Two representatives also have a deliberative voice on the government board. However, the effectiveness of these advisory boards strongly depends on the involvement of housing associations. In the municipal housing associations of the Evenepoel project for example, the advisory board struggles to find sufficient members to represent the 2,250 families of the housing association. Moreover, the representatives encounter difficulties raising their voices on the governance board.

3.6. The Establishment of a Community Land Trust in Brussels

In 2010 the specific housing problems of the Brussels Capital Region—the lack of affordable, quality housing on the private rental market and the limited amount of social housing expanding only very slowly, as well as pockets of gentrification in deprived neighborhoods—urged groups of citizens to seek alternative housing solutions for low-income groups. Among the participating groups were community centers, a refugee and immigrant organization, a cooperative bank, social economy associations and specialists in citizen participation. Two of these organizations, a community center and the refugee and immigrant organization, were important agencies steering this network of action. Together they had set up a zero-energy collective housing project for underprivileged households. The search for an adequate legal framework to implement similar kinds of projects raised their interest in the American Community Land Trust model as applied in the US. In 2010 a research consortium conducted a feasibility study on the implementation of the US Community Land Trust model in Brussels. At the end of 2012, the research proposed the establishment of the Brussels CLT (CLTB) as a private trust fund combined with a nonprofit organization. This setup was approved by the Brussels Capital Region and became eligible for financial support. Today, the organization is recognized by the Housing Code of Brussels and granted yearly subsidies for the construction of 30 dwellings a year. The recognition by and the (significant) subsidies from the Brussels Capital Region were important conditions to maintain affordability for low-income groups. The subsidies cover the costs of both the land and a portion of the building.

Nowadays, the legal structure of CLTB has a great influence on the ownership structure and on participation. Firstly, one of the main legal principles behind the Community Land Trust Brussels is a separation be-

tween the ownership of the home and the land ownership. The land on which collective housing projects are realized is owned and managed by the foundation of CLTB, while the dwellings are owned by the inhabitants. Inhabitants are thus able to adapt their dwelling and to live in it as long as they want. However, a clause limits the surplus value when the dwelling is sold. In order to make the dwelling affordable for the next candidate-buyer, the inhabitant can only gain 25% of the added value in case of resale. Moreover, Community Land Trust has a preemptive right and a right of priority in cases of resale. This enables the organization to make the house available for a next candidate-buyer. These legal conditions have important implications. On the one hand, inhabitants of the projects become "owners", enabling them to save money, while offering them housing security. On the other hand, CLTB holds the property rights to the land, and has an important degree of control over the property of the dwelling. These mechanisms ensure affordability on a long term.

Secondly, the operational structure of CLTB is a not-for-profit association. The governing board of this association consists of equally three parties. One third of the organization represents the (future) inhabitants of its projects, one third stands for citizens of Brussels and one third is covered by political representatives. Although for candidate-buyers, income thresholds of social rental housing are adopted, CLTB is an open-member association. Everyone is able to become a member and to join the general meetings.

When a new project is launched, candidate-buyers are asked to join a savings group. This group is in turn a factual association. Next to the general meetings and reunions of the elected governing board, architecture workshops are organized to involve this group in the design process of the project. The recommendations of the candidate-buyers are included in the design brief to select the architects and builders for the project. Designers and builders are indeed selected through public procurement procedure as the Brussels Housing Fund—a limited liability company controlled and supported by the Brussels Capital Region—acts as the prime contractor for CLTB projects. The design workshops and meetings evolve around more informal activities that offer a chance for future inhabitants and people from the neighborhood to meet.

As none of the projects is finished yet, it is not possible to discuss the physical configuration of the dwellings. In legal terms, Community Land Trust housing cannot be labeled as "public housing", but referring to the commons framework and the shared ownership, the thoroughly pursued co-production from the very inception of the project to elaborate community activities, it becomes clear that the initiative scores high on the dimensions of "publicness" proposed in this article.

4. Conclusion

With reduced public sector investments and an increasing privatization of public spaces, the loss of "publicness" has entered the debate on socio-spatial inclusion. As the term "public" is today often associated with a state related resource, some scholars have started to feed this debate by picking up the classic vocabulary of "the commons". Commons relate to resources that are actively protected and managed by groups of citizens. This article argues that this reorientation of "publicness" towards "the common" is a relevant angle to study the publicness of public housing. A double line of reasoning is followed. On the one hand, several changes in the public housing sector such as the privatization of public housing, the development of public housing programs to create owner-occupied housing for middle-income groups and the shift from a "general" housing system to a "safety net" system, indicate a loss of "publicness". On the other hand, emerging practices point at a reconceptualization of the public towards the commons, for instance in the appearance of government sponsored community land trust housing schemes. Such schemes seem to go back to the origins of public housing, as many public housing actors started from philanthropic or cooperative approaches that heavily rely on the mobilization of common property resources.

In order to understand the publicness of public housing starting from the concept of the commons, the article develops a framework to analyze various historical public housing models on crucial dimensions of the commons. Building on commons theory (De Angelis, Stavrides in An Architektur, 2010; Harvey, 2012; Mattei, 2012; Ostrom, 1990), on planning and architecture literature on "commons" and shared space (De Rijck et al., 2000; Loeckx, 1998; Lofland, 1998; Stavrides, 2010) the article identifies four core dimensions: ownership, co-production, community activity and physical configuration. It then takes different public housing models in the Brussels Capital Region as a case study to test this framework and to identify the inclusive nature of various aspects of "publicness" under study. For each housing model, preliminary findings can be drawn from the four dimensions of the framework and the relationship between them.

First of all, for the first core dimension of "ownership", in the Brussels Capital Region, the most inclusive situation is reached in case of the cooperative garden city neighborhood, containing tenant social housing, public spaces and non-residential functions. In this estate, most people benefit from the type of ownership and outsiders are also able to use the public spaces and external functions. The democratic administration of the governing board assures that residents are involved when it comes to decisions about new dwelling projects on the site, while the supervision of the re-

gional housing company ensures the same entrance rules as for other social housing in Brussels. The projects of Citydev, and the owner-occupied prewar working class housing are the least public as only the first buyer benefits from the reduced acquisition price.

Secondly, the cases show that the legal status of the operator—i.e., the "ownership" dimension—has a great influence on the participation of inhabitants in the planning, design and maintenance of the building. One third of the governing board of the Community Land Trust organization consists of residents, and one third of inhabitants of the wider Brussels Capital Region. The integration of citizens of Brussels ensures a closed community is not created and lets the neighborhood engage with the plans of Community Land Trust. In addition to this, the Community Land Trust scores highest in the dimension of co-production as the organization actively involves future inhabitants in the design of their collective dwelling.

Thirdly, in the framework, centrality and connectivity on a macro level, as well as a gradual transition between the public and the private and open and closed spaces are described as important features. In the case of Peterbos it has become clear that well-connected spaces sometimes feel isolated as a result of their location between important junctions. On the micro-level, the way the facade regulates the transition between street and house, and the quality of shared circulation spaces, such as stairwells and corridors, plays an important role in the creation of an in-between realm. The elevated entrances with a setback and niche, the protruding terraces and bay windows in one earlier discussed project of Citydev evoke a direct engagement of inhabitants with their environment.

Finally, although community activity is difficult to measure without performing sociologic or ethnographic research, this preliminary study shows that when a physical configuration offers little space for encounter due to a lack of transition zones, as in the case of Peterbos, the organization of community activities by community development agencies becomes important to guide social cohesion between inhabitants.

Strikingly, but not unexpectedly, the types of housing originating from private initiative or by intermediary organizations, such as the housing cooperatives and the CLT scheme, score best on the dimensions of "publicness". Picked up by public policy and granted government support, this article points out that these instances of bottom-up institutionalization seem to offer a promising path for the development of inclusive dwelling environments. Nonetheless, it has to be noted too that the more traditional "public" initiatives that find inspiration from "communing" practices, such as the set up of social cohesion projects, offer opportunities to "repair" the "publicness" in existing housing estates. In that sense, also strategies stemmed from other dimensions, such as the introduction of alternative

ownership schemes (representation of residents on governing boards, introduction of long lease schemes as opposed to traditional rental contracts or owner-occupation), the layout of shared spaces, the inclusion of residents in decision making processes in maintenance works might contribute to more inclusive estates. Further in-depth research involving ethnographic research and spatial analysis could shed more light on the merits and limitations of housing solutions that incorporate "commoning" dimensions as well as the precise mechanisms and features of the interaction between the different dimensions.

Acknowledgements

Conflict of Interests

The authors declare no conflict of interests.

References

An Architektur. (2010). On the commons: A public interview with Massimo De Angelis and Stavros Stavrides. *An Architektur*, *23*, 4-27.

Angotti, T. (2008). *New York for sale. Community planning confronts global Real Estate.* Cambridge, Massachusetts: The MIT Press.

Bailey, S. (2013). *Beyond ownership. Governing the wealth of urban commons*. article presented at the Commoning the City Conference, Stockholm, Sweden. Retrieved from www.kkh.se/video/Saki.html

Barnes, P. (2006). *Capitalism 3.0: A guide to reclaiming the commons*. San Fransisco: Berrett-Koehler Publishers, Inc.

Bertrand, L., & Vinck, E. (1900). *Rapport sur le socialisme communal*. article presented at International Socialist Congress, Paris, France.

Bing Maps. (2014). Bing Maps. Retrieved from www.bing.com/maps

Coursey, D., & Bozeman, B. (1990). Decision making in public and private organizations: A test of alternative concepts of publicness. *Public Administration Review*, *50*(5), 525-535.

De Decker, P., Kesteloot, C., Maesschalck, F. de, & Vranken, J. (2005). Revitalising the city in an anti-urban context: Extreme right and the rise of urban policies in Flanders, Belgium. *International Journal of Urban and Regional Research*, *29*, 152-171.

De Meulder, B. (1983). *Galerijwoningen te Brussel* (Doctoral dissertation). Belgium: KU Leuven.

De Meulder, B. (1997). Wonen tussen de gemeenplaats van de fermette en het stigma van het woonblok.

Naoorlogse stedenbouw en huisvesting in de versplinterde Vlaamse ruimte. In VHM, *Bouwstenen van soicaal woonbeleid 1945-1995* (pp. 295-335). Brussels: VHM.

De Meulder, B., De Decker, P., Van Herck, K., Ryckewaert M., & Vansteelant, H. (1999). Over de plaats van de volkswoningbouw in de Vlaamse ruimte. In P. De Decker, E. Van Mele, & M. Demalsche (Eds.), *Huiszoeking: Kijkboek sociale woningbouw* (pp. 10-86). Brussels: Ministerie van de Vlaamse Gemeenschap.

De Rijck, T., Guldentops, F., & Vansteelant, H. (2000). Economische integratie en sociale uitsluiting: De invloed van de architecturale omgeving in sociale woonwijken. *Agora*, *16* (2), 38-42.

Dour, R. de (1890). *Les habitations ouvrières en Belgique*. Brussels: Parijs.

Driessens, K. (1998). De geologie van armoede. In J. Vranken, D. Geldof, & G. Van Menxel (Eds.), *Armoede en sociale uitsluiting: Jaarboek 1998* (pp.67-84). Leuven: Acco.

Forrest, R., & Murie, A. (1988). *Selling the welfare state: The privatisation of public housing.* London/New York: Routledge.

Fraser, N. (1990). Rethinking the public sphere: A contribution to the critique of actually existing democracy. *Social Text*, *26*(25), 56-80.

Garnham, N. (1990). *Capitalism and communication: Global culture and the economics of information.* London: Sage Publications.

Ghekière, L. (2007). *The development of social housing in the European Union; when general interest meets community interest, summary of the publication*. Paris: Dexia Editors.

Habermans, J. (1989). *The structural transformation of the public sphere: An inquiry into a category of bourgeois society*. Cambridge Massachusetts: The MIT Press.

Haque, M. S. (1996). The intellectual crisis in public administration in the current epoch of privatization. *Administration and Society*, *27*(4), 510-536.

Haque, M. S. (2001). The diminishing publicness of public service under the current mode of governance. *Public Administration Review*, *61*(1), 65-82.

Harvey, D. (2012). *Rebel cities. From the right to the city to the urban revolution.* London: Verso.

Heynen, H., & Loeckx, A. (1998). Scenes of ambivalence: Concluding remarks on architectural patterns of displacement. *Journal of architectural education*, *52*(2), 100-108.

Huberty, C. (1999). Een geschiedenis van schaarbeekse "harden". In *Schaarbeekse Haard 100 jaar* (pp. 35-94). Brussels: Les dossiers de la Fonderie.

Kemeny J. (1995). *From public housing to the social rental market. Rental policy strategies in a comparative perspective.* London/New York: Routledge.

Kesteloot, C., Loeckx, A., Meert, H., Heynen, H., De

Meulder, B., De Rijck, T., Guldentops, F., Ryckewaert, M., Van den Broecke, H., & Vansteelant, H. (1999). *Lage inkomensbuurten: Onderzoek naar ruimtelijke kwaliteiten en hun implicatie voor de sociaal-economische integratiemogelijkheden van bewoners* (Commissioned by the Flemish Community). Leuven: Instituut voor Sociale en Economische Geografie, OSA.

Kratzwald, B. (2012). Commons und das Öffentliche. Wem gehören öffentliche Dienstleistungen? In S. Helfrich & Heinrich-Böll-Stiftung (Eds.), *Commons. Für eine neue Politik jenseits von Markt und Staat* (pp. 79-84). Bielefeld: Transcript.

Lagrou, E., & Janssens, L. (1985). *Inventaris van de volkswoningen te Brussel. Inventaire des logements sociaux à Bruxelles*. Brussels: Sint-Lukaswerkgemeenschap.

Les Foyers Collectifs. (1981). *Vivre à Moortebeek. Historique de la cité-jardin de Moortebeek 1921-1981*. Brussels: Les Foyers Collectifs.

Les Foyers Collectifs. (1996). *75 Années de vie collective. 1921-1996*. Brussels: Les Foyers Collectifs

Linebaugh, P. (2008). *The Magna Carta Manifesto. Liberties and Commons for All*. Berkeley: University of California Press.

Loeckx, A. (1998). Kabylia, the house and the road: Games of reversal and displacement. *Journal of architectural education*, *52*(2), 87-99.

Lofland, L. (1998). *The public realm: Exploring the city's quintessential social territory (communication and social order)*. New York: Aldine de Gruyter.

Low, S., & Smith, N. (2006). The imperative of public space. In S. Low & N. Smith (Eds.), *The politics of public space* (pp. 1-16). London: Routlegde.

Marcuse, P. (2005). The "threat of terrorism" and the right to the city. *Fordham Urban Law Journal*, *32*(4), 767-785.

Marcuse, P. (2009). From justice planning to commons planning. In P. Marcuse, J. Connolly, J. Novy, I. Olivo, C. Potter, J. Steil (Eds.), *Searching for the just city* (pp. 91-102). New York: Routledge.

Mattei, U. (2012). The strategy of common assets: Providing direct access to social justice by renewing common sense: the state, the market and some preliminary questions about the commons. In *Redefining and combating poverty: Human rights, democracy and common assets in today's Europe* (Trends in social cohesion n°25, pp.307-324). Strasbourg: Council of Europe Publishing.

Mumford, E. (2002). *The CIAM discourse on urbanism, 1928-1960.* Cambridge and London: The MIT Press.

Ostrom, E. (1990). *Governing the Commons. The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

Paddison, R., & Sharp, J. (2007). Questioning the end of public space: Reclaiming control of local banal spaces, *Scottish Geographical Journal*, *123*(2), 87-

106.

Putnam, R. (1993). *Making democracy work: Civic tra-ditions in modern Italy.* Princeton: University Press.

Reid, A. (2003). *Public education as an education com-mons* (Discussion Paper)*.* Bundoora: Australian Council of Deans of Education. Retrieved from http://www.acde.edu.au/pages/images/Public%20 Education%20as%20an%20Education%20Commons %20%28199Kb%29.pdf

Romainville, A. (2010). Who benefits from home own-ership support. *Brussels Studies*, *25 January 2010*(34). Retrieved from http://www.brussels studies.be/medias/publications/EN_121_BruS34 EN.pdf

Ryckewaert, M. (1999). Woningbouw in stad en land. Marges en vernieuwende strategieën. *Stedebouw en ruimtelijke ordening: Tijdschrift voor ruimtelijke ontwikkeling en omgevingskwaliteit*, *80*(5), 37-42.

Schoonbrodt, R. (1979). *Sociologie de l'habitat social: Comportement des habitants et architecture des cites*. Brussels: Editions des architeves d'architecture moderne.

Sennett, R. (1977). *The fall of public man*. Cambridge: University Press.

Simonetti, P. (1999). De oorsprong van de Schaar-beekse Haard. In *De Schaarbeekse Haard 100 jaar*, (pp. 5-112). Brussels: Les dossiers de la Fonderie.

Smets, M. (1977). *De ontwikkeling van de tuin-wijkgedachte in België: Een overzicht van de Bel-gische volkswoningbouw in de periode van 1830 tot 1930*. Brussels: Pierre Mardaga.

Stravrides, S. (2010). Heterotopias and the Experience of Pourous Urban Space. In K. A. Franck & Q. Ste-vens (Eds.), *Loose space: Possibility and diversity in urban life* (pp. 174-192). London/New York: Routledge.

Taylor, M. (1998). Combating the social exclusion of housing estates. *Housing Studies*, *13*(6), 819-823.

Van den Broeck, J., Verschure, H., & Esho, L. (2004). Urban Development by Coproduction. In A. Loeckx, K. Shannon, R. Tuts, & H. Verschure (Eds.), *Urban trialogues: Visions, projects, co-production* (pp. 198-212). Nairobi: UN-Habitat, KULeuven.

Varna, G., & Tiesdell, S. (2010). Assessing the public-ness of public space: The star model of publicness. *Journal of Urban Design*, *15*(4), 575-598.

Walker, R. M. (2001). How to abolish public housing: Implications and lessons from public management reform. *Housing Studies*, *16*(5), 675-696.

Watson, D. (1994). *Putting back the pride: A case study of a power-sharing approach to tenant participa-tion*. Liverpool: ACTAC.

Winters, S., & Elsinga, M. (2008). The future of Flemish social housing. *Journal of Housing and the Built En-vironment*, *23*(3), 215-230.

Zimmer, P. (2009). *Diachronische analyse van de Brus-selse sociale huisvesting.* Brussels: BGHM.

Zukin, S. (1995). *The cultures of Cities.* Oxford: Basil Blackwell.

About the Authors

Nele Aernouts

Nele Aernouts is an architect, urban designer and PhD researcher of the Cosmopolis Centre for Urban Research at the Vrije Universiteit Brussel. Since 2013 she has been conducting research on forms of collective dwelling that addresses the housing needs of underprivileged groups. By focusing on the Brussels Capital Region, her main interest is to uncover the complex interplay between planning pro-cesses and spatial configurations of social housing estates and the co-habitation of its residents.

Dr. Michael Ryckewaert

Michael Ryckewaert is Assistant Professor of Urbanism and program director of the MSc in Urban De-sign and Spatial Planning at the Vrije Universiteit Brussel. He is also associate director of the Cosmop-olis Centre for Urban Research. His research focuses on housing and social inclusion, spatial policy, urbanism history and theory, and infrastructure planning.

Article

The Provision of Visitable Housing in Australia: Down to the Detail

Margaret Ward [1],* and Jill Franz [2]

[1] School of Human Services & Social Work , Griffith University, University Drive, Meadowbrook, Queensland, 4131 Australia; E-Mail: margaret.ward@griffith.edu.au; Tel: +61-7-3382-1453; Fax: +61-7-3382-1246
[2] School of Design, Queensland University of Technology, GPO Box 2434, Brisbane, Queensland, 4001 Australia; E-Mail: j.franz@qut.edu.au

* Corresponding author

Abstract
In response to the ratification of the United Nations Convention of the Rights of People with Disabilities (CRPD), Australian housing industry leaders, supported by the Australian Government, committed to transform their practices voluntarily through the adoption of a national guideline, called Livable Housing Design. They set a target in 2010 that all new housing would be visitable by 2020. Research in this area suggests that the anticipated voluntary transformation is unrealistic and that mandatory regulation will be necessary for any lasting transformation to occur. It also suggests that the assumptions underpinning the Livable Housing Design agreement are unfounded. This paper reports on a study that problematised these assumptions. The study used eleven newly-constructed dwellings in three housing contexts in Brisbane, Australia. It sought to understand the logics-of-practice in providing, and not providing, visitable housing. By examining the specific details that make a dwelling visitable, and interpreting the accounts of builders, designers and developers, the study identified three logics-of-practice which challenged the assumptions underpinning the Livable Housing Design agreement: focus on the point of sale; an aversion to change and deference to external regulators on matters of social inclusion. These were evident in all housing contexts indicating a dominant industry culture regardless of housing context or policy intention. The paper suggests that financial incentives for both the builder and the buyer, demonstration by industry leaders and, ultimately, national regulation is a possible pathway for the Livable Housing Design agreement to reach the 2020 goal. The paper concludes that the Australian Government has three options: to ignore its obligations under the CRPD; to revisit the Livable Housing Design agreement in the hope that it works; or to regulate the housing industry through the National Construction Code to ensure the 2020 target is reached.

Issue
This article is part of the special issue "Housing and Space: Toward Socio-Spatial Inclusion", edited by Dr. Dallas Rogers (University of Western Sydney, Australia), Dr. Rae Dufty-Jones (University of Western Sydney, Australia) and Dr. Wendy Steele (RMIT University, Australia).

1. Introduction

Like many countries, Australia ratified the United Nations Convention on the Rights of People with Disabilities (CRPD) (United Nations, 2007) and committed to supporting the inclusion and participation of all people through the design of the built environment (Australian Government, 2011a, 2011b). Public places and spaces in Australia are now required to meet prescriptive access standards (Australian Government, 2010); however, there are no equivalent access requirements for the private spaces in housing. Instead, Australian governments at the national, state and local levels largely rely on market forces with a mix of goodwill within the housing industry and some incentivisation through government programs (Australian Government, 2009;

Livable Housing Australia, 2013) to increase social inclusion through housing design. The National Disability Strategy 2010–2020 (Australian Government, 2011a), the Australian Government's formal response to its obligations under the CRPD, describes its policy direction in housing design as follows:

> The greater the take up of universal design features, the more open the community is to people with disability, including those with age-related disability. This provides greater choice about where to live, but also more social opportunities for visiting friends and family. (p. 32)

Its key strategy is an agreement in 2010 among leaders from the community sector, the housing industry and government to encourage the housing industry voluntarily to provide "visitability" in all new housing by 2020 (p. 34). Visitability is the capacity for a dwelling to facilitate the inclusion and participation of all people in family and community activities (Concrete Change, 2003; Maisel, 2006; Truesdale, Steinfeld, & Smith, 2002). The strategy also encourages designers to develop best practice in universal design. Initially called the National Dialogue on Universal Housing Design (NDUHD), the group developed a national guideline, called Livable Housing Design (NDUHD, 2010a) and a strategic plan with the goal of all new housing being visitable by 2020. A not-for-profit company, Livable Housing Australia, was established in 2011 to steer the housing industry towards the 2020 voluntary target (Livable Housing Australia, 2012).

Livable Housing Australia's strategy of education and accreditation stems from its understanding that the buying-market already expects many of the access features to be provided, that the cost is negligible compared to retrofitting these features later, and that the demand for visitable housing will increase due to the ageing population (NDUHD, 2010b). Livable Housing Australia also considers that, with greater awareness among buyers and builders, some minor changes to current building practices, and the use of a voluntary accreditation system, the housing industry can reach the 2020 goal without government intervention (Livable Housing Australia, 2012).

Many guidelines have been developed over the past twenty years to increase the supply of visitable housing; Lifetime Homes in the United Kingdom (Brewerton, Darton, & Foster, 1997) and the Australian Standard for Adaptable Housing (Standards Australia, 1995) are indicative examples. Voluntariness, as a strategy for industry transformation, has been shown to fail overseas (Imrie, 2003, 2006, p. 4; Kose, 2003, 2010; Malloy, 2009; Nishita et al., 2007) and in Australia (Karol, 2008; Ward, 2013; Ward, Franz, & Adkins, 2012) to make any discernable systemic change in industry behaviour. The housing industry also resists mandated approaches for

a variety of reasons, including cost, minimal demand at the point-of-sale, and a concern over the validity of the advocated need (Imrie, 2006, pp. 45-67; Milner & Madigan, 2001; Nishita et al., 2007). In the light of this evidence, it is not surprising that Livable Housing Australia has achieved minimal progress towards the 2020 goal (Livable Housing Australia, 2013).

This paper questions why the housing industry has made minimal progress and suggests what might be required to meet the 2020 target. The contribution to knowledge this paper offers is threefold: it problematises the assumptions behind Livable Housing Australia's voluntary approach; it attempts to understand the patterns of responses by individual housing providers to the eight features of Livable Housing Australia's visitability guideline—down to the detail; and it identifies three logics-of-practice which signpost what might be required of the housing industry if the Australian Government is committed to social inclusion through better housing design.

The Australian housing industry is highly competitive with the production of new housing primarily governed by cost and demand-driven trends. It uses relatively simple construction techniques using semi-skilled labour where possible, standard-sized items and economies of scale within strict timelines (Murray, Ramirez-Lovering, & Whibley, 2008). It relies on regulators and planners to set minimum standards (Dalton, Chhetri, et al., 2011, p. 24). Ninety-five percent of Australian housing is privately-developed (Australian Institute of Health and Welfare, 2013), with three-quarters of the housing stock in the form of single-family dwellings (National Housing Supply Council, 2011, p. 10). Small businesses dominate the Australian housing industry, and they are connected with manufacturers, finance intermediaries and land developers forming a complex interdependent network (Dalton, Chhetri, et al., 2011, p. 39). Most new dwellings are built speculatively for sale at completion, with capacity for some minor cosmetic changes within set designs (Dalton, Wakefield, & Horne, 2011). Any changes to established practices risk time-delays and unexpected costs; these have a domino effect which reverberates beyond the original providers to others within this complex network (Bringolf, 2011, p. 281).

The lack of responsiveness by the housing industry to build more visitable housing has resulted in advocacy for regulation for visitability in all new housing through the National Construction Code and State- and Territory-based building legislation (Australian Network for Universal Housing Design, 2013; Civil Society Project Group, 2012; Disability Investment Group, 2009). The advocates consider visitability in housing as a human right, similar to the equitable access now required in public spaces and places. They consider legislating for visitability in housing to be necessary if people with disability are to be included like everyone else in family and community life.

These divergent positions, with Livable Housing Australia's poor outcomes to date, serve to question the validity of the assumptions behind the original agreement. One assumption is that individual housing providers will voluntarily change their practices to consider the needs of future users; that is, to "enhance the quality of life for all occupants at all stages of their life (*sic*) by including safer and more user-friendly design features" (NDUHD, 2010b, p. 1). Another assumption is that individual housing providers will change voluntarily because the agreed visitability guideline is reasonable, doable and fair within the current business environment (p. 7). A third assumption is that individual housing providers will "do their bit" for social inclusion, rather than be directed to do so by an external regulator (pp. 8-10).

The paper first explores these three assumptions drawing on the current literature. It then reports on a study, which examined the current response to providing the eight features of visitability defined in the Livable Housing Design agreement and identified three logics-of-practice. The paper concludes by suggesting what might be required if the 2020 target is to be reached.

2. Three Core Assumptions Underpinning the Livable Housing Design Agreement

2.1. Assumption 1: Buyers and Builders of New Housing Will Consider the Needs of Future Users

At first glance, the resistance against both voluntary transformation and regulation towards visitable housing appears logical; in a market-driven economy experiencing minimal demand for visitable housing, there is little reason for individual housing providers to change what works for them now. Australia's peak housing industry body argues that, unless the demand increases substantially or individuals pay extra for it, there is no reason for a change that increases production costs. Further, modifying existing housing offers the housing industry important additional business (Housing Industry Association, 2011). In this regard, it could be said there is little incentive for individual housing providers to design in features which anticipate the needs of future users or to consider sustainable design practices to extend the life of the dwelling.

Given the advocacy for visitable housing, it is useful to consider why there is a lack of demand at the point-of-sale. The population in Australia is ageing and with it, becoming more disabled (Australian Bureau of Statistics, 2010, p. 2). Older people should be potential buyers, given their preference for home-ownership and high incidences of disability and frailty; however, most wish to remain in their existing housing and communities for as long as possible, and investment in modifications is the preferred solution over the purchase of a new dwelling away from their established networks (Judd et

al., 2010). Beer and Faulkner's (2009) study into the housing careers of Australians identifies that another potential buyer-group—families of younger people with disability—have particular challenges in establishing their home near support services, employment and transport. Once these services are in place, these families are less likely than other families to move to a new dwelling. Imminent retirees, or "baby-boomers" are another potential demand group; they want to stay active and involved in community life for a long time (Ozanne, 2009). Further, they are more mobile than the previous generation, changing their housing a number of times after they retire. They consider their housing more as an investment than as a stable family-base (Beer & Faulkner, 2009). With some exceptions, this group is not as yet showing signs of planning for their future frailty, illness or disability or caring for an ageing or ill partner in their housing decisions (Judd et al., 2014, p. 98; Spanbroek & Karol, 2006).

Buyers of new housing generally have been found to be unwilling to pay extra for features for the "common good", particularly if they do not consider they will personally benefit (Crabtree & Hes, 2009). Investors also do not consider visitable housing a priority for tenants (Beer & Faulkner, 2009; Jones, de Jonge, & Phillips, 2008). In summary, the people who need visitable housing appear the least likely to buy new housing, and the people most likely to buy new housing are not demanding visitable features. This challenges the first assumption of the Livable Housing Design agreement that both buyers and builders of new housing will consider the needs of future users in their decision-making.

2.2. Assumption 2: The Housing Industry Will Transform Voluntarily in the Current Business Environment

Previously noted, the Australian housing industry depends on a complex network of suppliers, contractors and subcontractors creating interdependence, each affecting the other. Individual providers remain competitive through the use of standardised designs and building practices, tight schedules and volume building with minor cosmetic add-ons to give a market edge (Dalton, Wakefield, et al., 2011; Murray et al., 2008). Individual providers have been found to respond to one-off requests for visitability either by charging significantly above the cost of the changes or by sending the buyer elsewhere (Ward, 2013; Bringolf, 2011).

Recent assessments indicate the cost of providing these minimum access features in new construction is low (Victorian Government, 2010); however, the housing industry refutes this (Housing Industry Association, 2010) arguing the cost to housing providers is not so much in the change in design but in the process of changing established practices to build the new design. The policy-position of the housing industry is that in-

creased demand is the best strategy to transform practice, and direct government assistance will be necessary to make the provision of access features affordable in bespoke dwellings (Housing Industry Association, 2011). Without these, changing voluntarily to meet the Livable Housing Design guideline simply does not make good business sense. This challenges the second assumption.

2.3. Assumption 3: The Housing Industry Will "Do Their Bit" for Social Inclusion

The CRPD and the Australian Government's obligations as set out in the National Disability Strategy bring a particular focus to the broadly accepted right to social inclusion by promoting the right for people with disability to access all aspects of the physical and social environment on an equal basis with others (Australian Government, 2011a; United Nations, 2007). The CRPD not only directs how housing assistance is offered—"[people have the right] to choose their place of residence and where and with whom they live on an equal basis with others" and so forth (United Nations, 2007, Article 19)—it also challenges how housing should be designed—"the design of…environments…[should] be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design" (Article 4).

The Australian Government is accountable to the international community to ensure that the rights set out in these treaties are respected, protected and fulfilled. The obligations to the right to appropriate housing are considered to be progressively realisable; that is, Australia does not need to comply with this obligation immediately, but must work to fulfil these obligations over time. Further, any progressive action is obliged to match the level of resources available to it (People with Disability Australia, 2010). The broad support from government, community and the housing industry for the Livable Housing Design agreement confirms that the 2020 target should and can be met, and that, if it is not met, alternative action should be taken.

The lack of visitability in housing excludes many older people and people with disability; they cannot find suitable housing nor can they visit other people's homes, and this contributes to their isolation, marginalisation and exclusion (Beer & Faulkner, 2008). Further, by not requiring visitability at the time of construction, the housing industry shifts the costs of retrofitting to future residents and the secondary costs of exclusion to the health, disability and aged-care budgets (Saugeres, 2010). The recent major reforms for aged-care (Productivity Commission, 2011a) and disability (Productivity Commission, 2011b) in Australia are designed to support people in their homes and connected to their informal networks for as long as possible before they resort to costly specialised residential facilities. These programs are relying on the success of the Livable Housing Design agreement to increase the supply of visitable housing, and eventually to build inclusive communities in the long-term. The Livable Housing Design agreement suggests that the housing industry has accepted this responsibility.

Yet as noted earlier, the housing industry has traditionally handed the responsibility for the long-term planning, policy development, and safeguarding community expectations to government planners and regulators through the National Construction Code (Dalton, Chhetri, et al., 2011, p. 24) and there are a number of benefits for stakeholders in doing so. A standard can be negotiated and agreed upon with buyers who do not understand what to look out for in the building process (this is particularly the case for home-purchasers); governments can manage the unintended impacts of a market-driven industry on other policy areas; and the cost of higher standards can be mitigated if everyone complies (Productivity Commission, 2004, p. 92). The National Construction Code acts as a safeguard so that community expectations for safety, health, environmental and social obligations are met within a competitive housing-market. The Productivity Commission describes the particular dilemma in relying on market-forces to ensure visitability in housing:

> Governments sometimes intervene in the market for the social purpose of ensuring certain minimum standards of accommodation (including access to buildings) for all. It is most unlikely that certain building qualities, such as access for people with disabilities, would be delivered widely in the absence of government intervention. (p. xxiii)

The lack of response to date challenges the third assumption that individual housing providers will voluntarily "do their bit" for social inclusion and that government intervention in the housing-market will not be required.

The paper now turns to the study of the current response to providing Livable Housing Design's visitable standard and how the individual features were and were not provided. The next section describes the research design and is followed by a report on the findings. The paper then discusses these findings and concludes by suggesting the options open to the Australian Government to increase the provision of visitable housing.

3. Research Design

This qualitative study was situated in Brisbane, Australia and used the Livable Housing Design agreement's eight minimum features, described in the housing industry agreement in 2010, as the benchmark for visitability (NDUHD, 2010a), as listed below:

1. Access to dwelling: Step-free access to an entry door;
2. Entry: A step-free entry through that door;

3. Car space: Minimum 5400mm x 3800mm car space, if a car space is provided;
4. Doorways/corridors: Minimum 820mm doorways and 1000mm wide corridors at the entry level;
5. Toilet: Minimum 1200mm x 900mm space in front of one toilet on the entry level;
6. Shower: Step-free shower if a shower is provided on the entry level;
7. 5mm transitions: Floor level transitions of less that 5mm throughout the entry level; and
8. Reinforcement: Reinforcement in the walls of the bathroom and shower for future installation of grabrails.

The eleven dwellings were chosen as a theoretical sample from three housing contexts: social (that is, subsidised community-managed and public) housing; private housing; and housing provided under the auspice of the Queensland Government's former Urban Land Development Authority (ULDA), an initiative to increase the supply of affordable housing. Each dwelling was identified as ordinary or mainstream; that is, not designed specifically for people with disability or older people. Each housing context had a different imperative for, and experience in, providing housing with access features. The social-housing developments were required to provide a percentage of housing designed specifically for ageing and disabled tenants (Queensland Government, 2008). Private-housing developments had no requirements. Ten per cent of the housing within ULDA multi-unit developments was required to comply with the in-house access guidelines (Urban Land Development Authority, 2011). See Figure 1 for a description of the dwellings in their housing contexts.

Each dwelling was visited at the time of practical completion prior to occupation, at which time each feature was photographed and documented. These data were then compared with the contract drawings and specifications. The interviewer then invited the personnel who best filled the roles of developer, designer and contracted builder to participate in an hour-long interview. Each of the twenty-eight interviewees discussed the eight features and accounted for the provision (or lack of provision) of the eight features as outlined in the Livable Housing Design visitable standard (see listed above).

The analysis of the data consisted of three steps:

1. Analysis of the interviewees' accounts; that is, what they thought of the individual features in the visitable standard;
2. Analysis of the features, taking into consideration the interviewees' accounts, the contract documents and the researcher's observations of the dwellings; and
3. Identification of the reason why the feature was or was not provided. These were grouped into themes and categories within the themes.

This last step is illustrated by the analysis of the change of level into the bathroom in a social-housing apartment. The dwelling was a one-bedroom unit in a social-housing development, funded by the Nation-Building Economic Stimulus Plan (Australian Government, 2009). The funding agreement required all the dwellings to "facilitate better access for persons with disability and older people where appropriate" (p. 22) and, to this end, some access features were specified. The specifications omitted the requirement of internal step-free transitions. The result was a step of 30mm into the bathroom (see Figure 2).

The designer explained why the 30mm step occurred:

> That is the cheapest way of building in apartments, unfortunately. Structurally, what it means is that concrete structural slab just goes through and, on top of that, they just put the topping slab to get the falls to the floor waste—cheap and nasty. To actually get the set-downs for the bathrooms is quite expensive—because we have 30mm on top of the structural slab we can take out 10mm for the shower to work which is how we achieved that. But to actually take out the 30mm out of the structural slab would add a lot of cost to the project.
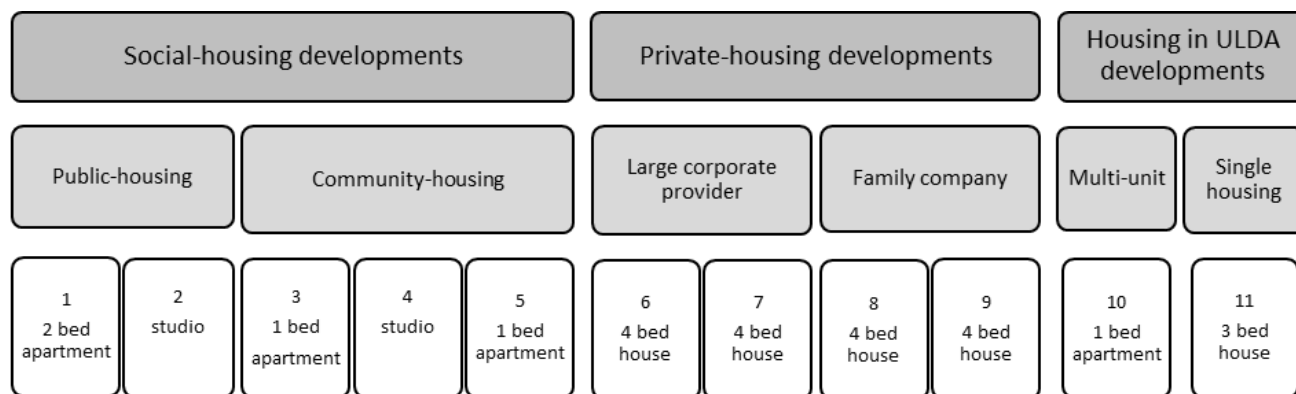
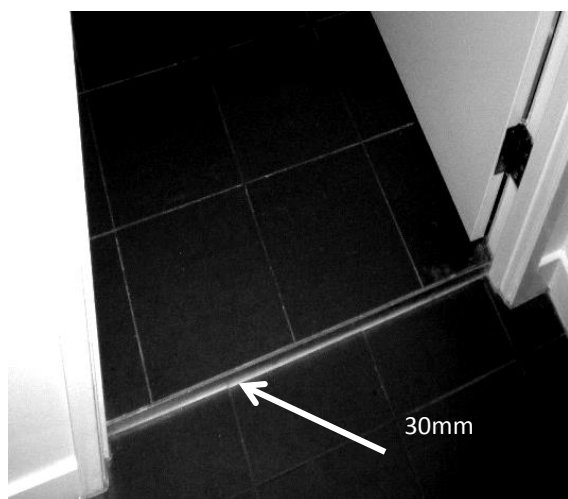**Figure 1.** Description of dwellings in their housing contexts.

Figure 2. Step into the bathroom.

The construction of this step may have been due to a conscious assumption that the future users would not require a step-free entry; however, given the overall intention of the dwelling to be "universal" and the reason offered above for providing the step ("cheap and nasty" building solution), the researcher interpreted that this feature was provided as a result of a "lack of thought" about the outcome of the builder's usual practice.

4. Findings

Overall, thirty-nine of the total of eighty-eight features (eight features in the eleven dwellings) or 44% complied with the Livable Housing Design visitability guideline. The compliant features were evenly spread over the different housing contexts and there was consistency in compliance for some features. Regardless of the differing purposes for the housing contexts, the building practice and logic behind it were similar (see Table 1).

No dwelling provided all the visitable features, and no single feature was provided consistently in all of the dwellings. The incidence of compliant features was relatively even across all housing contexts, regardless of

the dwelling's context, cost, or size. No single-housing context stood out as providing more features above the others. Some features were more prevalent than others; for example, the step-free access to an entry door was provided in most cases because the dwellings had either driveways to internal garages or lift access. On the other hand, reinforcement in the walls of the bathroom and shower was provided in only two dwellings—where it was a funding requirement. Two themes emerged for non-compliance—"lack of thought" and "otherness", and three themes for compliance—"fashion", "requirement" and "cost-effectiveness". These are now described:

4.1. Non-Compliance—Lack of Thought

The interviewees explained that some features did not comply because they "forgot" or they simply did not consider how it would result. This unconsciousness about what they were doing or the consequence for the users was identified in two places: a small step into the dwelling, and the transition from the corridor into the bathroom (see Table 2).

For each feature, the built-form differed from the design because of expedient building practice or imprecise specification. The design of the bathrooms suggested a step-free transition; however, the construction resulted in a small lip of between 30–50mm. An example was the 30mm lip at the entry of the bathroom of a social-housing dwelling, which was meant to be designed to universal design principles as part of the Nation-Building Economic Stimulus Plan. The designer of a private house explained why the step into the bathroom had resulted; he said: "Oh, I think we forgot to lower the slab". Three social-housing apartments had a 30mm step at the front door for a similar reason; the finished floor level external to the dwelling did not align with the finished floor level inside the dwelling even though the contract documents did not indicate a step (see Figure 3 as an example).

Table 1. Distribution of compliant features.

Dwelling	Social-housing					Private-housing				ULDA	
	1	2	3	4	5	6	7	8	9	10	11
Access to dwelling											
Entry											
Car space											
Doorways/corridors											
Toilet											
Shower											
5mm transitions											
Reinforcement											

■ visitable feature provided   ▨ visitable feature not provided

Table 2. Non-compliant features due to "lack of thought".

Dwelling	Social-housing					Private-housing				ULDA	
	1	2	3	4	5	6	7	8	9	10	11
Access to dwelling											
Entry	▢	▢	▢			▢	▢	▢			
Car space											
Doorways/corridors											
Toilet											
Shower											
5mm transitions		▢	▢	▢			▢				
Reinforcement											

▢ Feature not provided due to "lack of thought"

Figure 3. Entry with 30mm lip.

All the single-family dwellings provided a step-up into the house from the internal garage. This was due to a traditional and outdated building practice. A developer explained:

It's actually an expense to incorporate that step…because you are not required to have it. It was more the type of termite barrier that we provide, um, which has a step-down—so we have a physical barrier—a visual barrier, um, and it works very sweetly with the car access as it actually sits down 86 ml from the house slab–it's the only reason why the step's there.

4.2. Non-Compliance—"Otherness"

The interviewees' responses to the rest of the features that were non-compliant suggested a conscious decision that visitability would not be necessary; that is, people with mobility limitations would not be residing or visiting the dwellings (see Table 3).

This was the largest theme and three categories or reasons were identified. The first category was that the cost of the dwelling was given priority over the access needs of prospective minority groups. The developer of ULDA housing explained his decision to make the corridors and doorways narrow: "It's mainly the corridor widths that have to increase and things like that, that decrease the efficiency of our floor plans—that's the big concern". The developer of a social-housing dwelling argued that cost could not be compromised by the needs of a small minority group:

And again, you got to say—what's it really trying to achieve? Is it for a wheelchair access? But you got to look at, you know, the people that live in units, how many are in a wheelchair? I mean, what's the real [number]? And yet, you don't want to take someone's right away to live in that but it's—you can't design a whole building for the—that's where the cost gets, gets out of whack.

The second category was that the prospective buyer would not consider visitability to be a priority. The developer of a four-bedroom house explained why he was unwilling to widen the corridor: "The houses have got to become bigger, or have smaller rooms. So that's a big factor—the people won't like it—the clients". The third reason was an assumption that the occupants would be ambulant. A privately-developed house had steps designed into the corridor to the main living area. Its developer considered his dwelling did not require accessibility: "The public-housing sector does actually look after those people—with specific-designed homes. I know that because I have quoted on them".

4.3. Compliance—Fashion

Interviewees reported they provided some features because they were considered to be fashionable or aspirational. These features occurred in private and ULDA developments and were absent in the social-housing developments (see Table 4).

The private and ULDA dwellings, for example, provided wide driveways to internal garages that were suit-

able for wheelchair access. A number of these dwellings also had at least one bathroom which could accommodate a step-free shower and the pre-requisite space in front of the toilet. A developer of private housing said: "A lot of those items are, from an architect's perspective, from an architectural style, largely aspirational". These features were not provided to improve access for people with disability; rather, accessibility was an unintentional consequence of a fashion trend.

4.4. Compliance—Client Requirements

This theme identified that features were provided because they were contract requirements of the dwellings. They were found in the social-housing and ULDA dwellings only. No features within this category were found in privately-developed housing (see Table 5).

Table 3. Non-compliant features due to "otherness"

Dwelling	Social-housing					Private-housing				ULDA	
	1	2	3	4	5	6	7	8	9	10	11
Access to dwelling	■	■									
Entry			■	■				■			
Car space											
Doorways/corridors	■	■		■	■	■	■	■	■	■	■
Toilet		■	■	■			■	■		■	
Shower		■						■			■
5mm transitions							■	■	■		
Reinforcement	■	■		■		■	■	■	■	■	■

☐ Feature not provided due to "otherness"

Table 4. Compliant features due to "fashion".

Dwelling	Social-housing					Private-housing				ULDA	
	1	2	3	4	5	6	7	8	9	10	11
Access to dwelling						■	■	■	■		■
Entry										■	
Car space						■	■	■	■		
Doorways/corridors											
Toilet						■		■			
Shower						■	■		■	■	
5mm transitions								■			■
Reinforcement											

■ Feature provided due to "fashion"

Table 5. Compliant features due to client requirements

Dwelling	Social-housing					Private-housing				ULDA	
	1	2	3	4	5	6	7	8	9	10	11
Access to dwelling											
Entry											
Car space	■	■								■	
Doorways/corridors			■								
Toilet											
Shower			■	■							
5mm transitions											
Reinforcement			■	■							

■ Feature provided due to client requirements

Two social-housing dwellings were built with government funding which required the provision of a step-free shower and reinforcement in the walls of every bathroom in the development (Australian Government, 2009). A designer described the influence of the funding guidelines; once a feature became a condition of the contract, it was provided without question: "[Not complying] hit people in the back pocket, and they feel it and it hurts". The builder indicated that the purpose behind these extra building requirements was of little interest as long as they were included in the contract; if a feature was required, then it was provided:

> Well, we just do what's on the plans—if we are told to do it, we do it. And we don't argue. If we are told to do it, we do it. There's no big deal, as long as you know you're doing it beforehand.

4.5. Compliance—Cost-Effective Practice

In this theme, the interviewees identified that the features were provided at the discretion of the housing provider. They were not required by the funder, nor were they considered aspirational; rather, they were provided because they were considered to be cost-effective (see Table 6).

Three categories of reasons were identified. The first category was that they chose to provide access features in readiness for possible legislative changes. Some interviewees understood that legislative changes were imminent (they were enacted during the study), so they chose to provide the features ahead of time, rather than having to make changes later. The builder of social-housing dwelling explained:

> So, particularly with the type of construction that [we do], which is the multi-unit developments, the requirements for us to meet the design code and obviously building approvals, et cetera, are actually required to build…for access and egress for people with disabilities.

The second category was that it was cost-effective practice to repeat throughout the whole development any "special" features that were required in some of the dwellings. This practice occurred in some social-housing dwellings which were adjacent to dwellings specially designed for people with physical disability. The mainstream apartments of a ULDA development had the same entry detail as the accessible apartments. The designer explained how the development company considered the provision of access features:

> I believe [the features are] fairly logical, so I don't believe it—for the most part—it's not very onerous on a client or a builder or a developer or anything like that at all. So wherever we can provide beyond a minimum is a good thing and I think that's good design generally.

The third category was that the provision of access features aligned with good building-practice. With regard to step-free entry to a bathroom, a builder explained:

> Dropping the slab [for drainage in the bathroom], it is standard practice for us, just for waterproofing purposes…We've never had any issues down the path with waterproofing, um, because we have gone over and above what was required.

In summary, when providing the eight features for visitability, the interviewees identified two themes for non-compliance ("lack of thought" and "otherness") and three themes for compliance ("fashion", "requirement' and "good practice"). Although all dwellings provided some features, no dwelling provided a coherent path of travel necessary to make a dwelling visitable. Some examples of this incoherence were: a step-free driveway which led to a step at the door; a wide front door which led to a narrow corridor; and a narrow internal doorway which did not allow entry of a wheelchair to a spacious bathroom. The provision of these access features separately and severally did not provide visitability as an outcome in any of the dwellings.

Table 6. Compliant features due to cost-effective practice.

Dwelling	Social-housing					Private				ULDA	
	1	2	3	4	5	6	7	8	9	10	11
Access to dwelling			■	■	■					■	
Entry											
Car space			■	■	■						
Doorways/corridors											
Toilet	■										
Shower	■			■							
5mm transitions	■			■						■	
Reinforcement											

■ Feature provided voluntarily due to cost-effective practice

5. Discussion

Although this study was limited in size and scope, the five themes identified for providing and not providing the individual features of Livable Housing Design agreement's visitability guideline reflect previous research in this area (Bringolf, 2011; Imrie, 2006; Nishita et al., 2007). These findings extend this knowledge by identifying patterns of provision or non-provision of the individual access features, and these patterns suggest the following:

- The over-riding culture within the housing industry defines the quality of design and detailing, disregarding the policy intentions underpinning the housing context (in this study, private developments, increased supply of affordable housing and social-housing for people in need);
- Many individual access features are currently provided in mainstream housing; however, they are provided sporadically and incoherently, and do not lead to visitability; and
- Current practices will not provide visitability until its purpose towards social inclusion is understood by everyone; and is required as part of the contractual arrangements.

The findings suggest that within the housing industry three logics-of-practice prevail: optimal profit at the point-of-sale; resistance to change generally; and deference to external regulators for direction on broader policy impacts such as social inclusion. These logics-of-practice offer some insight into why the voluntary approach of the Livable Housing Design agreement in its current form will fail, and what might assist to reach the 2020 target.

5.1. Optimal Profit at the Point-of-Sale

A reason for not providing the features was the assumption that prospective buyers do not and will not require visitability; that those who do need it are not part of their market or will be catered for elsewhere. This supports previous research by Bringolf (2011), Imrie (2006) and Nishita et al. (2007) and is a reflection of the acceptance of the exclusion of people with disability and older people in Australian culture (COTA, 2010; National People with Disabilities and Carer Council, 2009). Nevertheless, the interviewees were willing to provide visitable features if it benefitted their practice and led to optimal profit at the point-of-sale.

The Livable Housing Design agreement appears to have missed this point. The current strategies of information, awareness-raising and accreditation are unlikely to transform their established practice until there is a profit incentive to do so. The study showed that where financial gain was contingent on the provision of certain features, they were provided without question. Perhaps if the accreditation of dwellings resulted in clear financial benefits either to the housing provider or to the buyer as is the case in Japan (Kose, 2003), the housing industry might respond.

5.2. Resistance to Change Generally

There was no suggestion that the individual features were difficult to build; rather, the reasons for non-compliance identified entrenched building practices and unconsciousness of the consequences of current building practices for users. The interviewees' reluctance to transform their practices appeared more an issue of "risk" than one of cost or difficulty, reflecting Bringolf's (2011, p. 281) domino theory and Imrie's findings that once housing providers were required to change they were unlikely to return to old building practices (Imrie, 2006, p. 123).

A recent analysis by Dalton, Wakefield, et al. (2011, pp. 39-47) suggests the Australian housing industry practices deal with far more costly issues, such as, lengthening construction times, managing demand for a greater variety of add-ons, the scheduling of a large number of contracts and suppliers, and the rectification of poor-quality work. To change practices to provide visitable features appears minor in comparison to these other challenges. This suggests a wide-ranging resistance to change, which the Livable Housing Design agreement appears to have underestimated. The housing industry requires a compelling reason to change what currently works, and the knowledge that the individual features are doable and cost-effective within the current business environment is simply not enough. Perhaps if the industry leaders who signed the Livable Housing Design agreement demonstrated how Livable Housing Design could be adopted into their practices without negative impact, this might convince others that the level of risk is small and can be contained without affecting their profit margin.

5.3. Deference to an External Regulator for Direction on Social Inclusion

Previously noted, when the features were obligatory, the interviewees complied, incorporating them into their building practices cost-effectively, and without question. This supports the argument by Dalton, Chetri, et al. (2011) that the housing industry in Australia has traditionally handed over the responsibility to meet community standards to regulators through a regulatory regime, and focuses on providing a competitive product within those constraints. This challenges Livable Housing Design agreement's assumption that the housing industry will voluntarily transform for reasons of social inclusion.

Within its limited size and scope, this study antici-

pates the failure of the Livable Housing Design agreement to reach its 2020 target. Given the logics-of-practice identified, a transformative plan would require three elements: the first is a significant financial incentive to encourage early-adopters to build and buy visitable housing; the second is demonstration by industry leaders that the changes in practices have minimal risks; and, the third is regulation for visitability in all new housing within the National Construction Code to ensure the 2020 target is met. To hope that the Livable Housing Design agreement might guide best practice in inclusive design is reasonable; to rely on it in its current form to increase social inclusion is fanciful.

6. Conclusion

The Australian Government has a human rights obligation to increase the supply of visitable housing with the intent to improve social inclusion, and, given Australia's comparative affluence and growth, it is obliged to act within a reasonable timeline. To this end, it must ensure the Livable Housing Design agreement's 2020 target is met. It is clearly preferable to do this with the support of all stakeholders, including community and housing industry representatives involved; however, this paper argues that the 2020 target will not be met without government intervention.

A new approach is required. The Australian Government has three options: it can ignore its human rights obligations to improve social inclusion through housing design; it can financially incentivise the housing industry to respond voluntarily to the Livable Housing Design agreement; or it can ensure the 2020 target is met by working decisively with housing industry and community leaders towards the regulation of minimum access features in all new housing through the National Construction Code.

Acknowledgements

The researchers acknowledge the interviewees within this study who candidly and openly explained the reasoning behind their design and building practices.

Conflict of Interests

The authors declare there are no conflicts of interest.

References

Australian Bureau of Statistics. (2010). Disability, ageing and carers, Australia: Summary of findings. Retrieved from http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/9C2B94626F0FAC62CA2577FA0011C431/$File/44300_2009.pdf

Australian Government. (2009). *Social-housing initiative guidelines: Element 1-new construction. Nation*

Building Economic Stimulus Plan. Canberra: Australian Government.

Australian Government. (2010). *Disability (access to premises-buildings) standards 2010: Disability Discrimination Act 1992*. Canberra: Australian Government.

Australian Government. (2011a). *2010–2020 National Disability Strategy: An initiative of the Council of Australian Governments*. Canberra: Commonwealth of Australia.

Australian Government. (2011b). *Our Cities, Our Future: a national urban policy framework for a productive, sustainable and liveable future*. Canberra: Department of Infrastructure and Transport. Retrieved from http://www.infrastructure.gov.au/infrastructure/mcu/files/Our_Cities_National_Urban_Policy_Paper_2011.pdf

Australian Institute of Health and Welfare. (2013). *Housing assistance in Australia 2013*. Canberra: Australian Government.

Australian Network for Universal Housing Design. (2013). Home Page. Retrieved from http://www.anuhd.org

Beer, A., & Faulkner, D. (2008). *The housing careers of people with a disability and carers of people with a disability Southern Research Centre*. Adelaide: Australian Housing and Urban Research Institute.

Beer, A., & Faulkner, D. (2009). *21st century housing careers and Australia's housing future. AHURI Final Report No. 128*. Retrieved from http://www.ahuri.edu.au/nrv/nrv2/NRV2_Assoc_Docs.html

Brewerton, J., Darton, D., & Foster, L. (1997). *Designing Lifetime Homes*. York, UK: Joseph Rowntree Foundation.

Bringolf, J. (2011). *Barriers to universal design in housing*. Sydney: Urban Research Centre, College of Health and Science. Retrieved from http://handle.uws.edu.au:8081/1959.7/506910

Civil Society Project Group. (2012). *Disability rights now: Civil society report to the United Nations Committee on the rights of persons with disabilities*. Sydney: Disability Representative, advocacy, legal and human rights organisations.

Concrete Change. (2003). Visitability defined. Retrieved from http://concretechange.org/visitability/visitability-defined/

COTA. (2010). *Taking older people seriously: COTA Australia's federal election platform 2010*. Adelaide: COTA.

Crabtree, L., & Hes, D. (2009). Sustainability uptake in housing in metropolitan Australia: An institutional problem, not a technological one. *Housing Studies*, *24*(2), 203-224.

Dalton, T., Chhetri, P., Corcoran, J., Groenhart, L., & Horne, R. (2011). Understanding the patterns, characteristics and trends in the housing sector labour force in Australia. *AHURI Positioning Paper, no.142*.

Melbourne: AHURI.

Dalton, T., Wakefield, R., & Horne, R. (2011). Australian suburban house building: industry organisation, practices and constraints. *AHURI Positioning Paper, no. 143*. Melbourne: AHURI.

Disability Investment Group. (2009). *The Way Forward*. Canberra: Australian Government.

Housing Industry Association. (2010). Submission by the Housing Industry Association to the Department of Planning and Community Development on the regulatory impact statement into visitable and adaptable housing. Retrieved from http://hia.com.au/media/~/media/Files/MediaMicrosite/Submissions/Visitable%20and%20Adaptable%20Housing%20-%20Victoria.ashx

Housing Industry Association. (2011). Accessibility in residential buildings. Retrieved from http://hia.com.au/hia/content/Policy/region/National/classification/Building%20Policy/article/IS/HP/Accessibility%20in%20Residentail%20Buildings.aspx

Imrie, R. (2003). Housing quality and the provision of accessible homes. *Housing Studies*, *18*(3), 387-408.

Imrie, R. (2006). *Accessible housing: Quality, disability and design*. London: Routledge.

Jones, A., de Jonge, D., & Phillips, R. (2008). The role of home maintenance and modification services in achieving health, community care and housing outcomes in later life. *AHURI final report, no.123*. Brisbane: AHURI.

Judd, B., Liu, E., Easthope, H., Davy, L., & Bridge, C. (2014). Downsizing amongst older Australians. *AHURI Final Report No.214*. Melbourne: AHURI.

Judd, B., Olsberg, D., Quinn, J., & Demirbilek, O. (2010). Dwelling, land and neighbourhood use by older home owners. *AHURI final report No. 144*. Melbourne: AHURI.

Karol, E. (2008). Inclusive design and the new home market: The West Australian situation. *Architectural Science Review*, *51*(1), 80-83.

Kose, S. (2003). The Japanese Experience. In P. Clarkson, R. Coleman, S. Keates & C. Lebbon (Eds.), *Inclusive Design: Design for the whole population* (pp. 308-316). London: Springer-Verlag.

Kose, S. (2010). How can the exploding senior population be accommodated? Japanese struggle towards inclusive design. *Journal of Engineering Design*, *21*(2), 165-171.

Livable Housing Australia. (2012). Home Page. Retrieved from http://livablehousingaustralia.org.au/

Livable Housing Australia. (2013). Livable housing update: December 2013. Retrieved March 12, 2014, from http://us7.campaign-archive1.com/?u=07c19bd51a6060a51154a75fa&id=68b89b30fc

Livable Housing Australia. (2013). *NRAS Applicant and Participant Information*. Sydney: Livable Housing Australia.

Maisel, J. (2006). Toward inclusive housing and neighborhood design: A look at visitability. *Community Development, 37*(3), 26-34.

Malloy, R. P. (2009). Inclusion by Design: Accessible Housing and Mobility Impairment. *Hastings Law Journal*, *60*(4), 699-699.

Milner, J., & Madigan, R. (2001). Politics of accessible housing in the UK. In C. Holland & S. M. Peace (Eds.), *Inclusive housing in an ageing society: innovative approaches*. Bristol: Policy Press.

Murray, S., Ramirez-Lovering, D., & Whibley, S. (Eds.). (2008). *reHousing*. Melbourne: RMIT Publishing Press.

National Housing Supply Council. (2011). *Key findings of the 2011 state of supply report*. Canberra: Australian Government.

National People with Disabilities and Carer Council. (2009). *Shut Out: The Experience of People with Disabilities and their Families in Australia*. Canberra: Australian Government.

NDUHD. (2010a). Livable Housing Design guidelines. Retrieved from http://www.dss.gov.au/our-responsibilities/disability-and-carers/program-services/government-international/national-disability-strategy/livable-housing-design/livable-housing-design-guidelines

NDUHD. (2010b). Strategic plan. Retrieved from http://www.dss.gov.au/our-responsibilities/disability-and-carers/program-services/government-international/national-disability-strategy/livable-housing-design/national-dialogue-on-universal-housing-design-strategic-plan

Nishita, C., Liebig, P., Pynoos, J., Perelman, L., & Spegal, K. (2007). Promoting basic accessibility in the home: Analyzing patterns in the diffusion of visitability legislation. *Journal of Disability Policy Studies*, *18*(1), 2-13.

Ozanne, E. (2009). Negotiating identity in late life: Diversity among Australian baby boomers. *Australian Social Work*, *62*(2), 132-154.

People with Disability Australia. (2010). *Accommodating human rights: a human rights perspective on housing, and People with Disability Australia housing and support for persons with disability*. Sydney: People with Disability Australia.

Productivity Commission. (2004). Reform of building regulation. Retrieved from http://129.3.20.41/eps/othr/papers/0506/0506007.pdf

Productivity Commission. (2011a). *Caring For Older Australians: Productivity Commission inquiry report*. Canberra: Australian Government.

Productivity Commission. (2011b). *Disability Care and Support: Productivity Commission inquiry report*. Canberra: Australian Government.

Queensland Government. (2008). *Schematic Design Brief: Two-bedroom apartments, adaptable*. Brisbane: Queensland Government.

Saugeres, L. (2010). (Un)accommodating disabilities:

housing, marginalization and dependency in Australia. *Journal of Housing and the Built Environment*, *26*(1), 1-15.

Spanbroek, N., & Karol, E. (2006). Ageing at home-are we prepared? Paper presented at the 2nd International Conference for Universal Design, 23-25 October 2006, Kyoto, Japan.

Standards Australia. (1995). *Adaptable housing AS4299*. Sydney: Standards Australia.

Truesdale, S., Steinfeld, E., & Smith, E. (2002). Visitability: An approach to universal design in housing. Buffalo, USA: Rehabilitation Engineering Research Center on Universal Design, School of Architecture and Planning, University at Buffalo.

United Nations. (2007). Convention on the rights of persons with disabilities and optional protocol. Retrieved from http://www.un.org/disabilities/default.asp?navid=14&pid=150

Urban Land Development Authority. (2011). *Accessible Housing: ULDA guideline No 2*. Brisbane: Urban Land Development Authority.

Victorian Government. (2010). Accessible Housing: Public consultation on the visitable and adaptable features in housing regulatory impact statement. Retrieved from http://www.dse.vic.gov.au/DSE/nrenpl.nsf/LinkView/10E80E70836F36FBCA2575DE001CFC9EB6D5337005FB3718CA2572CF007A0F0A

Ward, M. (2013). *Inclusive housing in Australia; a question of responsibility and distributive justice* (PhD Thesis). Brisbane: Queensland University of Technology. Retrieved from http://eprints.qut.edu.au/63493

Ward, M., Franz, J., & Adkins, B. (2012). Inclusive housing in Australia: A voluntary response. *Proceedings of World Academy of Science, Engineering and Technology (WASET)*, *67*, 344-352.

About the Authors

Dr. Margaret Ward

Margaret Ward is a Research Fellow at the School of Human Services and Social Work, Griffith University in Brisbane, Australia. She recently completed her doctoral thesis at the School of Design at Queensland University of Technology, Brisbane. Dr. Ward is currently convenor of the Australian Network for Universal Housing Design. Originally a practicing architect in the area of housing, she has had a varied career as a policy writer, service provider and advocate in the areas of social inclusion, housing and disability.

Dr. Jill Franz

Jill Franz is a Professor and Head of Discipline (Interior Design) in the School of Design, Creative Industries Faculty, Queensland University of Technology (QUT). In addition to supervising nine PhD students, Dr. Franz is a Director of the Design for Health and Social Inclusion Research Collective comprising researchers across several faculties of the university undertaking cross-disciplinary collaborative exploration of the relationship between the environment and significant social issues to do with health, wellbeing and social justice.

Article

"Battlers" and Their Homes: About Self-Production of Residences Made by the Brazilian New Middle Class

Priscilla Nogueira

Institute for European Urban Studies, Bauhaus University Weimar, Belvedere Alee 5, 99425 Weimar, Germany;
E-Mail: priscilla.nogueira.haque@uni-weimar.de; Tel: +49-160-96298982

Abstract

The article presents preliminary results and qualitative analysis obtained from the doctoral research provisory entitled "How do Brazilian 'battlers' reside?", which is in progress at the Institute for European Urban Studies, Bauhaus University Weimar. It critically discusses the contradictions of the production of residences in Brazil made by an emerging social group, lately called the *Brazilian new middle class*. For the last ten years, a number of government policies have provoked a general improvement of the purchasing power of the poor. Between those who completely depend on the government to survive and the upper middle class, there is a wide (about 100 million people) and economically stable lower middle group, which has found its own ways of dealing with its demand for housing. The conventional models of planning, building and buying are not suitable for their technical, financial and personal needs. Therefore, they are concurrently planners, constructors and residents, building and renovating their own properties themselves, but still with very limited education and technical knowledge and restricted access to good building materials and constructive elements, formal technicians, architects or engineers. On the one hand, the result is an informal and more or less autonomous self-production, with all sorts of technical problems and very interesting and creative spatial solutions to everyday domestic situations. On the other hand, the repercussions for urban space are questionable: although basic infrastructure conditions have improved, building densities are high and green areas are few. Lower middle class neighbourhoods present a restricted collective everyday life. They look like storage spaces for manpower; people who live to work in order to be able to consume—and build—what they could not before. One question is, to what extent the latest economic rise of Brazil has really resulted in social development for lower middle income families in the private sphere regarding their residences, and in the collective sphere, regarding the neighbourhoods they inhabit and the urban space in general.

1. Introduction

Considering architecture as "all spaces modified by human work" (Kapp, 2005), ordinary architecture can be considered the architecture of the commons, not that of institutional buildings and big projects. In this case, the best term to define it is "popular", whose Latin origin is "the group of citizens which exclude, on the one hand, the most privileged patricians whom was reserved the Senate and on the other, the less fortunate, the plebs, the dispossessed, (...) typical from the intermediate layers of the population" (Weimer, 2005)—buildings with no distinctive value for the architecture field.

Services traditionally provided by architects and

formal models of planning and building are not suitable for the everyday needs of most popular clients, who are still typical self-producers in Brazil (Nogueira & Kapp, 2010), being concurrently planners, constructors and residents, building and renovating by themselves. Although preserving some level of autonomy, they normally present limited education and technical knowledge and restricted access to resources and formal technicians. On the one hand, architects are recognised as distant and unhelpful luxury professionals occupied with big projects, providing products only understandable for specialists. On the other, despite problems with building techniques, materials and manpower, self-production practices have reached a very high demand, not concerned by the architectural field and not supplied by any government sector and social housing institution in Brazil.

For the last ten years, a number of socioeconomic policies have provoked a general improvement of the purchasing power of the poor, part of a government strategy of economic growth. Between those who completely depend on the government to survive and the upper middle class, there is a wide (about 100 million people) and economically stable young middle group that "(...) works 10 to 14 hours a day, has two or more jobs, studies at night, works during the day and lives to work and to consume what they could not buy before. (...) these people come from structured families with a strong work ethic and perseverance. Unlike the real middle class, they have little embodied cultural capital, making their lifestyle and consumption patterns essentially different from the established middle class." (Souza, 2010a, translated by the author)

This population has always found own ways of dealing with their demand for housing, since government policies are not able to attend to them. Nowadays they can afford goods and services that were not possible before, including regular and irregular pieces of land, apartments, houses and building materials. On the one hand, we can see informal and more or less autonomous self-production with all sorts of technical problems and interesting and creative spatial solutions for everyday domestic situations. On the other, although basic urban infrastructure conditions like paving, public sanitation and illumination have improved in *favelas* and distant neighbourhoods, the urban environment's quality is questionable. The private sphere became better, but still public places are spatially poor, with high constructive densities, few green areas and restricted collective everyday life. Lower middle class neighbourhoods look like storage spaces for manpower; people who live to work in order to be able to consume—and build—"what they could not buy before" (Souza, 2010b).

Although this phenomenon suggests the existence of a high demand for housing, instead of looking for so-

lutions, this paper focuses on analysing how this social group produce and reside, analysing five main issues, regarding social practices: (a) spontaneity of planning and building processes; (b) transformation and the use of the residence as an extra income source; (c) technical challenges of building, (d) creative use of the space and e) ordinary public spaces. Those aspects are discussed over a background of an emerging country claiming social development under a socioeconomic context safer than fifteen years ago. Besides this, this work considers to what extent the latest economic rise of Brazil, from 2003 to 2011 and the generation of this new social class has really resulted in social development in the private sphere, regarding residences, and in the collective sphere, regarding the neighbourhoods which people inhabit.

The field work for the PhD research which gives rise to this article lasted three months, from August to November 2013, and took place in Belo Horizonte and its metropolitan area, a 5 million person urban agglomeration, distributed in 9.467.797km^2 in the southeast of Brazil (see Figures 1 and 2). The term "battler", used in the provisory title of the PhD dissertation, is a reference to the work of Professor Jessé Souza, a Brazilian sociologist who provides a sharp analysis of the origins and social practices that produce and reinforce social inequality. According to him, the new social group should not be understood as a middle class, but as a "new precarious working class" (Souza, 2010b), with reduced educational and social capital (Bourdieu, 2007).

The social distinction represented by the possession and lack of economic and non-economic capital strongly manifests itself and influences Brazilian everyday life in education and health care systems, the structure of families, religious practices, the electoral process, the cultural industry and also the production of space, from residences to whole cities. Although the approaches of the French sociologist Pierre Bourdieu and Professor Jessé Souza are the most important theoretical basis for the present investigation, some statistical parameters are useful to locate the new social group in the Brazilian social pyramid. According to FGV (Fundação Getúlio Vargas), one of the most relevant statistical research institutes in the country, the Brazilian new middle class comprised more 39.6 million Brazilians, who had risen from classes "D" (monthly income between about U$330 and U$530) and "E" (the poorest, with monthly income up to about U$330)to class "C" between 2003 to 2011. Class "C" families present incomes between about U$530 and U$2.280 per month. In 2011 more than a half of all Brazilians belonged to this lower middle group (50,05%), about 100.5 million people. Optimistic economic research institutions estimate that they will make up about 60% in 2014, as can be observed in Figure 3 (Neri, 2011).

Figure 1. Belo Horizonte, Minas Gerais, Brazil. Source: www.wikipedia.org/minasgerais

Figure 2. Overview of Belo Horizonte. Source: www.wikipedia.org/belohorizonte
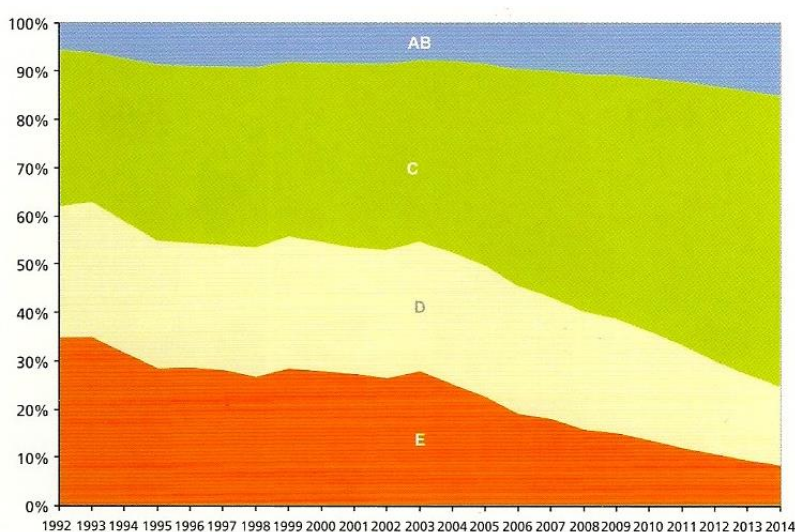
Figure 3. Social classes' distribution 1992–2014. Source: PCS/PGV, based on microdata from PME/IBGE. (Neri, 2011, p. 294)

2. Research Methods

The methods used for field research were based on oral history (Leavy, 2011). They combined unstructured interviews with participative observation in "battler" families' residences (Descombe, 2003). The main idea of this research strategy was to achieve an honest and spontaneous dialogue (between the researcher and the research object), instead of "question-answer" interviews or isolated observations of the researcher without input from residents and neighbours. The aim was to get as much information as possible, both oral and visual, without forcing quick feedback or pressuring people to speak. Therefore, the first precondition for the meeting between researcher and informants was preferably to contact a trustworthy local person, who could introduce one to the other. The second precondition was to rule out direct questions, instead using a guide of investigation topics. In this case, topics were defined by a dialectical exercise, the objective of which was to obtain different perspectives of the central re-

search issue, looking at it from different points of view. The main issue was divided into a first set of investigation items, which were again subdivided. From these, more specific subjects were systematically identified and once more subdivided, as represented in Figure 4. It is expected that this exercise allows the researcher to identify existent controversial and complex relations, which enrich the investigation (Konder, 1981).

Local people were found and contacted through previous and ongoing research carried out by the MOM (Morar de Outras Maneiras, UFMG, Brazil) group. The research group has worked with self-producer and self-builder families in *favelas* and peripheral neighbourhoods since 2005 and has a large list of local contacts, which are open to helping with future research. Some residents that had already taken part of some of the group's activities perfectly fitted the profile of a "battler". They were invited to contribute to the new research and recommended neighbours, relatives or friends with equivalent profiles.
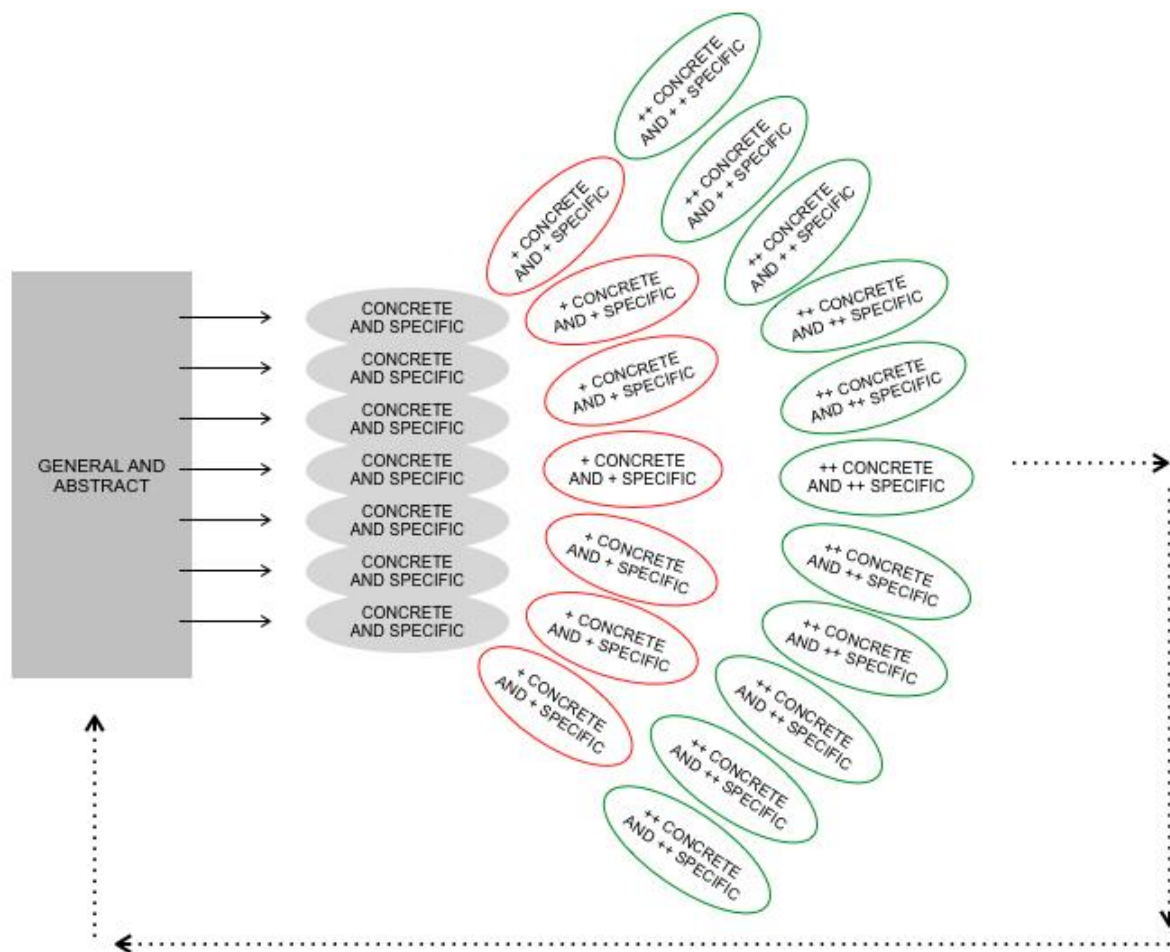
Figure 4. Scheme of dialectical thought. Source: elaborated by the author, inspired by Konder (1981).

So, the availability of informants determined which parts of the city the researcher would go through. Neighbourhoods were not chosen, rather, their inhabitants—those whose socioeconomic conditions and social practices would fit the profile of a self-producer "battler" family—were chosen.

Other investigations in *favelas* have confirmed a high level of spontaneity of locals, which helped the researcher to access information (Grupo de Pesquisa Morar de Outras Maneiras/Universidade Federal de Minas Gerais [MOM/UFMG], 2012). Therefore research topics did not need to follow a sequence during the conversation and interventions of the researcher were maximally avoided. Generally, residents were not shy and after the proposition of an initial conversation topic by the researcher, they easily started telling stories, such as how they arrived in the neighbourhood or about renovations they were currently doing. The conversations were audio-recorded on the speakers and avoid the written reproduction of the speech. An interview is a process, formed by different actions. The moment the researcher listens is not the moment he takes photos or makes notes. Such differentiation is very important to obtain successful feedback. In this case, at first the researcher listened to the informant in a quiet and comfortable place of the residence and recorded all the conversation. Only after that, the researcher

walked through the house, took pictures and recorded videos. During this excursion in the residence and its surroundings, the conversation spontaneously continued and was still recorded. Each visit took approximately one and a half hours. Soon after the visit, the researcher made drawings and sketches in order to keep important details in mind or to highlight remarkable aspects.

Residences and families were organised in clusters, groups of houses in the same neighbourhood. Clusters allowed the investigation of interferences and consequences of self-production in a local scale—a bigger scale than the house and a smaller scale than the city. This organisation was possible because of the local people who were previously known and because of their recommendations. This strategy, called the "snow-ball effect" (Descombe, 2003), legitimates the work and makes it easier to get more participants, in this case preferably those who were building or renovating their homes at the time.

During the field work, 33 self-producer families were visited. This paper discusses social practices of eight families, inhabitants of two clusters in two different neighbourhoods—Aglomerado da Serra and São Joaquim, in Belo Horizonte and in Contagem, a satellite city nearby, respectively. Families will be not presented one by one, but through remarkable social practices that describe how Brazilian "battlers" reside. In both clusters, inform-

ants knew each other and preserved a close relationship. Some of them were relatives, while others had a working relationship or were simply good friends. Their identities will be preserved.

Figures 5 and 6 present each cluster and some of the relationships among residents. Each letter represents a case, defined by a building. As demonstrated, each building can have more than one function. Each building belongs to one family. Each family has one informant, who had received the researcher and informed the research.
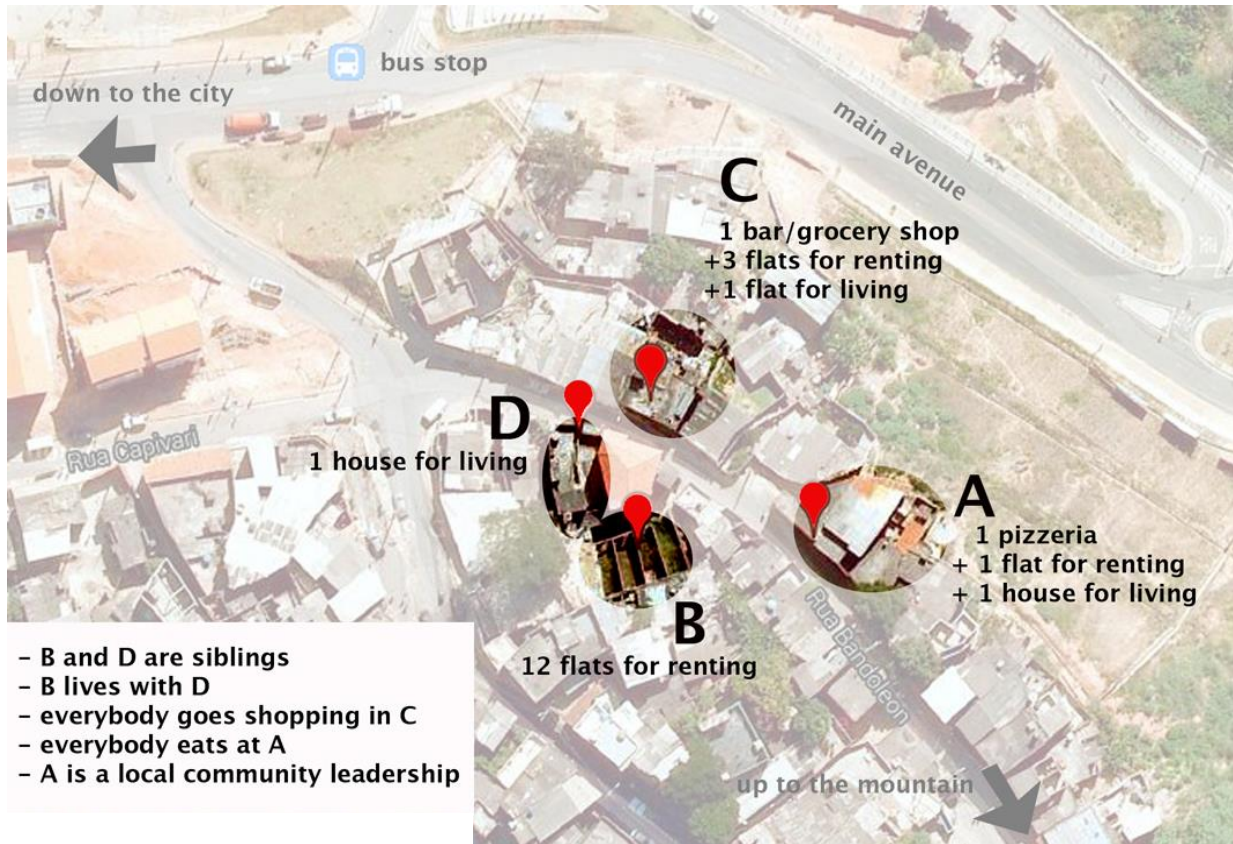
Figure 5. Cluster Aglomerado da Serra, Belo Horizonte. Buildings are unfinished, with some work or renovation still on course. Source: elaborated by the author, 2014.

Figure 6. Cluster São Joaquim, Contagem. Buildings are unfinished, with some work or renovation still on course. Source: elaborated by the author, 2014.

3. How Do Brazilian "Battlers" Reside?

3.1. General Aspects of the Territory

Normally "battlers" live in irregular lands in long-established slums, relatively well connected to the city centre and with a tolerable infrastructure and in peripheral neighbourhoods in formal subdivisions provided with infrastructure, but still with a reduced level of urban services, schools, social and health care and entertainment options. In any situation, "battlers" self-produce their residences, from building new additions and complete new houses to renovations of existing spaces. Although formal apartments are finished products offered on the real estate market, they are also objects of self-production processes, since inhabitants change internal spaces and building materials to attend to their needs.

One cluster is located in one of the eight *vila*s (small *favela*) of the Aglomerado da Serra, a long-established 43 thousand-person slum, very well connected to the city centre, with relative good infrastructure conditions and a very strong urban identity (Figure 7). For the last five years, the neighbourhood has been affected by consecutive infrastructure interventions as part of an audacious plan of economic growth and development created by the current federal government. One of the interventions was the construction of a fast transit avenue that crosses the neighbourhood in order to relieve the transportation conditions between neighbouring districts and the city centre. For that purpose, many residences were demolished and families had to be relocated. Some of them had lived there for more than 40 years and had to leave friends and neighbours and change their lifestyles, moving to a far away neighbourhood or to apartment buildings with questionable building quality, built and provided by the state.

The second group of residences is located in a peripheral formal neighbourhood of Contagem, an industrial city of 200 thousand people, located in the metropolitan area of Belo Horizonte (Figure 8). The district,

called São Joaquim, is 10 km away from the city centre of Contagem and about 15 km to the centre of Belo Horizonte. Although it is a typical lower middle class neighbourhood, most people have cars to move around, because of public transportation conditions. There is only one train line and the hilly topography of the region restricts the use of bicycles. About five and a half million inhabitants of the metropolitan area of Belo Horizonte depend on cars and buses for transportation. Streets and avenues cannot support such demand anymore. Traffic jams have become a routine occurrence and it is not by chance that the most common consumerist dream is a private car, strongly influenced by the automotive industry, whose production in Brazil has achieved record levels. The district of São Joaquim is relatively recent—much of the area received infrastructure conditions in the late 70's, when the land was for the first time subdivided and started to be sold. The area is intersected by high tension electrical lines which forbid the private and public use of some areas. There are continuous large empty spaces without any use, but parks and squares simply do not exist. Another problem faced by inhabitants of the neighbourhood is the elevation of the water level during the rainy season. A local river was covered during the formation of the subdivision to give place for new streets. Besides the lack of permeable areas, the water passage is not large enough for the volume of rain water. The results are constant floods, which bring about risks of contamination and multiple problems for the inhabitants.

Another aspect of differentiation among residence situations are building types. They are also quite heterogeneous in slums, where many present different geometries and demand different spatial settings. Although there are so many different shapes and volumes, the use of concrete structures, pre-assembled slabs and clay bricks is dominant. Buildings seem to be unfinished, because few external walls are painted. Front walls are mostly located on the border with sidewalks and streets. As Figure 7 shows, the landscape is an ocean of clay bricks. In peripheral subdivisions, con-

Figure 7. View of Aglomerado da Serra, from the rooftop of A. Source: author's archive, 2013.

Figure 8. Street view of São Joaquim. The green house on the left is H and the yellow front wall on the right is G. Source: author's archive, 2013.

crete structures and pre-assembled slabs also prevail and the use of the space in regular lots, which vary around 360 m², obeys more or less the same geometric patterns because of urban regulations, the selection of building materials available in the market, and the construction techniques commonly used. Pedestrians can rarely see inside the lots, since most of them are protected by high front walls or grills. The unfinished appearance of constructions is the same as in slums, but finished buildings are also found, with very good conditions of construction.

3.2. Socioeconomic Origins

As Belo Horizonte is a young city, with only 116 years of foundation, older generations of inhabitants usually have origins elsewhere. Still today, many families leave their hometowns in the countryside and migrate to big cities looking for a better life. They run away from hunger, bad working conditions and poverty, pursuing the dream of the life in a metropolis, where theoretically there are jobs for everyone. This is a common aspect of families from Aglomerado da Serra. They originated in the north of Minas Gerais and southwest of Bahia, an economically poor region, climatically dry, whose main economic activity still comes from the cultivation of vegetables and some cattle breeding. Big agricultural entrepreneurs have incorporated small properties and the farmers and their families have had to submit themselves to low wages and even worse working conditions. Such an atmosphere collaborates to feed the illusion of a new life, much better than before, and a less exhaustive and clean work. Pursuing this dream, older generations came to Belo Horizonte with no money but hope, and installed themselves in the small huts of *favelas*, bought by family members and friends who had arrived before. The early everyday life in a *favela* was hard but pleasant. Many social practices today come from this time. The intensive collaboration among neighbours and families and the use of any small piece of land for some subsistence farming are still very prominent practices, while the family house grew at the same rate as the family. The father used to build an extra room himself, waiting for the next baby. After 50 years, old huts are today three-floor family houses, many of which still belong to the same families. Over the years many early inhabitants sold their properties to new ones. In all cases, the achievements came step by step and took decades. This is one of the reasons why, for example, traditional methods of building and planning do not suit this population. Even having grown economically, inhabitants are still used to understanding and dealing with a house as a process and not as a finished product. First, successive governments were never able to protect and maintain this population in their hometowns and second, big cities were not and still are not prepared to receive them.

There was and still is a high demand for housing for poor migrants, with few chances to reach formal solutions. At that time and still today, the only possibility is to settle in an informal land. Besides, until the 60's there was no electricity, no piped water or sewage pipe and individuals had to do everything by themselves, bringing water on the top of their heads straight from the springs.

São Joaquim has been provided with basic infrastructure conditions since the beginning, but still the public water distribution system has never been properly dimensioned for the rainy season. Floods are still frequent and cause all sorts of material losses for the inhabitants. The history of the residents is more recent. The families investigated in this study used to live in different parts of the metropolitan area or in the surroundings of the neighbourhood and arrived there in the late 70's, at the beginning of the land's occupation. At that time, the neighbourhood was part of a land provision for low income inhabitants from Contagem. The lots are relatively big, 14 m × 30 m, but at that time cheap, since they are located far away from the city centre and with almost no services nearby. Residents say they were "in the middle of nothing". Most lots were bought with letters of credit and paid over decades, while houses were self-built or self-produced with families' own savings during long periods of time.

Since the first inhabitants of Aglomerado da Serra had almost no education or any other working experience unless farming, they had to take the worst jobs. Most men started working as bricklayers' helpers and women as housemaids, baby sitters or cleaners. Higher education levels have become one of the main objectives for the younger generations of these families nowadays. The pursuit of a degree is a symbol of social status, but also a platform to achieve better working conditions. The life of a typical farming family in the big city is a life exclusively dedicated to work. There is no free time, vacations or holidays. The income from regular jobs is complemented by small services done during weekends and after work. Such efforts have very clear targets—the priorities are education for the children, and the house. Those two topics are extremely significant to the self-esteem of a family under such conditions.

The socioeconomic conditions of the residents of São Joaquim were different. In São Joaquim most of them were not poor. They were employees with low but regular salaries, which allowed them to afford monthly payments for a lot and to initiate the construction of a small house. One of the oldest residents of the cluster in São Joaquim reports that a standard project was given to new residents with the purchase of the lot. Her husband built the house exactly like the drawings. Internal partitions still remain, as in the original sketch, and it was only renovated last year. This lady had had a very difficult time during the 90's, when

her husband got sick for more than a decade and could not work anymore, needing her complete care, which meant they could never invest in the household. Besides this isolated case, most residences in the neighbourhood have been renovated and received new spaces, but in many of them it is still possible to recognise the original model.

All interviewed families, from both clusters, began life in the area sleeping together in only one room, using an outside bathroom with a poor metallic roof, and cooking with small stoves made of stacked bricks. Month after month, having spent the most part of their salary on subsistence items, some food, basic clothes and transportation to go to work, the rest of their earnings were all invested in the household. The roof was changed, tiles installed, the bathroom renovated. One common and very remarkable aspect is how some building materials, like burnt cement on the floor and an asbestos roof, are still today stigmatised as symbols of poverty. People look forward to a solid, clean and safe house, built with "strong" and "long-lasting" materials—concrete slabs and tiles on the floor.

Nowadays, families are quite heterogeneous regarding their structures. One of the families presents a traditional family structure, with father, mother and children. Another is a family of women, where the traditional masculine figure does not exist. Although heterogeneous regarding their structures, both clusters present families with similar socioeconomic conditions. A strong work ethic is very present, often encouraged by neo-Pentecostalism practices, which have guided a certain life path and maintained family unity. There is also a noticeable collaborative atmosphere among family members; everyone contributes somehow to the household from a very young age, undertaking domestic tasks or working late into the night, with almost no vacations or holidays. A very high consumerist impulse can also be noticed, mainly focussed on buying goods that were previously not economically accessible, as well as the pursuit of a better and higher education, at least for the younger generations.

3.3. Social Practices in Self-Production

3.3.1. Residences as Non-Stop Processes

Step-by-step construction is common. At first only one room is completely built, with a separate toilet and an improvised kitchen outside. All family members use this single room for watching TV, dressing, studying and sleeping. Hereafter, different improvements are made step by step, like new additions and toilets inside the house. Case A is a typical example of such a building process, as we can see in Figure 9. The house started to be built in 1974 and is still being renovated. It started with a single-room hut in the middle of the lot, with a toilet outside, a metallic roof and no internal fin-

ishing—no tiles and no painting. After that a new toilet was built and two small patches of land were added to the original lot. Some time after, the whole house was demolished and a new one started to be built, exactly like the first—with one initial hub and consecutive additions along the years. The second house was a "real house", says the informant proudly when describing the "new" house, this time covered with concrete slabs. At that stage, in the 80's, siblings were already working and could invest in the construction, while the mother's wage was used to provide subsistence. The second house underwent more than six renovations and today presents five bedrooms, three living-rooms, a big kitchen and two bathrooms, as well as a backyard, terrace and garage, where six family members live together. They still have new plans for the house and never thought about leaving the neighbourhood.

3.3.2. Residences as Business

A very common practice in low-income districts is the partition of one formal lot in smaller, independent parts. This phenomenon was observed two times in São Joaquim. As lots are relatively large, people often divide them to build housing units for selling or renting. Another strategy is to build on the top of existing houses with independent entrances, also with the purpose of renting or selling. As represented in Figure 10, building E originated from a half-lot and now four housing units for renting have been built. The neighbour, owner of building F, did almost the same. Today he has three housing units, from which two are rented out.

In Aglomerado da Serra some of the first inhabitants sold their plots of land and bought new properties in the same area. Older generations normally do not want to leave the neighbourhood, a feeling that is still present among younger inhabitants. Many of them prefer to invest in renovating the same residence, like the building A, rather than moving to somewhere else. There are also some who want to leave the neighbourhood, but see it as a good place to invest, like the owner of the building B.

Real estate market negotiations are stronger than ever in the informal city, just as in the formal one. Building B (Figure 11) belongs to a young entrepreneur of 33 years old. He started working at 13, when he came from the North of Minas Gerais to live with his sister in Aglomerado da Serra. He seems to have a special talent for business and after working for years as a furniture assembler and seller in a number of different shops and local industries, he decided to start his own business, a furniture shop selling new and second-hand items, in the same neighbourhood. After some time in the business, he bought a tidy piece of land of 150 m², 20 meters away from his sister's house, where he still lives. There, he is currently building a three floor apartment building with 12 housing units. He purpose-

fully decided to go for this kind of enterprise. In his shop, he had the opportunity to get to know his potential tenants, their needs and limitations. In parallel, he learnt that buying land and building to rent out or to sell can be a very profitable investment, surely inspired by big entrepreneurs of the formal city. So, he soon bought some very cheap land from somebody who urgently needed to sell, and started to produce small flats. In the beginning he took a small loan to buy building materials and quickly started to build with no project, architects, licenses, insurance or any kind of for-

mality, only the help of construction workers from the neighbourhood. At first he built only the ground floor. The units were only finished inside, but were quickly rented out. With the extra income, he invested in construction materials to start the second floor. The third floor is about to be finished and there is already a waiting list of potential tenants. Although eight units are already occupied, the building still seems to be under construction. Communal areas have no tiles on the floor, there are no protective railings along the stairs and external walls are stuccoed but not painted.
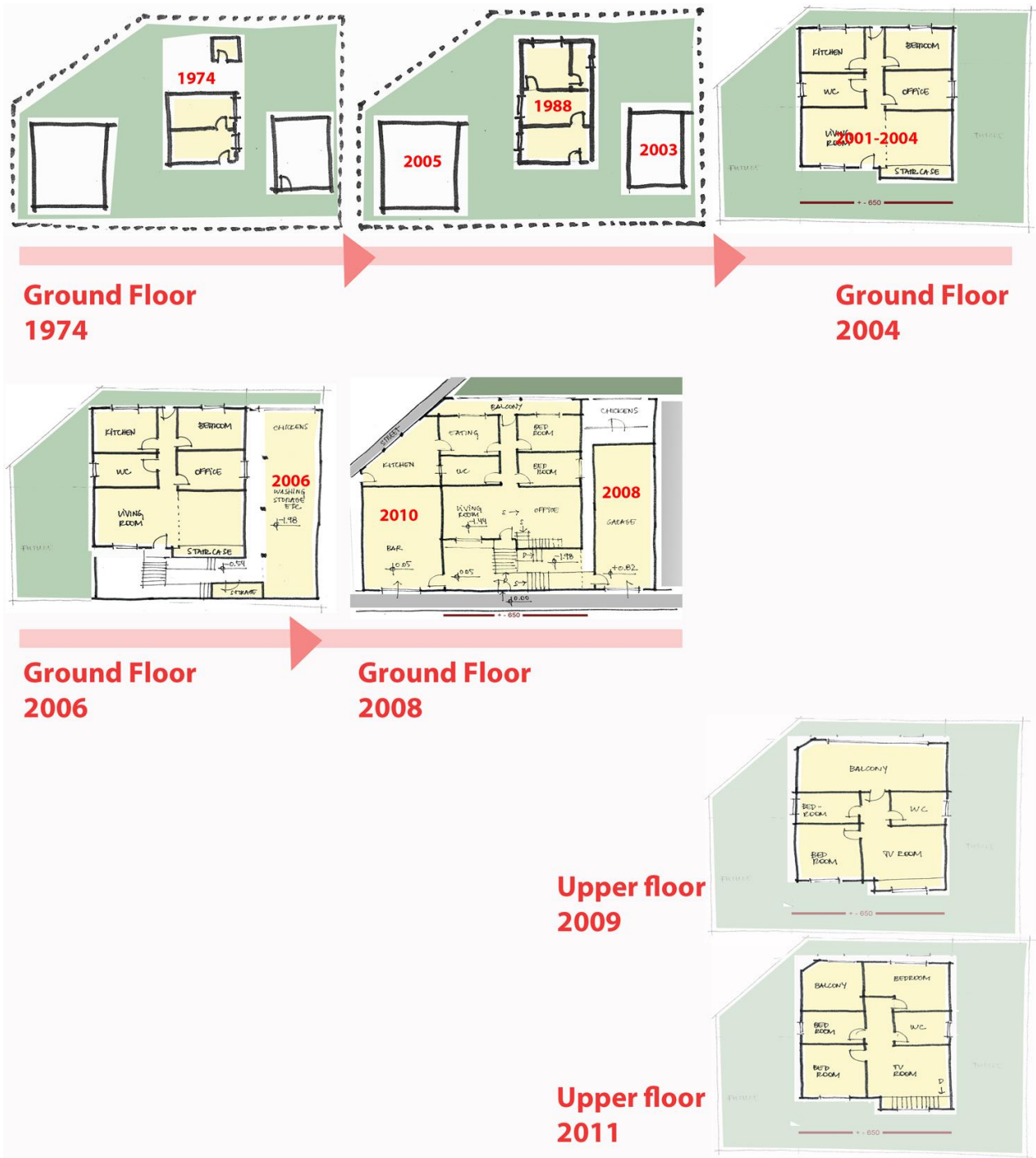
Figure 9. Case A, scheme of the building process. Source: drawing by the author, 2014.
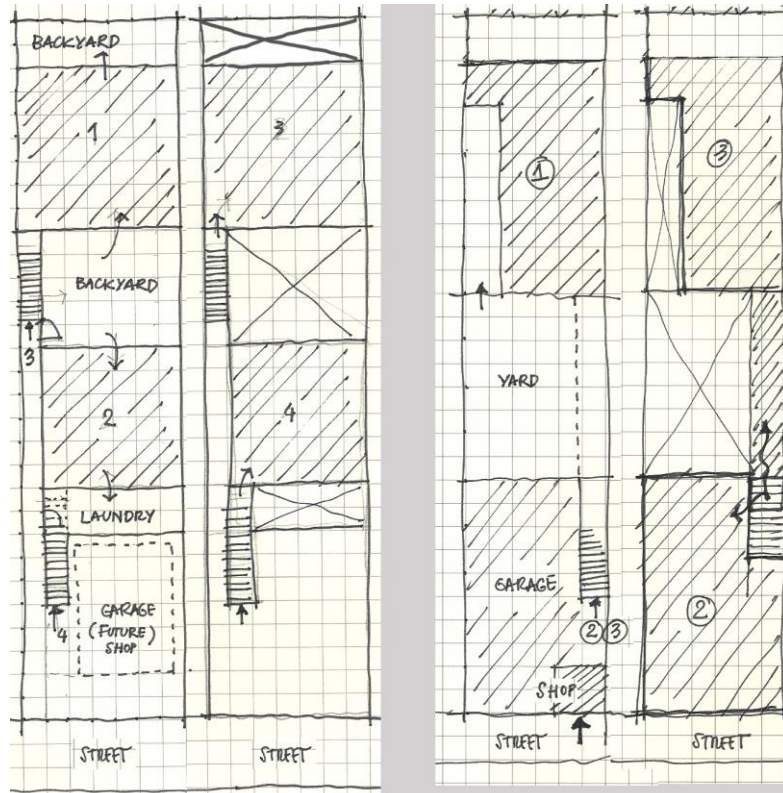
Figure 10. Cases E and F, scheme of distribution of housing units. Numbers represent apartments and arrows represent accesses. Source: by the author, 2014.

Figure 11. Case B, view of the building. Photo taken from the roof-top of the building of the case C. Source: author's archive, 2013.

Building C is another example of a business. In this case, the original house gave host to a grocery shop (Figure 12) on the ground floor, open to the street. It also functions as a bar, offering drinks and homemade food for workers, that quick stop there on their way home. The family lives in one of the two housing units in one of the lower floors. In the upper floor, the family is currently building an apartment, which they expect to rent out. The desire of the main informant, who works every day including weekends from seven in the morning to ten o'clock at night, is to assure her retirement with the rented flats.

Figure 12. Case C, bar and grocery shop. Source: author's archive, 2013.

3.3.3. Residences as Technical Challenges, Exposing Social Problems

In both clusters, residents are confronted by complicated infrastructure problems. Aglomerado da Serra presents specific geomorphologic complications, because of the dense occupancy on the slopes, where three natural water springs which supply the main river of the city are found. Early inhabitants started to occupy the lower parts of the mountain and nowadays the hills are almost completely occupied, even on the upper parts and tops. A number of mudslides have occurred because of the incorrect use of the land practiced by local inhabitants and even by construction companies, which have been hired by the municipality for infrastructure interventions. It is possible to use such areas for housing, but it demands an integrated approach to the use of the land. Especially in this case, old residents have a deeper knowledge than regulators and planners. They have been there since the beginning, when there were almost no houses. They took part in the first changes of the environment and could actively observe and learn from it. For example, the construction in short steps usually helps the builder to observe the response of the environment, which is particularly adequate for the self-production in hilly topographies. The self-producer has time to make mistakes, learn and fix them, since each action takes years.

The family in building A, for example, has constructed their five-floor house over 40 years, and it has apparently never presented any structural defects. Building C is an example of a very good use of hilly piece of land, as we can see in Figure 13. The lot is divided into small plateaus and small additions have been made step-by-step. This spatial strategy results in different housing units and entrances, which facilitates use by tenants, as can be observed in the next figure.

A remarkable aspect of new middle class residents of Aglomerado da Serra is the way of managing economic and material resources. Most families adopt more or less the same methods. First of all, they plan and decide themselves what should be done, which can be a small or big renovation, the addition of another room or a complete new house. The ideas are normally openly discussed among family members. Sometimes they draw them, sometimes they have everything only in mind and demonstrate it directly on the building site. After deciding what to build, it is time to find a trustworthy bricklayer able to do the work, who is normally recommended by friends or relatives. Decisions are strongly directed by emerging situations combined with economic restrictions. At this stage, we can observe one of the main differences between traditional planning and building processes and self-production processes. Self-production is rarely continued, but it is divided into cheap short steps, not planned as a whole integrated work. This means that

the traditional and formal construction phases do not happen and that long pauses between phases can occur. For example, residents contact a bricklayer only to build some walls and, after some time, hire another one to fix the roof, or to build the foundations of a new addition and so on. A typical self-production process in Aglomerado da Serra starts with the visit of a bricklayer. He visits the building site to understand what the residents want. He has no formal plans, but talks to residents and makes 1:1 sketches on the floor with small shards of ceramic bricks. The worker estimates the quantity of building materials and gives a quote for how much his services will cost, when the work might begin and how long it will last. With this information, the family checks how much money they have been saving, how much is still needed and how many months are necessary to acquire the full amount. After a few months of saving, people buy construction items previously listed by the bricklayer, usually at the building material shop in the neighbourhood, which normally belongs to friends. People rarely pay cash, but finance the payment in monthly installments that last for more than one year in their credit card bill. The products stay at the shop because people have no space to store them. Only after purchasing all the items does the construction start. There is a time gap between the first visit of the bricklayer, when he first estimates the costs and time and the real beginning of the work. During this break, which can last months to years depending on how much money people still need to save and on private issues that interfere in decisions, prices are higher and most often the same bricklayer is not available anymore, having already been hired for another job. Time and money must be negotiated once again and the whole process happens again. After so much time, most workers do not give up the first job they have previously combined. They usually try to find time in their busy schedules, mostly working on weekends, in order to earn some extra money. The problem is that this practice rarely works out. What usually happens is the accumulation of delayed tasks, wasting of time and a deep dissatisfaction from users.
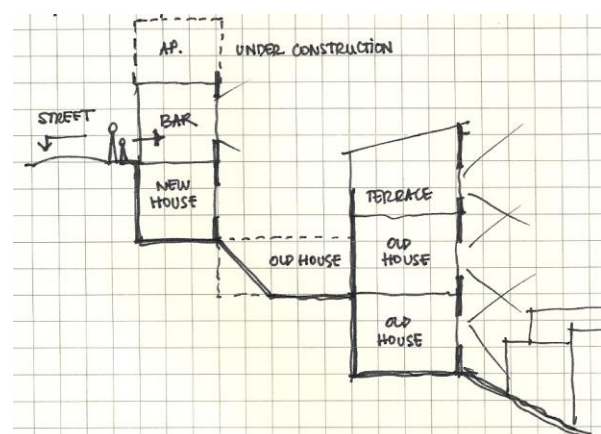
Figure 13. Case C, section plan of the complete lot. Source: drawing by the author, 2014.

Neighbours and relatives often help workers. During the building process, new construction materials are always required, which are bought at the same shop, also financed with credit cards. At the end of the building process, the debts remain. This process, from the first quotation of the cost and materials needed, right up to the end of the construction process, repeats with each stage of construction, since they are not planned to happen at the same time or in sequence. This approach has nothing to do with conventional architectural practices, even technically or culturally. Although problematic, regarding the lifetime of building materials and a kind of technical harmony of unfinished parts of the building, these are the very common conditions of self-production.

Self-producers learn so much in their constructions and renovations that some of them have transformed the activity in a job. The owner of building H, a formal lathe operator, started doing small renovations and additions for neighbours who have no time to do it themselves. One of his clients is the inhabitant of the house G (Figure 14). She is currently renovating her old house, built in the late 70's, for the first time. He charges a cheap price and manages small building sites, designing, calculating building materials, hiring bricklayers, painters and helpers and also doing part of the work himself. He has been doing this for himself, since the construction of the family's house, from when they bought the lot to the renovations still in progress. It was not a choice he had, but a convenient solution to find a new career since his previous one is now obsolete: "my profession does not exist anymore. The Chinese arrived and took over the market. Then I had to do something else..." This informant is a very talented manual worker and is very aware of the future of Brazil's manual labour sector. Although he is very satisfied with the new business and enjoys working in a building site himself, he has faced complicated situations with construction workers. Bricklayers and their helpers, especially young ones, very rarely receive any kind of training in Brazil. There are almost no technical schools and people learn on the job, observing elder colleagues. This situation perpetuates mistakes and unreasonable attitudes on the building site. Technical problems are seen as normal and expected: "concrete slabs always infiltrate rainwater".

Besides, working as a construction worker is seen as undesirable. It is a stigmatized occupation—for the poor, the black and the uneducated, with precarious basic education and often problematic social and family backgrounds. The owner of building H fears the future of the cities. According to him, on one hand, as well as construction companies that build for wealthy clients and for the government, there are millions of self-producers with no access to technical assistance and that can only access autonomous construction workers, with absolutely no training or even a satisfactory basic education. This man has self-built his family

home (Figure 15), where he has lived with his wife and three children since the early 80s. His workshop, in the back part of the lot, is abandoned while he starts a new professional life. He has also built a restaurant on the top of the original house, also as an alternative new job.

Figure 14. Case G, renovations in course, managed by the friend and neighbour, informant of the case H.

Figure 15. Case H, upper floor can be used as a restaurant. Source: author's archive, 2013.
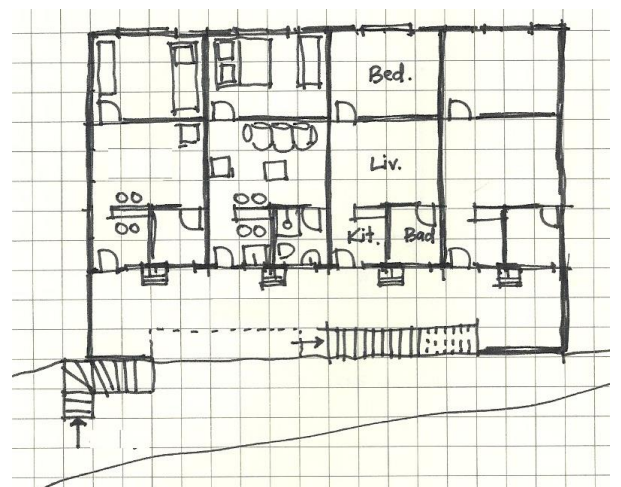
Figure 16. Case B, floor plan of the building. Source: drawing by the author, 2014.

3.3.4. Residences as an Exercise of Creativity

As represented in Figure 16, the spatial concept of B is quite interesting. It is a kind of a terraced house, with four units per floor and three floors. All the units are exactly the same. They consist of a living room integrated with a small kitchen, a bathroom and a bedroom. The units are open to a common corridor in the front part of the building, where there are laundry spots and stairs to connect the floors. The building is extremely functional and has absolutely no architectural concept. Tidily inserted between many buildings, there is only one free facade, which is only seen from a narrow path that connects the building to the main street. Although it is well placed in the lot, which provides tolerable lighting and ventilation conditions to internal spaces, the quality of the construction is very unsatisfactory.

External walls present lots of assembly defects. They are not straight and have protuberances, wrong junctions and even small empty spaces between construction elements. This condition results in future technical problems, like the infiltration of rain water and the accumulation of dust and humidity. As the walls are not stuccoed and painted, they receive direct sun, wind and rain water, which reduces their lifespan. What usually happens is that some time after, layers of stucco and painting will be used to hide the defects, without really solving the problems (Figure 17). At that stage, the unprotected walls do not have the same technical conditions of before, but will still remain and will probably be used to support a second or even a third floor. The same happens with decks without water proofing and windows and beams installed without window ledges or external finishing.

The unfinished appearance can disturb architects, but it is not a problem for the owner or tenants. For residents, these buildings are a convenient solution for their needs and for the owner is more than a victory. It is a good business, which offers the young entrepreneur economic security now and in the future. In addition to economic power, he gains symbolic power, as he is recognized as a successful young businessman in the neighbourhood. The business reproduces some aspects of the production of residences in the formal city, but with one big difference. This is a self-production process, since the acquisition of the land to the renting business is completely informal. It means that he (and most self-producers in slums) has no registration or ownership documentation and, because of this, does not pay any taxes, either on the land's value or on the profit from the renting business. Since the land is not legal, theoretically nothing should have been built and consequently the apartments should not be rented. How to formalize construction on an informal property? Besides, construction workers were informally hired, with no working rights, but a simple contract that describes the duration and price of the work.

The young entrepreneur completed his secondary studies at night, since he had to work all day. Now he can afford a night course at a private faculty to become a civil engineer. Actually, he always wanted to complete his studies, but only decided to go for engineering after having started the construction process. It seems to be irony—the earnings coming from the informal construction pay for the engineering faculty.

As in the case of building B, building E presents no aesthetic preoccupation and was "designed" to receive a right number of tenants, with tolerant ventilation, illumination and accessibility conditions. The owner had already self produced the house where he and his family currently live, somewhere in the neighbourhood. At that time, he had to hire some friends and eventually realized that he had to pay more per hour than he earned himself as a wall painter. This is why he decided to build himself the next time. Owning a private house is a dream for new middle class residents. Besides the symbolic value it carries, it grants the family the possibility of making savings, since they do not pay rent anymore. Savings offer new opportunities for a family—to buy goods, to invest in a new business, in a retirement plan and in the children's education. The owner decided to invest his savings in buying a half-lot.

Although half-lots are recognized by public notary's offices, the constructions there are normally informally built, again with no architects, engineers or formal plans. Despite the fact that they are located in the formal city, these enterprises do not follow urban regulations, are built without permission and are not allowed to be inhabited. The municipality regulators do not have bureaucratic conditions or human resources to inspect and control spontaneous construction in the city. Furthermore, the municipality in a way depends on self-production initiatives, since the demand for housing has never been solved.

Figure 17. Case B, unfinished building. The arrow calls the attention to the stairs to the third floor, with no protection. Source: author's archive, 2013.

Figures 18a and 18b. Case E, building's stairs. Source: author's archive, 2013.

The half-lot is 210 m², 7 meters wide and 30 meters deep. The plan is to build two small blocks with four housing units separated by a common yard, and in the future, a small shop at the front (see Figure 10). Two housing units are already rented and the other two are about to be finished. As in B, external walls are not stuccoed or painted. The priority is to finish the housing units inside, to rent them out immediately and then to re-invest the money building the shop.

Besides the dwindling amount of free and green areas left, the spatial organization and distribution of the units on the lot is satisfactory. The construction does not present technical problems yet, although there are visible construction mistakes. For example, the technique used to build the stairs resulted in steps which are too high and not deep enough, as we can see in Figures 18a and 18b. Stairs are always a challenge for self-producers and self-builders. Normally the space is limited and it is not so simple to fit adequate dimensions.

At a first sight, the dimensions and location of the windows seem to be unsatisfactory. Because they are in-

stalled too high, so as to preserve the privacy of neighbours, residents can barely see outside. Furthermore, they are very small, approximately 1x1m and the beams are too deep, which is also an obstacle for natural lighting (Figure 19). The result is dark rooms. This defect could be easily solved with different aperture systems to separate ventilation from illumination, for example. The problem is that more sophisticated construction items are extremely expensive in Brazil, even for the upper middle class market. Higher models would assure better ventilation and illumination and shorter beams would also contribute.

A remarkable aspect of the construction is the distribution of the access to each housing unit. Each unit has one independent entrance. This solution offers more privacy for the residents, and the access also works as a backyard. At the same time it costs more, since each housing unit has its private access, sometimes only by stairs. In building B, accesses to each unit are used as common space, with laundry spots and some free space for outdoor activities. The result is a two-floor building with four housing units, each with two bedrooms, a living room, a kitchen and a bathroom. The adjacent residence, F, is another example of the same spatial organization strategy as was adopted in E. In this case, the resident still lives in the lot, in the main house. There is a common yard in the middle, which is open to all housing units and provides ventilation and light for all of them (check Figure 10).

It is interesting to observe which aspects of self-production are direct references from the formal city and from regular constructions. In peripheral districts and in slums, repertories of form and architecture are few. Buildings do not to represent concepts, but attend to basic needs. Besides, construction materials do not vary much. People tend to repeat what they see on the streets, in their working environment and at friends and relatives' homes. The construction industry in Brazil is concentrated around the production of high-rise apartment buildings, obtaining the maximum profitable area and not focused on the optimal use of the space. In some sense urban regulations collaborate for this practice, since the required dimensions for ventilation, illumination and privacy are based on the minimum (Belo Horizonte, 2010). So, formal constructions are built according to the existing laws, but far from offering good space quality. Generally people think that "formal" and "regular" buildings are necessarily good. That is why the formal construction market influences self-production processes, as we can observe in cases E and F: "if the municipality approves a 1 m × 1 m window, it might work out". Although habitual, the arbitrary reproduction of formal construction habits seems to also be motivated by the availability of construction items in the market. People do not have many choices and end up using what is easy and cheap to buy. Spatial decisions that do not directly depend on construction materials normally present a higher level of authenticity, which have brought about very creative spatial arrangements.
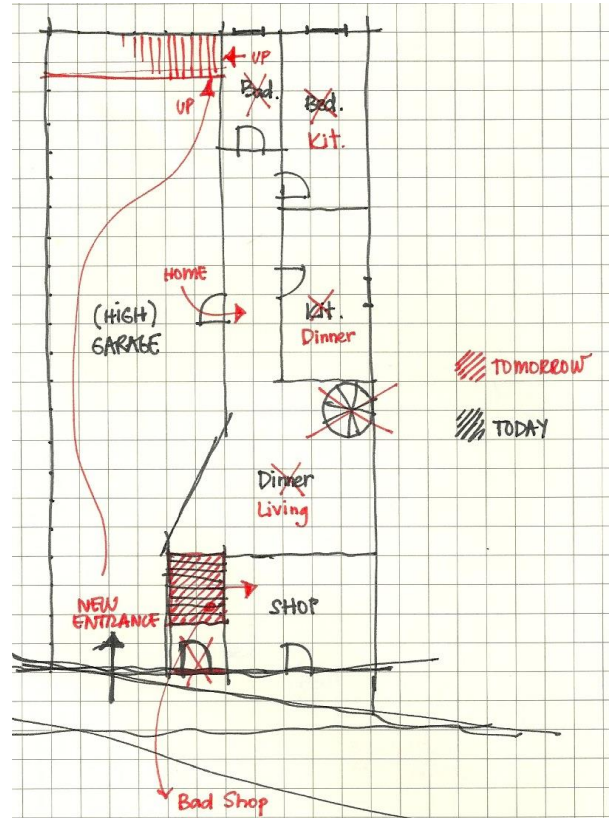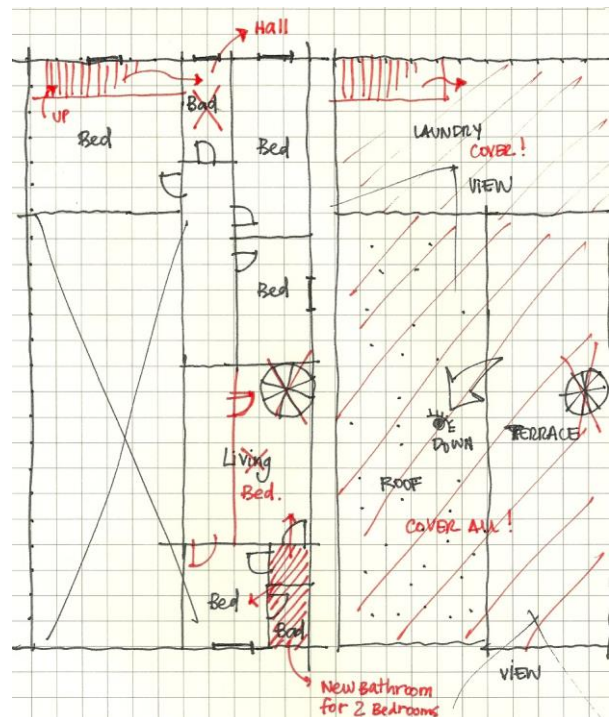
Figure 19. Case E, windows and high beams. Source: author's archive, 2013.

Figure 20. Case D, ground floor. Black represents the current situation and red the plans for the future. Source: drawing by the author, 2014.

Inhabitants understand intimately their everyday demands and are perfectly able to imagine creative internal changes. House D, represented in Figures 20 and 21, is an interesting example of how to manage the internal space of a residence where seven family members with different ages, schedules and demands live. In order to attend their wishes with limited costs and space, the matriarch of the family very well exercises the ability on choosing priorities and dealing with frustrations.

A couple, two daughters, two brothers and one niece live together in the three-room house. The couple, which owns the building, moved to Belo Horizonte about 25 years ago and soon after the wife invited her three brothers to join them (two of them still live there. One of them is the owner of the building B). It is very common that young people live with their parents for longer periods. This seems to have also economic justifications, since all family members collaborate on the household with economic and non-economic resources from a very young age. According to the owners, the house needs a new bedroom, a new laundry room and a bigger kitchen, since the old one has never been renovated. She also intends to renovate the existing garage and then to rent out it to contribute further to the family income. Parking spaces have also become a good business in the slums.

Figure 21. Case D, second and third floors. Black represents the current situation and red the plans for the future. Source: drawing by the author, 2014.

3.3.5. The residence as an Oasis in the Public Space

The occupation of the neighbourhood and the construction of residences in both clusters occurred step by step. Residents did not arrive all at once, so twenty years ago neighbourhoods used to have lots of empty spaces. In formal subdivisions, these were private lots not yet occupied, but in the slums the differentiation between public and private is still not so evident. Empty places in slums were mostly free green areas. The environmental quality was not bad, although sanitary conditions were precarious.

The lack of collective life outside residences in peripheral neighbourhoods is reinforced by building types, with high front walls and grills. Also, public spaces are restricted to streets and sidewalks, which serve only as channels for of people going to work. In the area of the cluster in Aglomerado da Serra there is only one public space—Praça do Cardoso—and a few pieces of land which are not yet occupied because of geological risks. The nearest recreational space to São Joaquim, for example, is 5 km away, which can take about fifteen minutes by car but one hour by bus. On weekends the trip can take even longer, since the number of buses is reduced. There are no roads for bikes, sidewalks are narrow, less than 2 meters wide, and all types of vehicles are allowed to use the streets, regardless of their capacity. Moreover, sidewalks have trees planted on very small gardens, which offer unsatisfactory shadows and reduce even more their width. For wheel-chair users it is almost impossible to move around in many places in São Joaquim. In Aglomerado da Serra, the hilly topography is already a big difficulty. In both clusters, homes seem like an oasis in the harsh city. Inside them people surely feel more secure and comfortable. Many residences have gardens, with trees, vegetables and herbs. People sit on the shade and enjoy themselves. The concentration of investment in renovation and improvements to the recreational space of residences is also possibly motivated by the desire for an island of peace and security. Many houses have for example, a second kitchen in the backyard, where family members often meet for barbecues and private picnics, a kind of practice that in theory could take place in public parks. Although Aglomerado da Serra presents few planed public spaces, very narrow streets and almost no sidewalks, the streets present a more vivid atmosphere, always full of pedestrians, sellers, children and loud music.

The feeling of insecurity was much stronger during visits to São Joaquim than in Aglomerado da Serra. First of all, the journey to São Joaquim was much longer and took about 2 hours by bus from Belo Horizonte's city center. The trip is not direct—the bus takes highways and passes by areas where cases of violence have been known. When arriving in the neighbourhood, it was necessary to walk about 20 minutes from the bus stop to the cluster and as previously mentioned, the streets

were always empty, and surrounded by high walls. On the other hand, Aglomerado da Serra is very well located and connected with three bus lines, which take about 20 minutes to get to the neighbourhood. There are many small shops on the way and many people on the streets, which somehow involves the want to create their own oasis of peace. Especially in the *favela*, there is a common preoccupation with children and teenagers. Many parents prefer to keep them inside the house as much as possible, to avoid contact with drug dealers, who run their businesses on the streets. At the same time, informants do not fear violence coming from the dealers, who actually are their neighbours, most of them since a very young age. The problems are involvement with illegal practices and the risk of conflicts between policemen and dealers, which can happen on the streets and contribute to an insecure atmosphere.

4. Early Conclusions and Questions

The hardest Brazilian problems are not individual, but collective: inequality, inflation, informality, lack of resources, violence, and lack of democracy— problems that contradictorily seem to belong more to the country than to each Brazilian individual (Neri, 2011). How can Brazilians rate their lives highly, as confirmed by researches of the Gallup World Poll Institute (2010, apud Neri, 2011) when it comes to future happiness and at the same time give a low grade for life in general? This conflict is also confirmed with families that took part in this research. All informants, without exception, agreed that life today is easier than life 20 years ago. Nowadays there are "jobs for everyone" and also better material conditions. At the same time, informants were not optimistic about politics, education, public security and health care. The assertion that "Brazilian problems are not private, but public", although applied to the economic context by Neri (2011), also fits here. The field work confirmed that in general, residences have really improved in the sense of internal comfort, sanitary conditions and available space, as well as the abundance of domestic goods. Although government initiatives like *Bolsa Família* and *Construcard* (a social welfare program that provides financial aid to poor families and a low interest loan for self-producers, respectively) took place in the last ten years and have positively influenced self-production processes, private companies are making an incredible profit through building due to insufficient government social housing enterprises and big infrastructure projects in the big cities. In any case, urban quality has not been taken as a priority. Governments have given priority to new construction and parking spaces, to the detriment of green areas and recuperation of old buildings. This behavior is blindly reproduced by self-producers in their homes. For example, although they have achieved creative solutions in the use of space, illumination and ventilation have minimal dimen-

sions and every single meter is used, right up to the limits of each lot, so free or green areas are few.

So, after gaining an insight into how "battlers" reside, I ask: what do Brazilian "battlers" need? Based on this quick look through their homes, I would say they do not need much. Regarding their residences, the integration of three parallel actions seems to be an ideal to be pursuit: (a) training for manual workers and self-producers and (b) alternative tools for understanding and planning space in collaboration with construction components (stairs, beams, slabs, windows etc). These are interesting research topics for architects, who would be, instead of space planners, a type of space facilitators. Finally, another idea would be to implement (c) low interest financing mechanisms for self-production processes, if they were flexible, non-bureaucratic and if they worked accordingly to the rhythm and the conditions of each family. Regarding neighbourhoods, in order to improve space quality, a deep change is necessary in mechanisms of urban planning, which are currently completely profit-making oriented and are not focused on optimal solutions for inhabitants. With the socioeconomic rise of the Brazilian new middle class, people seem to have a full right to their homes, given by an apparent economic stability and some freedom and autonomy on self-producing and self-building dwellings. At the same time planning tools and urban planning departments are completely focussed on private initiatives, which do not take quality of housing and of the urban environment as priorities. It is not by chance that self-producers, which have so hardly resolved their own demand, are ignored by the state. People seem to have right to their private homes, though done by themselves, but still remain without right to the cities they inhabit. (Brenner, Marcuse, & Mayer, 2012).

The recent economic growth of Brazil has contributed to improvements in the everyday life of families, in terms of basic resources for households. Unfortunately, the same level of improvements is not noticeable in the neighbourhood scale and even less in the city as a whole. Even though, in comparison with other emerging countries (Russia, India, China and South Africa), Brazil shows interesting distinctive aspects. On the one hand, social inequality is decreasing in Brazil and growing in other BRICS. Indeed, only in Brazil is the annual income of the 20% poorest growing more than the income of the 20% richest (OCDE, 2010), although Brazil's GDP grew by only 2.3% in 2013, much less than that of China, which grew 7.7%. According to economists, the quality of Brazilian economic growth is better (or more trustable) in terms of environmental issues and working conditions. At the same time, Brazil has a weak educational public sector, confirmed by difficulties faced by most informants in their building sites; people do not save as much as in developed countries, as they face extremely high costs for the household, private schools and health care, as well as bureaucratic obstacles. While economists are optimistic, sociologists, architects and urban planners should be rather concerned.

Acknowledgements

Conflict of Interests

The author declares no conflict of interests.

References

Belo Horizonte. (2010). Lei de Uso e Ocupação do Solo de Belo Horizonte, nº 9.959, 20 July 2010.

Bourdieu, P. (2007). *A distinção—Crítica social do julgamento*(Brazilian edition). São Paulo: University of São Paulo Press.

Brenner, N., Marcuse, P., & Mayer, M. (2012). *Cities for People, Not For Profit. Critical Urban Theory and the Right to the City*. New York: Routledge.

Descombe, M. (2003). *The Good Research Guide for Small-Scale Social Research Projects* (2nd ed.). Philadelphia: Open University Press.

Grupo de Pesquisa Morar de Outras Maneiras/Universidade Federal de Minas Gerais (MOM/UFMG). (2012). *Nilberto, Luciana e Crianças—Research Report MTS (Moradia e Tecnologia Social)*. Belo Horizonte: UFMG

Kapp, S. (2005). Por Que Teoria Crítica da Arquitetura? Uma Explicação e uma Aporia. In M. L. Malard (Ed.), *Cinco Textos sobre Arquitetura* (1st ed., pp. 115-167). Belo Horizonte: Editora UFMG.

Konder, L. (1981. *O Que É Dialética* (28th ed.). São Paulo: Editora Brasiliense.

Leavy, P. (2011). *Oral History—Understanding Qualitative Research*. New York: Oxford University Press.

Neri, M. (2011). *A Nova Classe Média—O Lado Brilhante da Base da Pirâmide* (1st ed.). São Paulo: Editora Saraiva.

Nogueira, P. S., & Kapp, S. (2010). *Práticas de Arquitetura para Demandas Populares – A Experiência dos Arquitetos da Família* (Master Thesis). Belo Horizonte: Minas Gerais Federal University.

OCDE. (2010). *Latin American Economic Outlook 2011*. Paris: OCDE Development Centre.

Souza, J. (2010a). Uma nova classe social. *Le Monde Diplomatique Brasil*, November, pp. 6-7.

Souza, J. (2010b). *Os Batalhadores Brasileiros—Nova Classe Média ou Nova Classe Trabalhadora?* (1st ed.). Belo Horizonte: Editora UFMG.

Weimer, G. (2005). *Arquitetura Popular Brasileira*. São Paulo: Martins Fontes.

About the Author

Priscilla Nogueira
Priscilla Nogueira is a Brazilian architect, interested in ordinary architecture, self-production process-es and alternative design methods. From 2008 to 2011 she coordinated the project "Family Archi-tects", providing technical assistance in low-cost building processes in Brazil. Since 2012 Priscilla Nogueira has been a PhD candidate at Bauhaus-Universität Weimar with the Doctoral Research "How do Brazilian 'battlers' reside?". The work focuses on the production of space made by the so called "new Brazilian middle class", investigating the relations between social conditions of self-producers and technical and spatial conditions of produced spaces.

Article

The Role Innovative Housing Models Play in the Struggle against Social Exclusion in Cities: The Brisbane Common Ground Model

Petra Perolini

Design Department, Queensland College of Art, Griffith University, South Bank, Qld 4103, Australia;
E-Mail: p.perolini@griffith.edu.au

Abstract

The history of housing in Australia is a textbook example of socio-spatial exclusion as described, defined and analysed by commentators from Mumford to Lefebvre. It has been exacerbated by a culture of home ownership that has led to an affordability crisis. An examination of the history reveals that the problems are structural and must be approached not as a practical solution to the public provision of housing, but as a reshaping of lives, a reconnection to community, and as an ethical and equitable "right to the city". This "Right to the City" has underpinned the Common Ground approach, emerging in a range of cities and adopted in South Brisbane, Queensland Australia. This paper examines the Common Ground approach and the impacts on its residents and in the community with a view to exploring further developments in this direction. A clear understanding of these lessons underpins, and should inform, a new approach to reconnecting the displaced and to developing solutions that not only enhance their lives but also the community at large.

Keywords

Australian housing; Common Ground; Great Australian Dream; public housing; social exclusion; socio-spatial divisions; urban disadvantage; urban marginalisation

1. Introduction

Today's cities are faced with the challenges of rapid population growth, urban sprawl, housing shortages, urban decay, increasing social segregation and the geographical, climatic, political and economic displacement of the disadvantaged. Common Ground attempts to overcome this historical trend through an inclusive approach.

Repeated cycles of government policy designed to address the problems of adequately housing the disadvantaged have only created new nightmares of exclusion. Outer suburban ghettoes have replaced inner city slums; satellite cities have failed to provide a solution and consumed millions in attempts to retrofit infrastructure and rectify poor planning; mixed land-use projects, designed to provide affordable housing, have become trendy and expensive: all these approaches failed to provide housing for homeless and displaced people let alone the more general challenge of rebuilding community.

The greater the social cohesion of a community, the more resilient it becomes (Pelling, 2003). The practical, rapid response of constructing housing in low-cost areas with the addition of a minimum of support services therefore exacerbates rather than alleviates the problem. Thus, design approaches to housing the homeless, displaced and low-income earners must expand their horizon and address the challenge as one of reshaping lives, reconnecting community, and providing an ethi-

cal and equitable "right to the city".

In the last decade academics and social movements have framed this social injustice to housing struggles in terms of "The right to the city". "The right to the city cannot be conceived of as a simple visiting right or as a return to traditional cities. It can only be formulated as a transformed and renewed right to urban life" (Lefebvre, Kofman, & Lebas, 1996, p. 158).

The challenge then is to explore possibilities outside of pragmatic solutions and encourage a new urban, one that aims to deliver reconnected and inclusive cities that offer a renewed sense of place, purpose and future. Housing plays a central role in this social justice debate and affordable housing initiatives are becoming more important globally. Relevant responses must start with that outcome in mind and work to overcome the obstacles that resist its delivery. The Common Ground approach meets a number of these requirements.

This paper aims to contribute to the debate of urban social exclusion and offers a range of lessons and potential solutions that form an essential input into the development of future urban design approaches. The paper focuses first on a theoretical review of urban theory before examining the "right to the city" in an Australian historical context leading to a discussion of Brisbane's Common Ground. Finally, the paper argues that the dialectic between urban policies, the shapers of our urban centres and the emergence of social initiatives need to be brought into alignment with the imperative of an ever increasing divide.

2. Developing the Urban

To understand the challenge facing inclusive approaches to urban design such as Common Ground it is essential to understand the forces underpinning historical urban development.

City planners have long explored the balance of power in the city and the role played by capitalism in socio-spatial fragmentation. American historian, sociologist and critic Lewis Mumford contends that by the 17th century, capitalism had changed the balance of power of the Western city.

That focus on profit moved land from a system of feudal tenure (a long-term generational lease system with reciprocal duties between landlord and tenant) into a commodity, a means of making money. The disadvantage thus fell on the poor. As rents escalated, properties simultaneously fell into disrepair; landlords made no long term obligations to tenants, overcrowding became rife and so arose the first slumhousing. On the outskirts of the city, farms coming out of tenure were divided into building lots, and by the early nineteenth century indefinite expansion became possible within a laissez faire approach to property ownership (Mumford, 1961, pp. 474-475).

From the 1960s, additional approaches to exploring urban fragmentation have drawn upon the work of Marx and Engels, where the capitalist city, in the accumulation and circulation of profit, produces class based upon social divisions (Engles, 1968). Scholars such as Henri Lefebvre, Manuel Castells and David Harvey, despite their theoretical, methodological and political differences, all share a concern to understand the ways which urban communities, under capitalism, are commodified.

In particular, modernist architectural thinking comes under intense criticism from Lefebvre, as working from an externalised perspective with little reference to lived experience (habiting—not simply inhabiting) (Lefebvre et al., 1996, pp. 152-154). Lefebvre singles out Le Corbusier, whom he describes as, "a good architect but a catastrophic urbanist, who prevented us from thinking about the city as a place where different groups can meet, where they may be in conflict but also form alliances, and where they participate in a collective oeuvre" (Lefebvre et al., 1996, p. 207).

David Harvey is equally critical of the roles of architecture and urbanism in structuring the urban, blaming investment and financial reasoning, built upon a continuous cycle of long waves of investment: over accumulation, devaluation, loss of exchange value, buying at bargain prices and back to investment again (Harvey, 2002). Further, Neil Brenner expands upon Lefebvre's theories of urbanization as an increasingly global phenomenon, no longer relating only to industrialized towns and cities, but as the "stretching of an 'urban fabric', composed of diverse types of investment patterns, settlements spaces, land use matrices, and infrastructural networks, across the entire world economy" (Brenner, 2012, p. 21).

The Common Ground approach attempts to leapfrog these limitations by directly addressing the issues of integration and inclusion rather than focusing on structure and infrastructure.

3. Spatial Exclusion in Australia

The Common Ground experiment in Australia attempts to address the challenges facing the homeless and disadvantaged in a rich country with a high proportion of home ownership and large amounts of open space leading to sprawling, low density cities.

Although "the bush" has defined Australia's historic identity, today's population is heavily urbanised, with approximately 88% of Australians now living in metropolitan areas. One of the wealthiest nations globally, Australia is no stranger to problems of poverty and exclusion. Disadvantage can be found in almost every city and larger regional centre (Communities, 2011).

From the late 19th century, "progressive" planning movements have asserted the value of home ownership and a suburban "Great Australian Dream" as a

method of remedying social issues of densely populated areas. Following US and British trends, high-density housing was stigmatised as "slum" housing. Social reformers of the "Garden City" and "City Beautiful" movements were concerned with promoting health and vitality in urban living (Butler, 2012).

In 1909 a Royal Commission for the improvement of Sydney recommended the creation of garden suburbs for the working classes, resulting in the country's first regional plan (Cox, Graus, & Meyer, 2011). Daceyville Garden Suburb in Sydney was the first and possibly most influential of these Garden Suburbs. It aimed to demonstrate a better standard of living with lower density, wide-open curving streets, no front fences, quarter acre blocks, street planting and public open spaces (Cox et al., 2011).

Despite its initial positive reception, low-density living took on a new momentum following World War II, when all cities expanded dramatically. The new proposals were translated into local council by-laws with minimum allotment sizes and design standards, inclusion of public parks and spaces, and covenants. Developers built new suburbs and satellite towns of private lower-income and public housing to meet the bare minimum of the social tolerance threshold (Butler, 2012). According to Butler,

> While the development of the suburbs can be attributed partly to the growth of industrialisation, it cannot be separated from the deeply anti-urban ideology that was prominent among the early planning reform movement and helped to normalise the "quarter-acre block" as a spatial form maximising private space to the detriment of public space. (Butler, 2012, p. 117).

In 1948 an Abercrombie-inspired satellite town model was proposed for Sydney's Country of Cumberland Plan, with a plan of slum clearance in suburbs such as Surry Hills, Redfern and Balmain to be replaced by Corbusier-style high rises, a greenbelt at a 20km distance from the CBD, and beyond that satellite towns such as Campbelltown and Penrith. Although developed as a "balance" to counteract the growth of the city, the result is a bimodal population split between high income commuters on the one hand and socially excluded residents on the other.

As the demand for affordable housing intensified, the sites of Green Valley and Mt Druitt were chosen as low cost public-housing estates based upon the Radburn, New Jersey open-public-space design of Clarence Stein. Unlike the British models, these suburbs failed to integrate housing with employment. That was exacerbated by the policy that residents were required to be low-income earners and eligible for public housing. Travel distances to work, reliance on a fast transport system or private vehicle, low employment rates and

bad press soon led inevitably to social stigmatisation (Cox et al., 2011).

By 1968, the greenbelt had been abandoned due to rapid population growth. The Sydney Regional Outline Plan developed, based upon a European linear model of railway corridors with each corridor to be made up of a collection of new towns with primarily detached dwellings (Cox et al., 2011). Satellite towns such as Campbelltown, 50 km south of Sydney were reinvented with a town centre, employment prospects, university, hospital, public transport and a mix of private and public housing. However, the growth of the affordable outer suburbs soon outstripped employment, transportation and infrastructure, all of which remain a challenge in these areas (Cox et al., 2011).

In search of an answer, brownfield developments such as South Bank in Brisbane, Docklands in Melbourne and Pyrmont in Sydney became popular in an attempt to promote inner-city dwelling and reduce urban sprawl in the 1980s and 1990s. Again they were derived from international models such as the Docklands development in London based upon a high density "New Urbanism" (Cox et al., 2011). Developments with high-end apartments, restaurants, bars and entertainment located in inner-city prime locations proved extremely popular with an inner-city, gentrified middle-class; the disadvantaged populations, historically concentrated in inner-city areas, were pushed out to peripheral suburbs. Today the post-war central suburbs are being rezoned and redeveloped with mid-level mixed use development along public transport routes, once again escalating housing prices and relegating the less fortunate to the peripheries.

The repeated failure of these different models of urban development to address the structural problem of unequal "rights to the city" indicates that the core approach of providing additional infrastructure is insufficient.

4. The Ownership Axis

One challenge faced by any social housing approach in Australia is the intense desire for and encouragement of home ownership. Over the century long history of the nation, this has led to public money being injected into incentives and support for homeownership and the cultural ideology of the "Great Australian Dream" (Jacobs, Atkinson, Colic Peisker, Berry, & Dalton, 2010).

In the early decades of the 20th century, Australian governments promoted home ownership through state banks and war service home loans. In the mid-1930s, the Australian labour movement ensured that wage levels were kept above a minimum and marginal tax was kept low, further enabling and encouraging home ownership (Jacobs et al., 2010).

From the 1960s to 1970s, the policy appetite for public housing returned and high-rise, public-housing

estates replaced inner-city terrace housing (Jacobs et al., 2010). At the time of construction, these projects were seen as a cutting-edge solution to social issues (March 2003). However these housing models were ill-fated. The estates were soon criticised by residents and the public for unattractiveness and lack of social planning (Atlas & Dreier, 1994). They soon became associated with crime and low morale.

By 1978, the Commonwealth had greatly reduced the amount of funding for building and maintaining public housing (Groenhart, 2012).

"The result of dwindling funds was a shift in the role of public housing, from a mainstream option to marginal sector with a highly disadvantaged tenant base. By 2006, around 90% of tenants were either on welfare benefits or experiencing some other form of social deprivation" (Groenhart, 2012). Governments have thus turned to the private market to "fund the renewal of their housing estates through policies branded as 'social-mix'" (Jacobs et al., 2010, pp. 20-23).

This ideology of home ownership has created a unique population in Australian cities: the "renting poor". Given that Australia's public-housing sector is very small (5%) compared with its counterparts in other western cities, the private rental remains a robust part of the Australian housing system. As a market liberal society, Australia places considerable faith in the market and is highly protective of individual property rights and thus of home ownership (Burke, 1999). The result has been an investment-based approach to managing rental properties that disadvantages the tenant in ways similar to the four centuries old patterns described by Mumford.

5. The Right to the City

There are many more poor and disadvantaged households in the private rental sector than in social housing (Hulse & Burke, 2000). Studies show that anti-social behaviour, an increase in crime; social stigma, poor education and general dysfunction are all symptomatic of life in social housing (Morris, Jamieson, & Patulny, 2012). Living in marginalised clusters can have the following long-term consequences: a gradual loss of confidence in the "system", long-term unemployment, limited or no participation in active citizenship, the prompting of a sense of failure, rejection and shame is often passed down through the generations (Hulse & Burke, 2000).

The spatial distribution of the socially disadvantaged is evident in every Australian city. Clusters of deprived people and poor neighbourhoods are concentrated in fringe suburban areas….There is evidence that the disadvantaged living conditions are being passed from one generation to the next (Pawson & Herath, 2013).

The answer, then, comes from some mechanism that deals with the concept of "social mix". So far, planning schemes, housing policies and other strategic approaches have failed to stop the growing concentration of disadvantage in Australia's suburbs. Affordable housing is at the centre of the debate. Recognising the urgency, in 2008 the Australian Government released a White Paper on Homelessness, outlining policies on addressing disadvantaged citizens. A year later, the National Affordable Housing Agreement (NAHA) followed, complemented later by the National Partnership Agreements on Homelessness and Social Housing. These national agreements underpin the Queensland Housing 2020 Strategy. Launched in 2013, this strategy addresses Queensland's social housing system and promises to bring it in line with current demands (Department of Housing and Public Works, 2013) Consequently, Common Ground Brisbane secured part funding from the National Partnership Agreement on Homelessness. The Queensland Government through the National Building Economic Stimulus Plan provided the other funding. The building is pioneering affordable housing and social inclusion in Brisbane and is adding to the discussion on social mix as a case study.

6. The Common Ground as a Counter-Point

Common Ground, established in 2008, is Queensland's first specialist supportive housing tenancy and property management organisation. The organisation focuses on providing quality tenant outcomes for people who have experienced chronic homelessness or earn a low income. It attempts to tackle the problem of exclusion in a number of ways:

1. offer permanent, safe and affordable housing to the disadvantaged in the community
2. provide a vibrant community life within the building itself
3. extend that community live by engaging with and contributing to the surrounding neighbourhood
4. bring the surrounding community into the project through leasing commercial and community spaces

In short, the project attempts to shift the emphasis from the value of the property or infrastructure to the value of the service by valuing the benefits of integration above the cost of the project.

This paper examines the degree of success in that endeavour and the lessons that have been learned. The methodology employed is semi-structured in-depth interviews, and is discussed in detail below. The reality is that the project is new, a post-occupancy review has not been completed, and there is little empirical evidence available to date. Three interviews were conducted as part of a larger project that presented visual and auditory elements in the form of an exhibition in September 2014:

- Interview 1: Karyn Walsh, Coordinator Micah projects, 20 August 2014.
- Interview 2: Common Ground resident, male in his 50s (wanted to remain anonymous), 5 August 2014.
- Interview 3: Lesley Rankin, former hospitality employee near Hope Street South Brisbane, 5 August 2014.

6.1. Physical Infrastructure

Common Ground, in a partnership with Micah Projects, a community-based not-for-profit with a commitment to social justice, and a number of other key partners delivered a building on 15 Hope Street, South Brisbane, which houses 146 people in single units or studios. Fifty per cent of tenants were chronic homeless with the other 50 per cent on low income (Department of Housing and Public Works, 2013). The project offers permanent, safe and affordable housing to the community. Furthermore, the concept provides a vibrant community life both within the building itself, and in engaging with and contributing to the surrounding neighbourhood (Australian Common Ground Alliance, 2013).

The building itself is located on prime inner-city land, across the river from the CBD, adjacent to the city's arts and cultural precincts at South Bank, with direct access to public transport. The project is unusual in that it results from an innovative partnership between federal and state governments, business and community. Funding for the building was provided by the Australian Government and Queensland Government, under the Nation Building Economic Stimulus Program and the COAG National Partnership Agreement on Homelessness. That Stimulus Program was a high level policy decision to invest billions in infrastructure as a response to the global financial crisis. As such it was a unique opportunity to create a housing project outside the accepted norms of urban planning and design.

Construction company Grocon offered its services for the project on a not-for-profit basis, as did many other participating businesses. Nettleton Tribe (architects, interior designers, master planning and urban design) were awarded the tender to design and document the project. Combining 146 single bedroom and studio residential units, breezeways, common spaces, art and computer rooms, rentable conference rooms and retail tenancies, the top floor also houses a fully commercial training kitchen with an extensive rooftop edible garden, and relaxation areas. The building's foyer is complete with a fully-staffed concierge desk, lounge areas and a grand piano for use by the tenants.

In terms of ongoing support, Common Ground Queensland Ltd provide the ongoing tenancy management for the project, whilst Micah Projects Inc. provides 24 hour on-site support services for tenants (including encouraging independent living, vocational training, employment and education and access to health professionals). Both of these community organisations, as members of the Australian Common Ground Alliance, were strongly involved in the inception, development and implementation of the project (Micah Projects, 2013). Rent is based upon individual tenant income and is charged as a percentage, which accommodates flexibility in cases of loss of income or reduced working hours.

6.2. Measures of success

The building, on a site that is historically been associated with Brisbane's homeless is surrounded by high-priced inner-city living. The philosophy of creating a social mix, rather than pushing the marginalized and those who had previously been sleeping rough out of sight to the suburbs has met some challenges. Attracting health care and community care organisations to the lower floor retail spaces, and utilising the building as a community asset has been slower than hoped. However, there has been a gradual increase in bookings of the rentable conference spaces and commercial kitchen/rooftop asset, which, Micah is confident, will increase in the future (K. Walsh, personal communication, August 20, 2014). By making public spaces available for use by the larger community and business sector, it is hoped that the socio-spatial divide and any remaining stigmatisation associated with the buildings tenants will diminish.

All interviewees shared a concern for social exclusion. In fact there was a strong perception that social exclusion is growing worse in Brisbane, suggested by the increasing demand for housing in Common Ground. All interviewees stressed the importance of building a strong relationship between Common Ground tenants and the neighbouring community to alleviate exclusion and ease the transition from years of isolation and dysfunction to a future of purpose and hope. In line with the literature review, all interviewees referred to the enormous challenges the project had to overcome by establishing social housing in an area of Brisbane where real estate prices are high. One interviewee mentioned that on several he saw Common Ground tenants struggling to justify to other residents in the area why they can afford to live in an area where the rents are above the average. The same interviewee also observed that it had initially been difficult to change the perception that the public and community had of the Common Ground tenants. He noted that there is now a shift toward valuing diversity and community inclusion.

6.3. Culture Change, Diversity and Positive Discrimination

All interviewees agreed that a complete culture change

is needed to transform the housing situation in Brisbane. One expected the situation to get worse as the aging of the population increased the rates of homelessness and poverty. Another commented that while projects like Common Ground have improved perceptions of the marginalised and disadvantaged, such projects only treat the symptoms but not the cause. In his view, many of the symptoms of social disconnection can and should have been remedied much earlier. However, in his opinion, the present social, economic and political structures preclude early intervention.

Fixed social norms were an area of concern for all interviewees, which they thought was one of the main enablers of stigmatisation. A lack of public understanding of the effects of homelessness, disadvantage, disconnectedness and stigmatisation explained why some of the tenants of Common Ground felt different and excluded. Everyone insisted that problems of acceptance of the new neighbours had been anticipated but that the advantages of staying local and being close to support services outweighed the challenges foreseen. One interviewee described the current tenants of Common Ground as interesting people who livened up the area. Many of them were artists or musicians and the local hospitality businesses enjoyed their patronage.

It was generally agreed that the South Brisbane community in the vicinity of Hope Street supported Common Ground but there were always going to be opponents. Karyn Walsh commented:

"This was always going to be the case. You can educate people and you can hold many community meetings but there are always people who lack empathy and who can't envisage the positive contribution the new tenants could make. The challenge, I think, is getting people on side in an inner city location where prices are high. What are the implications of this for the rest of the community? Is it fair that some people pay 800 dollars a week and others only pay 120 dollars for the same thing? These were issues floating around and it created quite some debate. But we really wanted and pushed for this location because we felt that people had lived in the area for a long time and had already faced being displaced from the many hundreds of units being built in this area. Why not include some that were affordable and cater for people who had actually lived in the area so they could in fact stay in the area". (K. Walsh, personal communication, August 20, 2014)

6.4. The Intended Use of the Facility

One interviewee commented that Common Ground was designed to be a community asset. There are many rentable spaces within the facility, including conference and function rooms that the community is now starting to use. Although this was slow to develop, the bookings are steadily increasing.

The concept had derived from research and case studies of similar projects, which saw the benefit in bringing the community into the building. The benefits were twofold. They allow for the establishment of mixed communities to establish a balanced neighbourhood, where both sides can benefit from each other. The second was to alleviate some of the stigmatisation, particularly at the beginning of the project. This was achieved by showcasing the excellent facilities the building offers, creating the possibility for tenants to mingle and play the grand piano, to enjoy the first class facilities, the security, the tastefully designed spaces and the amazing vistas of river and city.

One interviewee stated that the mixing interrupts patterns of social segregation. Micah Projects agrees that mixing prevails undermines anti-social conduct and dependency. This thinking is in line with the research and underpins the view that new housing developments should have a diversity of affordable homes.

All three interviewees praised the amenities facilities the building offers to its tenants (cooking facilities, computer rooms, shared spaces).

"By allowing tenants to gain some skills in the safety of their own homes, provides them with the necessary skills to confront the 'outside' world, a place they have been cut off from for a long time". Two interviewees mentioned a lack of confidence in their ability to find employment. "When it comes to applying for jobs, especially the long-time unemployed tenants worry about their ability to fit in and to sustain a job". One interviewee made reference to the empty commercial tenancies on the ground level. Originally earmarked to house a medical centre, the building has failed to secure a tenant in its first two years of operation. "If I was going to do this again, I would invest in the whole concept. Funding needs to be put into getting the commercial tenancies up and running rather than leaving this for a later stage" (K. Walsh, personal communication, August 20, 2014).

6.5. Monitoring the success

The building is in its second year of operation and a post-occupancy evaluation has yet to be conducted by the State Government. Two interviewees said they found Common Ground a great initiative for social inclusion. However there was some criticism about its future success and concern was expressed about the fairness of the selection of tenants. One interviewee was concerned that the waiting lists to get a place in Common Ground are long and disappointment was expressed at the selection process of choosing tenants.

"Some of the real hardship cases seem to fall off the radar. Maybe this is because they disappear and are just not around when the waiting lists are updated or maybe they are not considered 'suitable'" (Interviewee 2, personal communication, August 5, 2014).

One person said that the selection process is very complex and might appear unfair to people who don't have the full picture. She agreed that it is disappointing that the organisation can't offer more places, as the aim is to make the living conditions better for all their clients.

"Common Ground was just one initiative and many more need [to be established] to move forward the agenda of closing in on social exclusion" (K. Walsh, personal communication, August 20, 2014).

One interviewee commented that while mixed neighbourhoods are nice to work in and live in, their "neighbourhood effects" don't do much to help the poor escape from poverty. A second interviewee agreed that simply "allowing" the poor to mix with the affluent does not necessarily generate social and economic equality.

"We might be accepted but we still don't get the same chances. We look different, we speak different, and we are different. Just because we live next to them does not change the fact that we are different. I like living here, it is a step towards becoming independent and able to live my life again and I was one of them outside many years ago, most of us were. However, it's like living in an area with an engineered social character. But living here also means that things are more expensive than in outer poorer suburbs" (Interviewee 2, personal communication, August 5, 2014).

While the real success can't be determined until some formal evaluation has been completed, all interviewees agreed that the architects, planners, designers and others had created a building which suits the character of the site and its tenants. Although Common Ground is a success from a design perspective, one interviewee thought that there was no need to replicate it.

"Any future similar buildings need to be designed to be site specific. What worked here on Hope Street might not work somewhere else. I believe the design team did an outstanding job in working with all the stakeholders in creating the vision for a building that became home for people who have been socially excluded for many years or who have been living in chronic poverty and poor living standards" (K. Walsh, personal communication, August 20, 2014).

7. Reaping the Harvest from the Common Ground

In summary, socio-spatial exclusion is a characteristic of urban development driven by the commodification of housing as a facet of the property market. The Common Ground project offers an unusual opportunity to examine alternative approaches and solutions that reverse this trend.

Several factors have contributed to the fragmented urban landscape in Australia, creating pockets of disadvantaged neighbourhoods. A particular feature of the Australian situation is an idealisation of home-ownership, which has created a gap between poor and rich, perpetuating a housing situation based on socio-economic classification.

Against this backdrop the paper examines Lefebvre's "right to the city" which describes the development of the "capitalist city" and its negative effects for its inhabitants and the struggle for affordable spaces in all major Australian cities. High rent, a weak social system and a lack of public housing stock have forced low-income individuals and families to neglected neighbourhoods in the outer suburbs. A lack of social mix has meant that clusters of marginalised groups form large neighbourhoods of disadvantage, suffering from stigmatisation and social exclusion. This undermining of the social cohesion of cities creates long-term problems for residents and demands action on multiple levels.

In an attempt to reverse the development of urban exclusion, some cities have started to reclaim the right to influence urban life, driven either by emerging government initiatives or by the excluded, marginalized or discriminated communities themselves. This paper focuses on one such approach to urban regeneration-renewal and the redevelopment of the social and built environment.

Common Ground is a global movement that has started to make a positive impact on our socio-spatial disadvantaged cities. Brisbane's Common Ground project has emerged as the unusual combination of a government looking to invest and a community ready to develop a creative response to these problems. A network of commercial organisations has participated in designing, developing and testing a model for future development.

Among the lessons learned are that the community in general and the commercial sector in particular must be engaged early and thoroughly to prevent the exclusion and isolation from continuing, just on a reduced scale. Design professionals, policy makers and community need to re-think the delivery of solutions for the disadvantaged as part of the delivery of services for the whole community. This is a major modification of current approaches.

Further, the support programs for education, employment and health must be integrated with the de-

sign, development and implementation. They must also be implemented across the broader community to ensure that the social-mix is vibrant and engaged rather than post-hoc, ad-hoc and difficult.

A significant part of the challenge is that people's perceptions of community ownership of and engagement with assets and services such as those included in South Brisbane's Common Ground run counter to the capitalist notion of the urban, of property and of service delivery.

Design professionals, policy makers and community need to re-think praxis, encourage post-capitalist cities and create new forms of engaged life throughout the city. The use of planning and architecture for marginalisation and socio-spatial segregation must be reappropriated. These tools should be used not to segregate people but to construct new knowledge, new urban visions, social inclusiveness and commonality in difference.

8. Research Methodology

Three semi-structured in-depth interviews were conducted for this study. The study's research objective and the characteristics of the study population and the time constraint determined the number and nature of the participants.

The objective of the study: space is being understood as a social product (Henri Lefebvre). How has the planning of Australian cities contributed to a class and cultural division leading to concentrations of disadvantage? Can social initiatives such as Common Ground offer some answers and initiate change?

- Interview 1: Karyn Walsh, Coordinator Micah projects, 20 August 2014.
- Interview 2: Common Ground resident, male in his 50s (wanted to remain anonymous), 5 August 2014.
- Interview 3: Lesley Rankin, former hospitality employee near Hope Street South Brisbane, 5 August 2014.

Interviews are used to obtain data from individuals about themselves, their involvement with Common Ground, the implementation, progress, and outcomes the project, and any future plans for similar projects. Personal interviews are widely accepted for conducting basic social science research (Seidman, 2013). For these reasons, the researcher chose a descriptive research methodology and designed an interview to assess the initial success of Common Ground as a model of social inclusiveness in an established, affluent, inner-urban area. In light of time constraints and the relative weight of the expert interviews in relation to the literature review, three interviews, between 45 and 60 minutes each, has been deemed appropriate. The interviews consisted of three sections:

1. What do you see as some of the barriers to having a Common Ground Building in the midst of a thriving commercial and residential sector of South Brisbane?
2. Can you describe any examples of initiatives that are breaking down the barriers of social exclusion?
3. Do you have any advice on how to do things differently for any similar future projects?

The data collection, although narrow, will be part of the author's ongoing research into urban social inclusiveness.

8.1. Data Evaluation

The steps of the interview procedure are listed and described below:

1. Transcribing Interviews: all relevant parts of the recorded interview data were transcribed from audio to text format.
2. Reading and analysing the data in order to arrive at a general sense of the discussion and meaning of the data. This process identified relevant themes and categories.
3. Sorting the common themes and organising the material into chapters of information that give insight into the emerging levels of reflections.

Conflict of Interests

The author declares no conflict of interests.

References

Atlas, J., & Dreier, P. (1994). What went wrong? *National Housing Institute*, *September/October* (74), Retrieved from http://www.nhi.org/online/issues/77/pubhsg.html

Australian Common Ground Alliance. (2013, August 10). Queensland. *Australian Common Ground Alliance*. Retrieved from http://www.commonground australia.org.au/index.php/state/queensland.html

Brenner, N. (2012). What is critical urban theory? In N. Brenner, P. Marcuse, & M. Mayer, *Cities for people, not for profit: Critical urban theory and the right to the city* (pp. 11-23). New York: Routledge.

Burke, T. (1999). Private rental in Australia. *Swinburne Institute for Social Research*, 1-20.Retrived from http://www.sisr.net/publications/99burke.pdf

Butler, C. (2012). *Henri Lefebvre: Spatial politics, every-*

day life and the right to the city. Milton Park, Abingdon, Oxon, New York: Routledge.

Communities, A. D. (2011). *Australia state of the environment: An independent report to the Australian Government Minister for Sustainability, Environment, Water, Population and Communities.* Canberra: Department of Sustainability, Environment, Water, Population and Communities.

Cox, P., Graus, P., & Meyer, B. (2011). *Home: Evolution of the Australian dream.* Edgecliff: Jane Curry Publishing.

Engles, F. (1968). *The condition of the working class in England.* Stanford: Stanford University Press.

Groenhart, L. (2012, September 28). Growing up poor in Australia: What has happened to public housing? *The Conversation*. Retrieved from http://theconversation.com/growing-up-poor-in-australia-what-has-happened-to-public-housing-9853

Harvey, D. (2002). The urban process under capitalism: A framework for analysis. In D. Harvey & B. Watson (Eds.), *The Blackwell city reader.* Malden: Blackwell Publishers.

Hulse, K., & Burke, T. (2000). Social exclusion and the private rental sector: The experiences of three market liberal countries. *International Research Conference: Housing in the 21st Century.* Melbourne: Swinburne University of Technology.

Jacobs, K., Atkinson, R., Colic Peisker, V., Berry, M., & Dalton, T. (2010). *What future for public housing? A critical analysis.* Melbourne: Australian Housing and Urban Reseach Institute.

Lefebvre, H., Kofman, E., & Lebas, E. (1996). *Writings on cities.* Oxford: Blackwell.

Morris, A., Jamieson, M., & Patulny, R. (2012). Is social mixing of tenures a solution for public housing estates? *Evidence Base*, *1*, 1-21.

Mumford, L. (1961). *The city in history: Its origins, its transformation, and its prospects.* New York: Harcourt, Brace & World.

Pawson, H., & Herath, S. (2013). Developing a typology of socio-spatial disadvantage in Australia. In K. Ruming, B. Randolph, & N. Gurran (Eds.), *State of Australian Cities National Conference* (pp. 1-19). Sydney: State of Australian Cities Research Network.

Pelling, M. (2003). *The vulnerability of cities: Natural disasters and social resilience*. London: Earthscan Publications.

Micah Projects. (2013, August 10). Brisbane Common Ground. *Micah Projects*. From: http://www.micahprojects.org.au/community/brisbane-common-ground

Department of Housing and Public Works. (2013, August 4). *Queensland Government Department of Housing and Publics Works Housing Services.* Retrieved from www.communities.qld.gov.au/community-and-homelessness-programs/community-housing/news-on-brisbane-common-ground

Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and social sciences*. New York: Teachers College Press.

About the Author

Petra Perolini

Petra is a lecturer in Interior Design and a studio course convenor at the Queensland College of Art, Griffith University. Petra has a Bachelor Degree in Interior Architecture from Switzerland, and a Bachelor Degree in Visual Arts (Interior Design) from the Queensland College of Art; she also has a Masters Degree of Urban and Regional Planning from the University of Queensland. Her research focuses on design pedagogy and new practice, encompassing interdisciplinary design to push design thinking beyond current practice.

![Cogitatio logo]

Article

Poverty Suburbanization: Theoretical Insights and Empirical Analyses

Kenya L. Covington

Department of Urban Studies and Planning, California State University, Northridge, 18111 Nordhoff Street, Northridge, CA 91330, USA; E-Mail: kcovington@csun.edu; Tel: +1-818-677-6463; Fax: +1-818-677-5850

Abstract

Today almost every major metropolitan area in the U.S. has experienced rising poverty at a rate that surpasses its urban core (Kneebone & Berube, 2013, p. 2). Poverty suburbanization has accelerated about 3.3 percentage points over the last decade. In this article, factors associated with the growing share of poor in suburbs in the 100 largest metropolitan areas were examined. The analysis sought to address the overarching question: what metropolitan factors are associated with poverty suburbanization? Poverty suburbanization growth rates and temporal changes in metropolitan level factors for 2000 and 2008 are highlighted. Change regression results reveal important macro level and within suburb effects illuminating recent changes in the spatial distribution of the poor. Positive changes in housing affordability appear to open up access to suburban neighborhoods, while metropolitan job decentralization and residential segregation have countervailing effects on the suburbanization of the poor. Findings from this paper suggest that it is appropriate to place the suburbanization of poverty in the contemporary period within an urban political economy framework of urban growth and change.

Keywords

affordable housing; job sprawl; residential segregation; suburban poor

1. Introduction

The changing spatial distribution of the poor in U.S. metropolitan areas is of particular concern as the suburbs now accommodate the greatest share of the poor. The share of poor in suburbs is growing at an accelerated rate, yet it is not all together clear why the spatial distribution of the poor is shifting. Suburban poverty trends suggest that there have been important changes, including a portion of the poor have likely moved outside of cities, suburban residents may be poorer because of "Great Recession" related income losses or perhaps some affluent suburban residents have relocated outside of the suburbs, among other reasons. Nevertheless, poverty once predominantly a rural phe-

nomenon before the industrial revolution has shifted toward the country's largest metropolitan economic centers (Kneebone & Berube, 2013).

Growth in suburban poverty in the contemporary period represents a departure from the historical understanding of poverty circa 1890–1970 (Macionis & Parrillo, 2013, pp. 193-195; Mink & O'Connor, 2004, p. 2). Immigrants and migrants alike inspired by job opportunities in U.S. cities brought on by the intensifying industrial revolution, left rural places for cities and thereafter poverty became increasingly an urban problem (Chudacoff, Smith, & Baldwin, 2010, pp. 45-60; Jackson, 1985). Since this period, the poor have spatially spread out over the urban landscape. This includes a spreading well beyond cities and beyond older, inner-

ring suburbs (Frey, Berube, Singer, & Wilson, 2009). The change in the geography of poverty represents a dramatic shift in the landscape as suburbs were once places that the affluent escaped to (Hanlon, Short, & Vicino, 2010; Wilson, 1987); currently suburbs are much more diverse, racially and economically (Howell & Timberlake, 2014; Lee-Chuvala, 2012).

Today, a select number of suburbs grapple with what inner cities confronted about five decades earlier, serious neglect and flight of residents to newer neighborhoods beyond the urban fringe (Kneebone & Berube, 2013, pp. 57-76; Lucy & Phillips, 2000; Puentes & Orfield, 2002; Puentes & Warren, 2006). As suburban development continues to push outside of the urban fringe, employment centers have also continued to decentralize. Generally, jobs disproportionately are located in suburbs and jobs matching the skills of low wage workers in the retail and wholesale, leisure and hospitality sectors, as well as personal services sector are more often found in suburbs (Kneebone & Berube, 2013). There is some evidence that both the spatial distribution of affordable housing and jobs are attracting a larger share of the poor to suburban destinations but the extent is unclear.

Given the acceleration and relatively new concentration of poverty in the suburbs it is important to understand the factors associated with these changes. The overarching question is what metropolitan factors are associated with how suburban the poor have become? Is there evidence that changes in affordable housing or shifts in job decentralization are salient explanations? How might structural features in metropolitan areas such as residential segregation affect the suburbanization of the poor; is it likely to slow it or accelerate growth in the share of suburban poor?

Recently, scholars have pondered questions related to the suburbanization of poverty by mainly focusing on illuminating the changing trend over the last 50 years or so. Various works have acknowledged the suburban poverty growth rate as compared to that of cities since the 1970s or 1980s (Kneebone & Berube, 2013; Kneebone & Garr, 2010) and others have explored the suburbanization of poor subgroups such as housing subsidized households (Covington, Freeman, & Stoll, 2011) and poor minority groups (Howell & Timberlake, 2014). In 1970, fewer than 24 percent of the poor were located in the suburbs of metropolitan areas; by 2010 55 percent of the metropolitan poor population lived in suburbs (Kneebone & Berube, 2013, pp. 18-19). There is agreement overall that the growth in the suburban poor population began accelerating in the 1980s, reaching its height between 2000 and 2010.

The present article focuses on the spatial distribution of the poor in suburban neighborhoods of the 100 largest metropolitan areas in the nation. It is important to note that this research does not attempt to explain mobility decisions of the poor. This article extends the

literature by focusing primarily on changes in the spatial distribution of the poor in suburbs. It makes the following contributions to the literature. First, current data for the most intense period of poverty suburbanization from 2000 to 2010 is analyzed with an interest in the spatial distribution of poor people across suburbs by level of income and job concentration. Prior research on the suburbanization of poverty has explored this period (Kneebone & Garr, 2010; Covington, Freeman, & Stoll, 2011) predominantly in a way that describes the trend but the current article uses a nuanced multivariate analysis of the largest metropolitan areas decomposing those metropolitan factors most associated with changes in the suburban poor. Second, very few multivariate examinations of suburban poverty growth have been undertaken (Howell & Timberlake, 2014); this article offers an extension of existing multivariate analyses on the share of suburban poor. It presents estimates of the relationship between changes in the suburban poor and changes in metropolitan structural factors such as housing affordability, job decentralization, and residential segregation. In this article ideas are layout for placing recent changes in the spatial distribution of poverty in large U.S. metropolitan areas within the context of urban growth and neighborhood change.

Overall, results indicate that the growth rate of the suburban poor reveal an unprecedented opening up of suburbs to the poor. Key findings emphasize the importance of broader population changes and the heterogeneity of suburbs are crucial to understanding the suburbanization of poverty. Furthermore, changes in the spatial distribution of the poor are associated with changes in housing affordability in the suburbs. Perhaps this is related to growing rent pressures in expensive metropolitan housing markets (Bravve, Bolton, Couch, & Crowley, 2012; Glaeser, Kolko, & Saiz, 2001, p. 4; U.S. Census, 2003) which may be forcing low-income households in core urban locations to seek lower rent districts in the suburbs. This has great implications, particularly for housing authorities within large metropolitan areas; housing authorities may need to reconsider how changes in the geography of poverty might prompt administrators to balance services and resources to better serve the emerging needs of suburban service areas.

Understanding factors associated with poverty suburbanization is essential for retooling suburban municipal leadership to manage important changes taking place. Generally, poor residents that have moved to the suburbs are searching for a better circumstance to make a living. Various scholars have noted that the poor and racial and ethnic minorities move to the suburbs because they desire to escape problems of the inner city, such as crime and low job access, to obtain larger and more affordable housing in the suburbs (see Pfeiffer (2012) for an extensive discussion). However, there is evidence that the spatial distribution of the

poor in suburbs may exacerbate social and political relations within neighborhood. It is also quite possible, that future reactions from households and municipalities may lead to suburban exclusionary practices, particularly in high-amenity suburbs. Further research will be required to understand how the suburbanization of poverty may be affecting the social and political dynamics within newer suburban poor places as compared to those existing suburban poor neighborhoods.

2. Theoretical Framework

The primary goal of the paper is to identify factors that are associated with recent changes in the suburbanization of the poor. The main research question is what structural features in large metropolitan areas best explain changes in poverty suburbanization 2000 to 2008? The focus is on core economic, social and population characteristics of metropolitan areas. Economic characteristics and economic processes such as, housing affordability, viability of the local economy, and job decentralization are considered. Overall population changes and similarly situated poor groups are considered to discern how the spatial distribution of these groups are related to suburban poverty more generally. Residential segregation is used to highlight complicated social relationships in metropolitan areas that may be serving as push and pull forces instrumental in the suburbanization of the poor.

Ultimately, there are two primary aims of this research: 1) through an empirical analysis, illuminate major pull and push factors associated with changes in the geography of poverty and 2) place the suburbanization of poverty within a broad urban change framework. Hence, in this section, classic theories (Human Ecological Approach, Economic Theory/Rent Theory, and Political Economy) are considered as they may provide a framework for understanding the suburbanization of poverty and how it fits into a broader context of urbanization. Below each of the theories is presented along with important metropolitan factors believed to characterize the dominate relationships that are core to the theories.

It is instrumental to look at one of the most popular classical models of urban growth to classify the suburbanization of poverty. From the ecological approach, Burgess's (1925) concentric zone diagram of Chicago described the natural unfettered sifting and sorting of people and land uses across the urban landscape. Under this model, the poor spatially were generally located in close proximity to the urban core, as it was more important to be close to jobs in the inner city than to cheaper and newer housing in the commuter zone (Burgess, 1925). Post industrial revolution and for decades after, the spatial distribution of people within metropolitan areas reflected the connection that poor people had to the urban core. The fact that a dominant share of the poor now reside in the suburbs signals a

departure from traditional spatial patterns. Within the context of the classic work contributed by human ecological theorists Parks and Burgess, the new trend perhaps reflects a spatial realignment of access to economic and social opportunities. Below several metropolitan level factors are considered for their influence on the spatial distribution of the poor.

2.1. Factors Associated with Changes in the Suburban Poor

Suburban development well outside of the urban fringe remains the dominant pattern of development within the U.S. (Glaeser & Kahn, 2001; Bullard, Johnson, & Torres, 2000; Jackson, 1985). On average, firm locations are affected (Kneebone, 2009) and there is mounting evidence showing that increases in job sprawl lead to job movement away from particular neighborhoods, generally away from urban neighborhoods and towards suburban neighborhoods that tend to be more racially and economically homogenous (Martin, 2001; Raphael & Stoll, 2010). Within the contemporary context, undoubtedly, jobs continue to disproportionately locate on the suburban fringe (Glaeser, Kahn, & Chu, 2001; Stoll, 2006). As a result, continuing job decentralization may serve as a pull factor for poor households into suburban neighborhoods.

Dynamic shifts in regional economies are important to understanding the spatial distribution of the poor. Numerous scholars acknowledge that the prosperity of the 1990s benefited poor and minority workers in ways that had not been observed during previous decades (Cherry & Rodgers, 2000; Hines, Hoynes, & Krueger, 2001; Holzer, Raphael &, Stoll, 2006; Krueger & Solow, 2001; Mishel, Bivens, Gould, & Shierholz, 2002; Partridge & Rickman, 2008). By 2000 unemployment rates dropped considerably for groups who had confronted persistent underemployment. During this period of economic prosperity metropolitan areas were characterized by expanded access to jobs and steep declines in concentrated poverty for blacks and Latinos alike (Jargowsky, 2003; Raphael & Stoll, 2002).

Before the 2001 economic slowdown, economic prosperity appeared to be widespread (Freeman, 2001); by 2006 the economic climate shifted. The U.S. experienced a "Great Recession" from 2007–2012 that would cause a tremendous loss of jobs, reduce investment value, and spur the greatest foreclosure crisis since the "Great Depression" (Cochran & Malone, 2010, pp. 331-335). The spatial distribution of foreclosures was widespread. Nearly one in ten homes with a mortgage was at risk of foreclosure during this period (Bocian, Smith, Green, & Leonard, 2010). Both cities and suburbs were affected; however, suburban residential areas were hit extremely hard (Smetanka, 2011; McGirr, 2012). The vast majority of foreclosures were in suburban areas and suburban neighborhoods

with higher rates of poverty were more likely to experience higher foreclosure rates (Schildt, Cytron, Kneebone, & Reid, 2013).

Economic conditions that surfaced during the recession were likely to extend the spatial pattern of suburban poverty for several reasons. First, the economic pressures from job loss and housing foreclosure increased poverty and slowed mobility options (Schildt, Cytron, Kneebone, & Reid, 2013). Nevertheless, perhaps it created new options for housing as a result of the unprecedented foreclosures and the rush for financial institutions to shed low value properties (Immergluck, 2012). Nationally, rental and home ownership programs such as the Neighborhood Stabilization program were designed to convert foreclosure and bank owned (REO) properties into housing that low-income buyers and renters could access (Department of Housing and Urban Development [HUD], 2014). Additionally, there is some evidence that homeowners including owners of multi-family dwellings who were experiencing the threat of foreclosure may have looked to local housing authorities to participate as a landlord in the Housing Choice Voucher (HCV formerly Section 8) program (WoTapka, 2010). Participation as a landlord in the HCV program would ensure voucher portion of the monthly rental payment. Additionally, over the period under investigation, the number of HCV recipients suburbanizing increased significantly (Covington, Freeman, & Stoll, 2011). Hence, to the extent available, affordable housing is believed to be an essential feature in the suburbanization of poverty.

Housing and other characteristics such as: crime and transportation access, the latter two not studied explicitly here, contribute to the overall desirability of a neighborhood because of the influence it has on personal utility or quality of life (Glaeser, 2008, p. 19). According to William Alonso (1964, p. 72) "the individual will choose that point of his locus opportunities at which his utility is maximized…". Another way to think about this is that certainly people seek to connect to parcels of land that in their view allow them to reach their fullest potential. Nevertheless, the most desirable lots on average will be more expensive and hence, there are limitations to accessing land according to its cost reflective of the amenity that it represents.

Moreover, the spaces that people and firms come to occupy are a function of what they are willing to pay to obtain access to the advantages that come with the land. For example, some parcels of land improve proximity to efficient transportation routes for trade or for commuting by local residents (Giuliano, 1989, p. 145) and some parcels offer lower crime rates or pollution, thereby driving up the rent cost of the parcel (generally shown in housing price hedonic models as in Roback, 1982). This philosophical grounding is a departure from ideas that people come to occupy spaces naturally, in fact, the observed distribution of people across the urban landscape is in large part due to willingness to pay (same as ability to afford) for the prime land. To further explore classic rent theory accepted wisdom within the context of the suburbanization of the poor, the spatial distribution of housing affordability and the share poor will be examined later.

In an effort to improve poor people demand for decent housing, housing options in low poverty neighborhoods were extended to the poor in the 1990s. The Department of Housing and Urban Development (HUD) as an experiment encouraged housing subsidized households to consider affordable housing options in low-poverty neighborhoods. Moving to Opportunity (MTO) demonstration project was originally authorized by Congress in 1992 and made use of rental assistance vouchers, in combination with intensive housing search and counseling services, to assist low-income families to move from some of America's most distressed urban neighborhoods (Goering et al., 1999; HUD, 2014). While many program participants moved to lower-poverty suburban neighborhoods after counseling services, a substantial number stayed; they primarily reported strong social connections between friends and family in the central city location (Goering et al., 1999). The lack of social networks in the suburbs may push the poor away from suburban locations; however, the development of social ties overtime may increase with a growing critical mass of poor entering the suburbs. In this regard, increases in the suburbanization of Housing Choice Voucher recipients (referred to as HCVRs throughout this paper) who seem to be accompanying increases in the suburban poor more generally may indicate that suburban locations have become an important residential alternative to poor households overall (Covington, Freeman, & Stoll, 2011).

Beyond the role of subsidized housing, the "filtering process" has been, in part, responsible for poor households entering older inner ring suburbs as higher income households moved away from housing stock that has aged in search of new higher quality housing primarily on the urban fringe (Baer & Williamson, 1988; Lowry, 1960). Yet, gentrification and back to the city trends seem to be slightly responsible for a minority of affluent households movement away from suburbs closer to the city core, primarily within high tech corridors in the West and locations in the South and Northeast to overcome travel time constraints (Haughey, 2001; Kennedy & Leonard, 2001; Lee & Leigh, 2007, p. 149; Sohmer & Lang, 2001; South & Crowder, 1997).

The sifting and sorting of households is taking place in a housing market where affordable housing demand significantly outpaces supply (Bravve et al., 2012). The poor's access to affordable housing is significantly constrained by the limited supply. For very low-income renters, 60 adequate units are available per 100 renters (HUD, 2011, p. viii) and supply is most scarce in large metropolitan areas (Bravve et. al., 2012). The housing

options of the poor are much more limited than those of the middle class and affluent and often their housing costs consume a majority of monthly wages.

> "Units affordable for the poorest renters have lower vacancy rates than those units affordable for higher income groups because the high demand and limited supply cause greater competition for such units. Higher income renters occupy about 42 percent of the units that are affordable to extremely low-income renters, who earn less than 30 percent of Area Median Income (AMI)." (HUD, 2011, p. viii)

Given the housing shortages that the poor face, marginal shifts in housing affordability in the suburbs may attract poor households. Nevertheless, housing affordability is complicated by local policy constraints such as exclusionary zoning and other tools that may be instituted in suburban neighborhoods.

2.2. Residential Racial Segregation

There are several important ways that segregation may influence the rate that the poor are suburbanizing. It is essential to note that there is an important intersection between race and class present because a disproportionate number of minorities are also poor (Pattillo, 2005). Hence, I am more concerned about the association between changes in residential segregation and suburban poverty with an acknowledgement of the racial dynamic. In this case, I assert that the core connection is to deep seated structural characteristics that dominate segregated communities such as local land use policy, and real estate investment patterns.

One of the strongest most widely used local land use policies are zoning ordinances. Generally, zoning ordinances are used to control land use (Levy, 2013, p. 142). Motivated by health and safety concerns, originally zoning was critical for separating incompatible land uses and limiting the effects of externalities (Pogodzinski, 1991). Beyond the core goals, two primary forms of zoning have been used to further control land use: fiscal zoning, and exclusionary zoning. Fiscal zoning is when a jurisdiction employs zoning regulations to improve the tax base by attracting residents whose contributions to the tax base exceed their use (Pogodzinski, 1991, p. 145). Additionally, exclusionary zoning is the desire to exclude or restrict a member of some racial, ethnic, or social class from occupying a jurisdiction (Farley & Frey, 1994; Levy, 2013, pp. 80-82). Typically, restrictions are achieved by passing ordinances that limit development in part, or in whole to single-family houses on large parcels of land (Levy, 2013, p. 80) making it very difficult for people of lesser means to live in a municipality by preventing the construction of housing that they can afford.

Some exclusionary practices have been challenged in court and precedent set by Mt. Laurel, NJ cases, for example, encourages suburban jurisdictions to eliminate exclusionary zoning ordinances and encourage the provision of affordable housing to low and moderate-income households (Levy, 2013, p. 81). Hence, while municipalities' zoning practices may have an exclusionary effect on the poor and minority households, there has been some progress to address and eliminate these practices over the last three decades that may have generated additional affordable housing options in higher income suburban neighborhoods (see the discussion in Levy, 2013, p. 82 on the abolishment of Regional Contribution Agreements in New Jersey as evidence that loopholes to circumvent jurisdiction fair share responsibilities are being given some consideration). Nevertheless, exclusionary practices exercised suggest that residential segregation in the suburbs may have a push effect on the suburbanization of the poor.

Secondly, uneven development affects us all but leaves behind the poorest members of society (Gotham, 2002). Lessons from Henri Lefebvre (1994) on the power of those that control real estate investment provide the context for this view. The French sociologist asserts that the spatial distribution of people along the urban landscape is influenced by institutions and individuals whose real estate investment decisions are determined by potential political, economic and social gain. Indeed, in the U.S. there are examples of powerful real estate actors exercising control over real estate investment. In the early 1920s the National Association of Real Estate Brokers (NAREB) promoted in a training document published in 1922 that "the purchase of property by certain racial types is very likely to diminish the value of other property" (U.S. Commission on Civil Rights, 1973, p. 3). Thereafter the national organization, the powerful governing body of realtors, NAREB, promoted a "code of ethics" that encouraged the restriction of real estate property to nonwhites as a performance of some sort of fiduciary responsibility to white residents. Nationally, for decades real estate agents and other real estate actors performed their professional tasks upholding the original code of ethics thereby deeply affecting the pattern of real estate investment in U.S. metropolitan areas (Gotham, 2000; Helper, 1969).

Later, the power of those that controlled real estate investment is observed during the period of Urban Renewal and the construction and maintenance of Public Housing (Barron & Barron, 1965). In each case, the actual investments or lack thereof motivated by profit seeking became the deciding factor in the stability, decline or revival of neighborhoods. Except in cases where local interest organized against such uneven development as did Jane Jacobs when she helped to organize New York City residents against Urban Renewal (Jacobs, 1961). It appears that real estate investments push the growth of a city and perhaps even of a met-

ropolitan region in particular ways. Among other factors, residential segregation may play an important role in the growth rate of suburban poverty, potentially spurring movement toward suburbs or constraining access for certain groups.

Along with other important metropolitan features, residential segregation has dynamically shifted in the recent period. The 2000 segregation levels mark the lowest levels recorded since 1920. According to Glaeser and Vigdor (2001, pp. 13-14) 43 metropolitan areas witnessed a decline in segregation greater than 10 percent. Despite, persistently high rates of residential segregation between White and African Americans, overall it declined by 5.5 percent from 1990 to 2000 (Glaeser & Vigdor, 2001, p. 1). These shifts may be reflective of changes in the social and political dynamics present within metropolitan areas. For example, shrinking residential segregation trends may be related to the adoption of more inclusive zoning policies by the municipality. Suburban communities committed to incorporating a more diverse set of housing options affordable to low and moderate-income households likely shift the geography of poverty. In the following section, the data and methods for analyzing the relationship between recent increases in the suburban poor and metropolitan factors such as residential segregation are presented.

3. Data and Methods

Several data sources are required to address the overarching research question: what metropolitan factors are associated with the suburbanization of the poor? First, data for the population characteristics used to develop suburban poverty rates, the description of suburbs by income and fair market rate housing came from the 2000 U.S. Decennial Census and the 5-year, 2005–2009, American Community Survey (ACS). The ACS is the former decennial census "long form". The ACS long form is conducted annually utilizing smaller samples than the decennial census. Five-year estimates are used since multiple years worth of summary data are more reliable than the single year summary files. These data were originally organized by tract for the largest 100 MSAs and later average values for each MSA were computed. Data from 2000 and 2008 were ultimately merged by MSA using the statistical software system STATA. Following is a brief discussion about how suburbs were defined.

The suburbs are defined using U.S. Census Bureau definitions, and census tracts are identified as cities or suburbs based on the location of their centroid; those census tracts that cross city or suburban boundaries are allocated to either area based on whether their centroid falls in either location. Metropolitan statistical area (MSA) definitions are consistent with the U.S. Office of Management and Budget definitions in 2008. Primary cities are defined according to the methods

outlined in several Brookings publications (e.g., Berube & Kneebone (2006)), and include those that appear first in the official MSA name, as well as any other city in the MSA title that has a population of at least 100,000.

The alternative method is to assign census tracts to cities or suburbs based on their population distributions at the block level. In this way, an allocation factor is generated using this method that estimates whether the population density is greater in the city or suburban portion of the census tract, and is assigned as such. This approach was not employed because the population density of HCV recipients could not be determined since the lowest geographic level of information provided on residence is at the census tract level.

Second, data from HUD's Picture of Subsidized Housing 2000 and 2008 are used to generate a comparison group of Housing Choice Voucher Recipients (HCVRs). This data set describes the characteristics of HUD assisted housing including the type of program, and population characteristics of the assisted households at the census tract level. As such, the Picture of Subsidized Housing allows us to identify the geographic location of HCV recipients as well as key demographics such as their race/ethnicity.

Third, the suburbs are characterized by their variation in job accessibility. Data for employment counts are from the U.S. Department of Commerce's ZIP Code Level Business Patterns data, which of course is only available at the ZIP code level. These data provide information on the number of firms in a zip codes as well as data on their employment size, sales figures, as well as other establishment economic and characteristic data. Job accessibility is the ratio of people (ages 21 to 64) to total jobs in zip codes in 2000 and 2008 for the largest 100 metro areas in the sample. To generate equivalent geographic comparison with the HCV recipients' data, census tracts were converted to zip codes using a centroid based allocation method, similar to that described above.

3.1. Dependent Variables

The dependent variable is the difference in the share poor in suburbs 2000 and 2008. This variable is computed by generating the share of the poor that reside in suburban tracts for the 100 largest MSAs in the nation. Two cross-sections are obtained and the average share poor in suburbs is tallied for each MSA, 2000 and 2008. For the second set of dependent variables metropolitan area suburban tracts are organized into income treciles (low, medium and high) and mean poverty percents for each group are generated by MSA. Similar to above, suburban poverty growth rates were generated for low-income, middle-income and high-income suburbs for 2000 and 2008 cross-sections. The descriptive results presented below indicate that suburban poverty has increased over 2000 to 2008; nevertheless, these re-

sults do not consider the various factors that are associated with suburban poverty growth. Table 1 displays all the dependent variables used in the study. The multivariate analysis takes into consideration various metropolitan characteristics also specified in Table 1.

A key concern in analyzing data at the sub-metropolitan level is how to define these areas, especially those within the suburbs. For instance, some use a county based definition, in which "first" suburbs are defined as central counties (excluding the central cities in those counties) and any county adjacent to the central city. But such a definition is problematic, in that adjacent counties (e.g., Montgomery County, MD, which is adjacent to Washington, DC) can often have quite heterogeneous populations. They can also have quite high average incomes. On the other hand, defining sub-metropolitan areas on the basis of municipalities is also problematic, as municipalities can vary enormously in size and jurisdiction. In this paper, this issue is avoided by using aggregate census tract data, which are small enough to capture the enormous heterogeneity across areas.

3.2. Independent Variables

To begin to understand the features within metropoli-

tan areas that are associated to the suburbanization of poverty a number of comparisons are made. The suburbanization of the total population, HCVRs and affordable housing units are highlighted in the paper. The suburbanization of the total population is computed nearly identical to the share poor measure, the main difference is that the focus is on the total population. The average rate is generated by computing the share for each suburban track comprising MSAs.

HCVRs are an important subset of the poor. It is expected that the poor receiving housing subsidies should provide an excellent comparison for what one would expect to observe for the overall poor. In fact, the characteristics of HCVRs suggest that they are a more disadvantaged group than the poor generally. Suburbanization of Housing Choice Voucher recipients was measured using data from HUD's Picture of Subsidized Housing. As such, the Picture of Subsidized Housing allows us to identify the geographic location of HCV recipients as well as other key demographics. The data were extracted for the years 2000 and 2008. The paper includes comparisons of the suburbanization rates of the poor overall to HCV recipients and affordable housing over the same period.

Table 1. Description of dependent and independent variables (weighted).

Dependent Variables Description	2000 Mean	2008 Mean	2000–2008 Mean	Min.	Max.	Std. Deviation
Δ00–08 MSA Poverty Suburbanization rate: average share of poor enumerated by suburban tracts, difference 2008–2000	0.503	0.536	0.033	−0.042	0.139	0.024
ΔLow-Income Suburbs Share Poor 00–08 MSA average share of poor enumerated for low–income suburban tracts, difference 2008–2000	0.392	0.397	−0.006	−0.260	0.090	0.051
ΔModerate-Income Suburbs Share Poor 00–08 MSA average share of poor enumerated for moderate-Income suburban tracts, difference 2008–2000	0.387	0.368	−0.018	−0.170	0.120	0.037
ΔHigh-Income Suburbs Share Poor 00–08 MSA average share of poor enumerated for high-Income suburban tracts, difference 2008–2000	0.215	0.240	0.026	−0.044	0.195	0.038
Independent Variable Descriptive Statistics						

Independent Variables Description	2000 Mean	2008 Mean	2000–2008 Mean	Min.	Max.	Std. Deviation
ΔSuburban Growth Rate 08–00	0.676	0.691	0.015	−0.021	0.084	0.018
ΔSuburban HCVR Growth Rate 08–00	0.473	0.494	0.021	−0.160	0.193	0.059
ΔSuburbanization of 50% FMR Units 08–00	0.443	0.472	0.028	−0.074	0.216	0.037
ΔSuburbanization of FMR Units 08–00	0.504	0.529	0.025	−0.026	0.156	0.025
ΔPercent College Educated 25 08–00	27.1	29.9	2.83	−0.030	4.60	0.941
ΔRatio of NHW male 16–64 employed to persons 08–00	0.813	0.771	−0.042	−0.230	0.010	0.023
Δ Black-White Segregation (Dissimilarity Index) 08–00	0.632	0.622	−0.008	−0.150	0.330	0.051
Δ Job Sprawl 10 miles 08–00	0.435	0.415	−0.021	−0.210	0.060	0.028
Δ Percent Foreign Born Hispanic 08–00	34.8	38.9	4.1127	−4.58	16.16	3.65631

The suburbanization of rental units renting 50 percent below Fair Market Rate (FMR) levels is compared to the poor suburbanizing. This was done by identifying the number of rental units reported in the 2000 Census and 2005–2009 American Community survey that fell at and below the FMRs reported by HUD for those years for each respective metropolitan area. Whereas the comparisons with suburbanization of HCVRs will elucidate the extent to which poorer households in general are locating in the suburbs regardless of the affordability levels, the comparison with units 50 percent below metropolitan specific FMRs will give us a sense of the availability of affordable housing options in suburbs. While FMR units are defined as reasonably priced housing it is still very difficult for poor households unsubsidized to secure affordably priced housing. Take for example the Los Angeles-Long Beach metropolitan area, the FMR for a 2 bedroom unit is $1,421.00 (HUD, 2013). For the average poor household making about $19,000.00, the poverty threshold for the typical sized family of 4, two adults and two children would pay over 50 percent of their monthly income on housing expenses. The 50 percent FMR measure is an affordable housing measure necessary to more precisely capture housing affordable for households in poverty.

Suburban areas are characterized by income level and by job accessibility. First, median household income data for 2008 from the 2005–09 ACS and for 2000 from Census 2000 for each census tract for all metro areas in the study are obtained. Household income treciles (33rd, 66th percentiles) are calculated for each metro area for both years. Next, high-income census tracts are defined as those that fall between the 66th and 100th percentile in the median income distribution of the metro area, moderate-income between the 33rd and 66th percentile in the distribution and low-income as below the 33rd percentile in the distribution. Given this, high-income suburban areas are defined as those with suburban census tract median income levels that fall above the 66th percentile of metro area, and this is continued for each trecile which generates three suburban income groups (low, moderate and high).

Second, suburban areas are characterized by their variation in job accessibility using the same method, except zip code level sub-geography units are used. Employment counts from the U.S. Department of Commerce's ZIP Code Level Business Patterns data provide the main jobs data, which of course is only available at the ZIP code level. These data provide information on the number of firms in a zip codes as well as data on their employment size, sales figures, as well as other establishment economic and characteristic data. Job accessibility is defined as the ratio of people (ages 21 to 64) to total jobs in zip codes in 2000 and 2008 for the largest 100 metro areas in our sample. Utilizing the income and job accessibility suburban tract distinctions, low-income to high-income subur-

banization of poverty rates are generated as were low job to high job accessible suburbanization of poverty rates. These variables measure the extent to which the poor have come to occupy prime suburbs, those suburbs that seem to offer increased access to economic and social opportunities (i.e. jobs, good schools, low crime rates, etc.).

Additional variables of concern are residential segregation, job sprawl and economic robustness measured by white male worker employment. The strength of the labor market can be measured by the extent to which white men find gainful employment. This can also be viewed as a measure that more directly describes the robustness of a job market because white men arguably experience fewer constraints, such as discrimination, in finding work (Cherry & Rodgers, 2000).

The primary measure of residential segregation is computed using the index of dissimilarity; this is also the most commonly used measure of segregation, but not the only one in the segregation literature. Others include the isolation, exposure and entropy indexes, for example, and these measure different aspects of the scope or kind of segregation. These alternative measures of segregation are well noted in the literature and their differences and consequences have been examined elsewhere as alternative measures of segregation (Massey & Denton, 1993). Alternative measures of segregation were explored, however, the dissimilarity index provided the most stable measures as identified during analysis and thus their results are not reported.

The data used to measure the index of dissimilarity comes from the 2000 U.S. Census and the 2005–2009 ACS. The dissimilarity score between blacks and whites is given by:

$$D = \frac{1}{2} \sum_i \left| \frac{Black_i}{Black} - \frac{White_i}{White} \right|.$$
(1)

where $Black_i$ is the black population residing tract i (where i = (1,…,n) and indexes the tracts in a given metropolitan area), $White_i$ is the white population residing in tract i, Black is the total black population in the metropolitan area, and White is the total number of whites in the metropolitan area. The dissimilarity index ranges between 0 (perfect integration) and 1 (perfect segregation). Indexes of dissimilarity are calculated for white-black pairings for 2000 and 2008. There are a number of potential problems with the use of the dissimilarity index to measure residential segregation. First, although it measures evenness of population distribution, it may not actually measure the physical distance between average members of two racial groups. The index measures the imbalance across geographic sub-units of the metropolitan area (for example, tracts) between members of the population. To take an extreme example, suppose that all black residents resid-

ed in one tract of a city while white residents were located in a different tract. Whether these tracts are one mile apart from one another or 20 miles apart will not influence the dissimilarity measure. In both instances, the dissimilarity index will be equal to 1. Nonetheless, as a summary measure, the dissimilarity measure does allow uniform comparisons across geographic areas.

Despite these concerns, there are a number of strengths of the dissimilarity index. It allows for residential segregation to be measured in a uniform way across metropolitan areas. The dissimilarity measure is calculated in the exact way across metropolitan areas using the same data sources and thus allow for direct metropolitan area comparisons.

Further, the actual numerical value of the dissimilarity index has a convenient interpretation. Specifically, the index can be interpreted as the percent of either of the two racial groups that would have to relocate to different areas to completely eliminate any geographic imbalance. For example, as Table 1 indicates, the 2000 index value describing the imbalance between the residential distribution of blacks and whites is 0.559 (or 55.9 when multiplied by 100) on average for all metropolitan areas in the study.

Job sprawl is measured by observing the percent of jobs 10 miles outside of the CBD. Three mile and five mile radius measures outside of the CBD were also considered. This variable is an improvement over jobs per capita because it captures relative job decentralization. Analysis on how job movement away from the core of the central business district influences the suburbanization of poverty may provide additional information about how relative geographical changes in labor demand may be affecting the location decisions of the poor. It is expected that as jobs decentralize it may serve as a pull factor for the poor to relocate outside of the central city and towards the urban fringe. The job sprawl data are drawn from the 1999 U.S. Department of Commerce's ZIP Code Business Patterns files, and have been used elsewhere (Glaeser & Kahn, 2001; Stoll, 2006). Job sprawl is defined as the proportion of metropolitan jobs located outside of a 10 mile radius of the metropolitan area's Central Business District (CBD), and it has a straightforward interpretation: higher percentages of a metropolitan area's employment located outside the 10 mile ring around the CBD implies higher sprawl.

A set of demographic variables are included in the analysis. Percent in college, percent foreign born Hispanics are included as controls in the analysis. Descriptions of the measures are presented in Table 1. The following section describes the empirical results.

4. Results

4.1. Descriptive

For the analysis suburban poor growth rates and tem-

poral changes in metropolitan level factors for 2000 and 2008 are highlighted. Overall, the suburbanization rate of the overall population in 2008 was 0.691 and the poor suburbanization rate was 0.536 (refer to Table 1). Fair market rate housing and Housing Choice Voucher recipients (HCVRs) overall are suburbanizing at a lower rate than the poor overall at 0.529 and 0.494 respectively. Relatively reasonably priced housing seems to be suburbanizing at a rate slightly lower than the poor overall (3.3 percent). Affordable housing, that which is 50 percent of FMR suburbanized 2.8 percent versus 2.5 percent for FMR housing over the period. Moreover, other poor groups such as HCVRs are suburbanizing at a slower rate; the HCVR share in suburbs grew 2.1 percentage points. These changes over the decade outpaced the suburbanization of the overall population at 1.5 percentage points.

4.2. Poverty Suburbanization and Suburb Type

This section explores the types of suburbs that the poor reside in. The spatial distribution of the poor is compared to that of the overall population, other poor groups and affordable housing. This examination is important because recent research has demonstrated that suburban areas differ widely in their socioeconomic characteristics and in the types of opportunities they offer, with lower income suburbs demonstrating slower employment growth (and faster population growth) over the recent decade that is likely to negatively influence employment opportunity and economic mobility prospects more generally. Today, the quality of the suburbs varies tremendously (Kneebone & Berube, 2013; Mikelbank, 2004; Lee-Chuvala, 2012) potentially causing a wide distribution in the desirability of suburban neighborhoods. Therefore, an important question is which type of suburbs are the poor disproportionately located? And does the growth rate seem to be associated with suburban characteristics such as: affordable housing and jobs?

Figure 1 documents the distribution of the poor (and the comparison groups) across suburbs in 2008. The data show that despite the increase of the poor locating to high-income suburban areas over the 2000 to 2008 period (see Figure 2), that by 2008 a plurality of the poor (40 percent) still lived in low-income suburbs. Moreover, in relation to the comparison groups, HCV recipients (48 percent) are most disproportionately located in low-income suburbs. A higher share of poor people live in low-income suburbs for a variety of reasons, some obvious and others not so obvious. First, reports from evaluations of the MTO program documented respondent statements explaining that program participants even after receiving counseling about suburban neighborhood opportunities, did not choose to relocate because they did not want to move away from friends and family, and other social networks (Goering

et. al., 1999). Additional justifications for staying are associated with asymmetrical information (lack of information about options), fear of discrimination, and lack of transportation (reliable car and difficulty accessing public transportation) (de Souza Briggs, 1998).

Affordable housing options are expected to be important to the mobility of the poor. Fair market rate housing is defined as reasonably priced housing and 50% fair market rent is on average 50% below the area median (in this paper 50% FMR is referred to as affordable housing). The dominant share of affordable housing is located in low-income suburbs (47 percent). On average, about 17 percent of affordable housing exists in high-income suburbs. Generally, during the period 2000–2008 the only aggregate growth in housing affordability is observed in high-income suburbs in the largest 100 metropolitan areas in the U.S. (see Figure 2). Perhaps persistent difficult housing affordability conditions in high-income areas render these suburbs prime areas for marginal increases in housing affordability since low and moderate-income suburbs have the greatest share of affordable housing. Moreover, recently more affordable housing is being built with seniors in mind. Federal programs such as the Low Income Housing Tax Credit (LIHTC) program funds may be instrumental in marginal increases in average housing affordability in high-income suburbs.

Figure 2 shows the change in the distribution of the poor (and the comparison groups) across desirable features of suburban neighborhoods over the 2000 to 2008 period. Attention is focused on high-income sub-

urbs and note that the poor population made gains over this period in locating to high-income suburbs, the pace of that change was more accelerated than the other comparison groups. For example, the growth in affordable housing was most pronounced in high-income suburbs; likely a precursor for the accelerated movement of the poor to high-income suburbs. A comparison poor group, HCVRs living in high-income suburbs, increased by 2.1 percentage points over the period while, the largest declines for HCVRs were in low-income suburbs. The temporal changes in the share of poor by the income of the suburbs 2000 to 2008 indicate that most of the growth in suburban poverty occurred in high-income suburbs and also in high job accessibility suburbs.

Figure 2 also shows average differences in the share of poor by the job accessibility of the suburbs. Job access is desirable. By 2008 28.5 percent of the poor reside in high job access suburbs and their growth rate (2.7) is slightly beyond that of the total population growth rate (2.1). HCVRs, arguably more at risk than the poor generally (Schwartz, 2013) have a slightly accelerated growth rate. On average, there is a 2.8 percent growth rate in HCVRs in high job accessible suburbs. Despite growth in suburban poverty in high-income suburbs, generally speaking, the dominant share of the poor reside in medium and low job access suburbs (see Figure 1). There was a surprising 4.5 percentage point growth in affordable housing in high job accessible suburbs. Nevertheless, the lions-share of affordable housing is in low job accessible suburbs (40.9 percent).
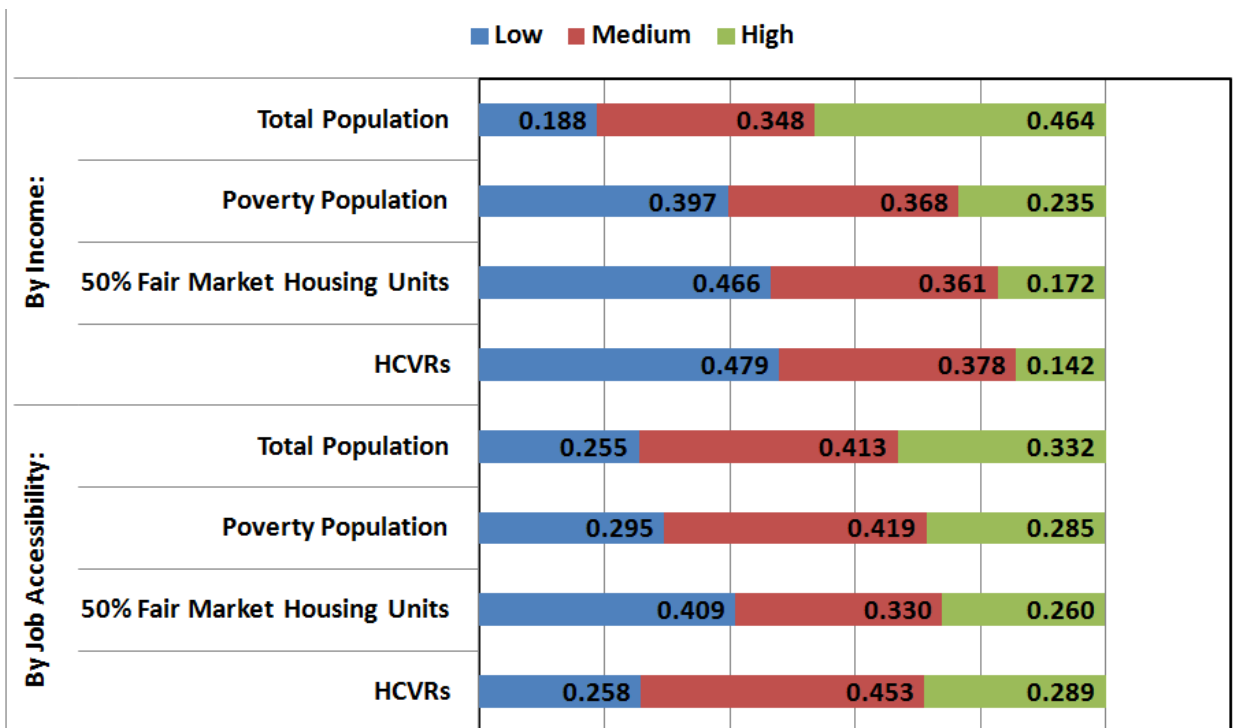
Figure 1. Distribution of total population, poor, HCVRs and FMR by select suburban characteristics, 2008. Source: author's analysis of HUD data, Census 2000 and ACS five-year estimates 2005–2009, an early version of the figure is presented in Covington, Freeman and Stoll (2011).
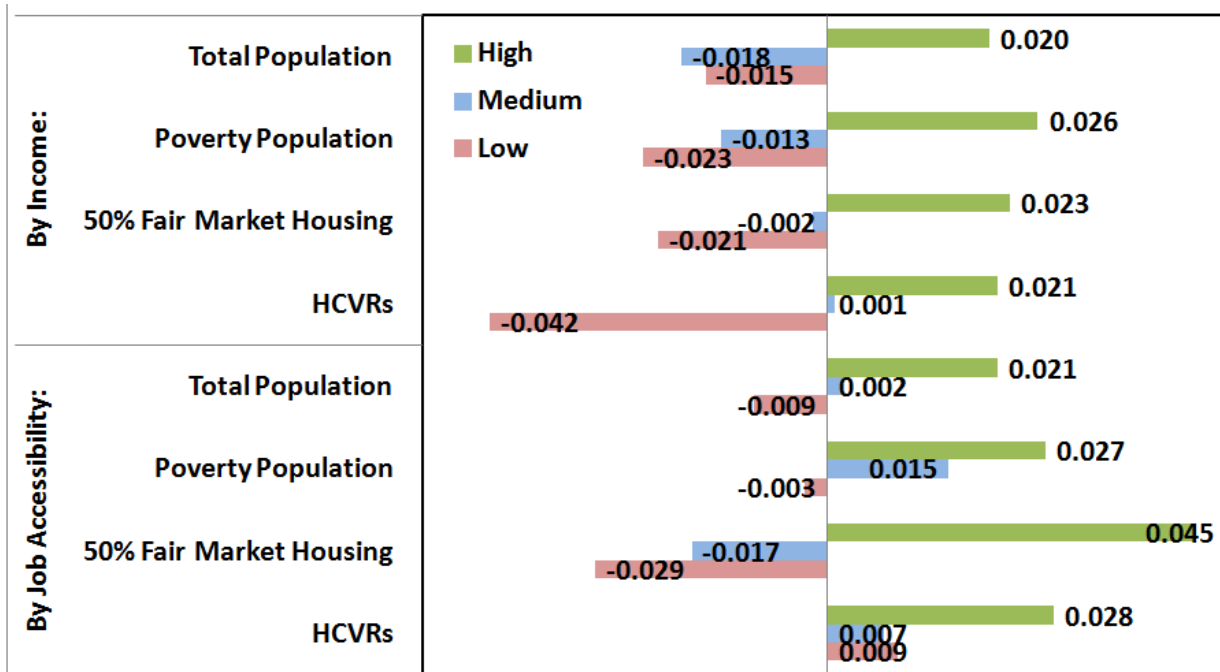
Figure 2. Change in distribution of population, poor, FMR Units and HCVRs by select suburban characteristics, 2000–2008. Source: author's analysis of HUD data, Census 2000 and ACS five-year estimates 2005–2009, an early version of the figure is presented in Covington, Freeman and Stoll (2011).
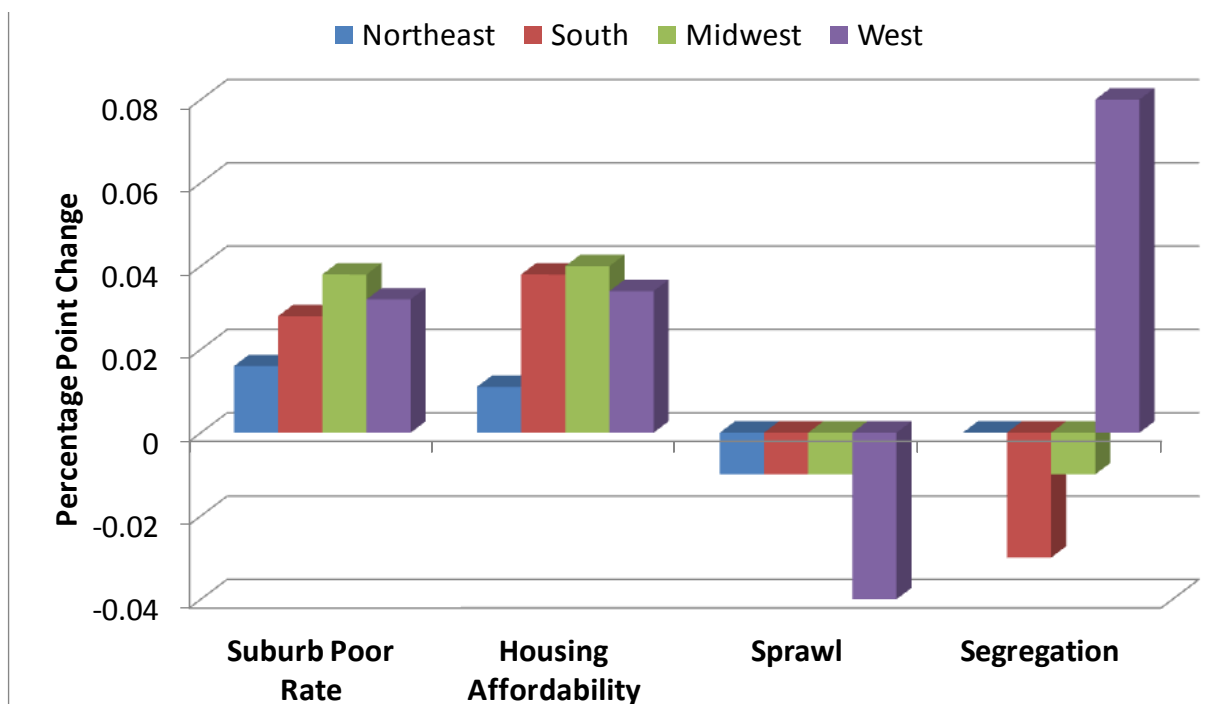
Figure 3. Regional differences in the change of key metropolitan features, 2000 to 2008. Source: author's analysis of HUD data, Census 2000 and ACS five-year estimates 2005–2009.

Further descriptive analysis show some regional differences in key variables examined in this paper. Figure 3 shows, on average, suburban share poor and housing affordability is increasing across all regions nevertheless, the northeast regions seems to be increasing at a slower pace than the other three regions. On average, job sprawl measured at the 10 mile radius has declined for all regions and most dramatically for metropolitan

areas in the West. Larger differences are observed for residential segregation. Figure 3 shows that residential segregation has declined over the decade for metropolitan areas in the South and Midwest. Larger increases in segregation have occurred in the West while, segregation in the Northeast on average stayed steady and did not show much change.

The differences in the share of the suburban poor

by type of suburb and region provide a glimpse of the factors important to the suburbanization of poverty. Nevertheless, the bivariate relationships highlighted here provide a limited view of what factors are actually associated with the growth in the suburban poor. In the next section results are presented for 1st difference regressions for suburban poor share 2000–2008.

4.3. Multivariate Analysis

Table 2 introduces a series of base multivariate change regression models important for establishing the general macro factors associated with the growth of the suburban share poor across metropolitan areas. Model 1 is the base model and Model 2 applies demographic controls. The demographic variables include % college educated used to account for relative high education of the population, % employment white males is used to account for the average robustness of the job market, and % foreign born Hispanics as one of the largest groups of immigrants in the U.S. is used to account for average changes in percent of immigrant residents within recent years. The dependent variable is the change (between 2000 and 2008) in the rate of suburban poor. Both unweighted and weighted beta coefficients are presented. Weighted results are discussed.

Model 1 shows a generally strong and stable association (0.432) between growth in share of suburban population and growth in the share of suburban poor. It is not surprising that these data suggest that the growth in suburban share poor is associated more generally with growth in the share of suburban population. These findings support dominant trends of population movement towards suburbs. The decentralization of the human population in the U.S. is a prominent feature of U.S. metropolitan areas (Lopez & Hynes, 2003; Heinlich & Anderson, 2001; Frey & Geverdt, 1998; Palen, 1995) and historically, as more affluent residence locate in the suburbs, jobs and poorer residents followed (Martin, 2001). Lessons from the place stratification model may be applicable here; the model anticipates that the rate of poor suburban settlement will lag the suburbanization of more affluent residents.

Overall, the relationships viewed in base Model 1 hold after controls are included in Model 2.

How important are changes in affordable housing to changes in suburban share poor? On average, increases in the suburban share of affordable housing is associated with a 0.228 increase in the share of suburban poor as indicated by Model 2. It appears that there is a consistent positive relationship between affordable housing and the suburban poor growth rate. Approximately one unit increase in affordable housing in suburbs on average over the study period was associated with a 0.2 percentage point increase in the poor suburban share. These results provide evidence that growth in housing affordability is very important to recent changes in the spatial distribution of the poor. It appears that affordable housing changes across suburbs are associated with a change in suburban share poor. This result will be explored more deeply within suburbs according to income in later sections.

4.3.1. Macro between Suburban Metropolitan Results

How do changes in macro level metropolitan structural features such as job sprawl (also referred to as job decentralization) and residential segregation influence the growth rate of the suburban poor? Table 3 introduces two models that help to address this question. First, as a macro metropolitan pull factor, positive changes in affordable housing are much more important than job decentralization. The decentralization of jobs ten miles outside of prominent CBDs across the metropolitan area do not appear to be significantly associated with growth in the share of suburban poor. Although 41.5 percent of jobs are 10 miles outside of the CBD on average in the largest MSAs in the nation, the growth rate declined 2 percentage points between 2000 and 2008 (see Table 1). It is quite possible that the change in job sprawl does not fluctuate enough between decades to capture a magnitude of change large enough to influence the share of poor in suburbs. In the future perhaps a twenty year period of job sprawl change would make a difference in the measurement and in the analysis.

Table 2. 1st difference multivariate regression of suburban share poor 2000–2008 (N = 100).

	Model 1		Model 2	
	β	*Weighted*	*β*	*Weighted*
Intercept	0.009**	0.022***	0.002	0.018
	(0.004)	(0.003)	(0.012)	(0.013)
Δ Suburban Rate Total Pop	0.527***	0.432***	0.541***	0.499***
	(0.130)	(0.128)	(0.136)	(0.151)
Δ Suburban Rate HCVRs	0.101***	0.004	0.083**	−0.002
	(0.037)	(0.039)	(0.040)	(0.040)
Δ Suburban Rate 50% FMR	0.207***	0.204***	0.216***	0.228***
	(0.059)	(0.063)	(0.063)	(0.065)
Demographic Variables	-	-	X	X
ADJ R²	0.307	0.196	0.290	0.196

Note: *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$

On the other hand, residential segregation across metropolitan areas serves as a push factor for the suburbanization of the poor. As suspected, pervasive residential segregation across U.S. metropolitan areas is associated with slowing the growth rate of the suburban poor. Although residential segregation between black and white residents is still relatively high the trend is downward. In 2008 average black-white segregation was 62 percent and it decreased 0.88 percentage points over the period. The segregation change regression coefficients in Table 3 indicate that on average segregation is associated with a 0.135 unit deceleration of the suburban poor rate. Hence, to the extent that residential segregation exists within metropolitan areas, the political and social dynamics that bring about segregation patterns also limit the poor's access to suburban neighborhoods. Later, I will explore if the results vary by the heterogeneity of the suburb. That is, does segregation have the same effect on all suburban neighborhoods within metropolitan area? Results of more extensive analyses of affordable housing, job decentralization and residential segregation effects are presented below.

4.3.2. Within Suburban Metropolitan Results

Descriptive statistic results from above suggest that the stratification of the suburbs may be important to differences in the spatial distribution of the suburban poor. The differences in suburban population by type of suburb presented in Figure 1 suggested that there are differences by suburb large enough to influence the slope of the relationship between the dependent and series of explanatory variables. In this section, an analysis of changes in suburban poor share by the income heterogeneity of the suburb will further describe how important factors within suburb are associated with changes in the suburban poor share. Ultimately, a comparison of results will indicate whether there are important differences by quality of the suburb such as socio economic status (income) and whether macro level results hold.

Table 4 displays first difference regression models for suburbs disaggregated by the income of the suburb. Recall that income group was designated by trecile distribution of average income for suburban tracts within each MSA. Each model represents an analysis for one of three types of suburbs, low-income, moderate-income and high-income suburbs. Therefore, the Low-Income Model displayed in Table 4 are the results of an analysis of the change in the share of poor in low-income suburbs and the independent variables represent values for low-income suburbs except for job sprawl and residential segregation, generally the computation for these variables requires an enumeration up to a unit larger than a tract (computed at the MSA

unit for this paper). In this case, I am interested in whether changes in metropolitan structural features such as job sprawl and residential segregation influence changes in the distribution of the suburban share poor in low-income suburbs, differently than moderate-income and high-income suburbs.

Table 4 shows some important differences within suburb. First, I will focus on the HCVR result. Unlike the macro models in Table 2 and Table 3, the weighted results of HCVRs reveal a positive significant relationship across each suburb income group. Generally, changes in the rate of HCVRs in low, moderate and high-income suburbs have a corresponding positive association to changes in the suburban poor share, 0.105, 0.154 and 0.083 respectively. The heterogeneity of suburb seems to matter for the association of HCVR and suburban poor share. It may matter because there are very pronounced differences in HCVRs absorption into suburban neighborhood primarily because of selection. To start, generally HCVRs are even more disadvantaged than the poor and only about 14.2 percent reside in high-income suburbs of which a disproportionate share are white HCVRs (Covington, Freeman, & Stoll, 2011). These differences seem to signal qualitative differences in the HCVR population and the places they reside. On average, the significant positive results reveal that suburban changes in HCVRs move with suburban changes in the poor share, potentially supporting the idea that other poor groups perhaps through available networks to information about housing and other opportunities likely attract other poor residents (Goering, et. al., 1999).

Within suburb effects displayed in Table 4 show that the heterogeneity of the suburb is a necessary distinction when observing the association between changes in affordable housing and changes in the poor share. The Moderate-Income Model reveals the only significant positive relationship among the suburb groups. There is an associated 0.215 change in the share poor in moderate-income suburbs with an accompanied one unit change in affordable housing in moderate-income suburbs. Why only moderate-income suburbs? As shown in Figure 1, approximately 36 percent of affordable housing is located in middle-income suburbs and this share is steady over the decade while low-income suburbs have experienced the largest declines over the period. Housing affordability at least over this period seem to be more steady and perhaps various efforts to extend affordable housing in these neighborhoods such as mixed-income and transit oriented development that utilize programs such as the Low Income Housing Tax Credit (LIHTC) and efforts focused on affordable senior housing may contribute substantially to the dynamic. Also, middle-income neighborhoods may be experiencing an introduction of housing filtering as these neighborhoods are aging as well.

Table 3. 1st difference multivariate regression of suburban share poor, 2000–2008 (N = 100).

	Job Decentralization		Residential Segregation	
	β	Weighted	β	Weighted
Intercept	0.004	0.023*	0.004	0.019
	(0.013)	(0.014)	(0.012)	(0.014)
Δ Suburban Rate Total Pop	0.528***	0.492***	0.559***	0.524***
	(0.138)	(0.153)	(0.135)	(0.149)
Δ Suburban Rate HCVRs	0.092**	0.001	0.083**	0.005
	(0.041)	(0.041)	(0.041)	(0.040)
Δ Suburban Rate 50% FMR	0.233***	0.230***	0.229***	0.220***
	(.065)	(0.067)	(0.064)	(0.065)
Δ Job Sprawl 10	0.017	0.087	0.016	0.087
	(0.079)	(0.087)	(0.078)	(0.085)
Δ Black-White Segregation		-	−0.095**	−0.135**
			(0.043)	(0.054)
Demographic Variables	X	X	X	X
ADJ R²	0.294	0.203	0.325	0.250

Notes: *p < 0.10, **p < 0.05, ***p < 0.01. Demograhic variable % foreign born Hispanics ($β = −0.002$ in final model p < 0.05)

Table 4. 1st difference multivariate regression of suburban share poor (by income of suburb), 2000–2008 (N = 100).

	Low-Income		Moderate-Income		High-Income	
	β	weighted	β	weighted	β	weighted
Intercept	−0.024*	−0.016	0.015	0.006	0.032***	0.023***
	(0.014)	(0.012)	(0.014)	(0.013)	(0.010)	(0.008)
Δ Suburb Total Pop Rate	1.295***	1.314***	0.788***	0.617***	0.678***	0.712***
(applied within income group)	(0.100)	(0.111)	(0.105)	(0.102)	(0.066)	(0.061)
Δ Suburb HCVRs Rate	0.075**	0.105***	0.099***	0.154***	0.096**	0.083**
(applied within income group)	(0.035)	(0.032)	(0.034)	(0.037)	(0.038)	(0.038)
Δ Suburb 50% FMR	0.003	−0.003	0.164**	0.215***	0.019	0.036
(applied within income group)	(0.060)	(0.065)	(0.069)	(0.075)	(0.056)	(0.059)
Δ Job Sprawl	−0.184**	−0.213**	0.040	−0.019	0.149**	0.096
	(0.089)	(0.085)	(0.095)	(0.091)	(0.066)	(0.060)
Δ Black-White Segregation	0.099*	0.106*	−0.009	0.001	−0.075*	−0.061
	(0.052)	(0.057)	(0.053)	(0.058)	(0.039)	(0.040)
Demographic Variables	X	X	X	X	X	X
ADJ R²	0.764	0.831	0.636	0.633	0.778	0.853

Notes: *p < 0.10, **p < 0.05, ***p < 0.01; High-Income Model Demograhic variable % foreign born Hispanics ($β = −0.001, p < 0.05$) and % college educated ($β = −0.004, p < 0.05$)

Given the 2.3 percentage point increase in affordable housing in high-income suburbs, there was a greater expectation of a significant relationship between changes in affordable housing and suburban share poor changes. A rationale for this finding is that although there has been some growth in affordable housing in high-income suburbs, the overall supply at 17 percent of all affordable housing in the suburbs has not reached a critical amount that would specifically attract more poor residents.

How important are labor demand pulls on changes in the share of suburban poor? The macro level results indicate that the decentralization of jobs at the 3.5 (results not shown for these measures) and finally at the 10 miles radius outside of the CBD was not statistically significant. Up to this point, in the within suburb results presented in Table 4, there has not been great evidence that the suburbanization of poverty in any case is associated with changing labor demand toward the urban fringe. Results reveal that changes in job demand toward the urban fringe as measured by the degree to which jobs are decentralizing is associated with a slowing of the poor share in low-income suburbs over the period and an acceleration of the poor share in high-income suburbs (this result only significant in the unweighted result). That is, it does not appear that the poor are on average, following jobs to low-income suburbs but they appear to follow jobs to high-income suburbs. Others have found specific labor demand effects which suggest that White and Asian poor tend to live in suburbs at a higher rate when there are more suburban jobs available but a general population effect has not been observed (Howell & Timberlake, 2014).

From the macro level results, it appears that residential segregation on average works to slow the share poor suburbanizing. Nevertheless, within suburb results reveal that while residential segregation levels may serve to slow suburbanization of the poor in high-

income suburbs (significant for the unweighted result only) over the study period, segregation is actually associated with increases in the growth of the poor share in low-income suburbs (see Table 4). These results seem to suggest that while residential segregation seems to serve as a barrier for the entrance of the poor in high-income neighborhoods, it seems to serve as a welcome to the poor in low-income suburbs. Residential segregation embodies a complicated set of features within the metropolitan structure. As indicated earlier, various suburban neighborhoods have persistently applied measures such as exclusionary zoning to "preserve the character" of the neighborhood and, in part, the results presented here may reflect the likelihood that higher-income suburbs are still engaging in these practices.

To explore further the relationship between poverty suburbanization and residential segregation, all 100 metropolitan areas are examined to locate the 25 slowest and fastest poverty suburbanizing areas along with the largest increases and declines in segregation from 2000 to 2008. If there were no systematic relationships between these measures, one would expect 6.25 metropolitan areas to overlap in these indices. The equation used is as follows, $((100/25) \times (100/25)) \times 100 = 0.0625 \times 100 = 6.25$. Table 5 shows instead, that 12 out of the 25 areas with the slowest poverty suburbanization are also the areas with the highest increases in residential segregation. On the other end of the distribution, 12 of the 25 metro areas with the fastest poverty suburbanization are also the areas with the lowest increases in residential segregation. The observed relationship does not appear to be random. These results support multivariate findings showing a negative association between poverty suburbanization and residential segregation.

Table 5. Metropolitan areas with the slowest and fastest poverty suburbanization and highest increases and declines in residential segregation, 2000–2008.

		Suburban Poor Rate	Segregation	Change in Suburban Poor Rate	Change in Segregation
Slowest Poverty Suburbanization and Highest Segregation Increases					
1	Allentown-Bethlehem-Easton, PA-NJ	65.4	54.0	−3.1	1.0
2	Springfield, MA Metro Area	61.8	66.7	−2.6	3.0
3	El Paso, TX	17.8	37.3	−1.2	1.0
4	McAllen-Edinburg-Mission, TX	86.5	62.6	−1.1	13.0
5	Albuquerque, NM	40.0	43.2	−0.9	11.0
6	Albany-Schenectady-Troy, NY	74.0	63.7	−0.2	3.0
7	Scranton-Wilkes-Barre, PA	81.6	60.2	−0.1	5.0
8	San Jose-Sunnyvale-Santa Clara, CA	28.8	45.2	0.1	5.0
9	Bakersfield, CA	66.9	54.7	0.3	2.0
10	San Antonio, TX	23.3	51.2	0.6	1.0
11	Los Angeles-Long Beach-Santa Ana, CA	51.2	69.9	1.0	2.0
12	Madison, WI	33.4	51.6	1.1	5.0
Fastest Poverty Suburbanization and Highest Segregation Declines					
1	New Orleans-Metairie-Kenner, LA	58.6	63.5	13.9	−6.0
2	Chicago-Naperville-Joliet, IL-IN-WI	46.4	78.1	7.4	−3.0
3	Richmond, VA	65.5	53.2	5.9	−4.0
4	Las Vegas-Paradise, NV	67.8	38.8	5.6	−5.0
5	Stockton, CA	45.9	50.9	5.5	−4.0
6	Lakeland-Winter Haven, FL	82.6	41.4	5.1	−14.0
7	Little Rock-North Little Rock-Conway, AR	69.6	58.4	4.9	−3.0
8	Houston-Sugar Land-Baytown, TX	48.3	61.2	4.9	−6.0
9	Cincinnati-Middletown, OH-KY-IN	67.5	70.3	4.8	−5.0
10	Kansas City, MO-KS	48.6	65.8	4.7	−3.0
11	New Haven-Milford, CT	68.3	65.5	4.7	−3.0
12	Akron, OH	48.7	62.6	4.6	−3.0

Source: author's analysis of HUD data, Census 2000 and ACS five-year estimates 2005–2009.

4. Conclusions

In this article factors associated with the suburbanization of poverty were examined. The analysis sought to address the overarching question: what metropolitan factors are associated with the suburbanization of the poor? In this paper, I looked to classic urban theories to explore the suburbanization of poverty within an urban change framework. The 2008 suburban poor share measures show uneven distribution of the poor across suburbs in the largest metropolitan areas in the U.S. However, increases in the poor share in suburbs indicate that suburbs once off limit to the poor are opening up, even in high-income suburbs. Several themes surface from a summary of results presented in this paper. First, broader population trends overwhelmingly help to explain growth in suburban poverty. Second, the heterogeneity of the suburb is crucial to understanding the suburbanization of poverty. Broadly, changes in housing affordability appear to be very important to changes in the spatial distribution of the poor and job decentralization has a more narrow effect (it works to pull and push the poor in specific circumstances). Generally, residential segregation acts as a barrier to the suburbanization of poverty. Each of these points is discussed in detail below.

The suburbanization of the poor appears to be connected to broader population decentralization trends. A dominant share of the metropolitan poor now residing in suburban locations is related to general population shifts to the suburbs. These trends are indicative of broader growth patterns in the U.S. "In the U.S., urban areas are growing and urban land area is expanding faster than urban population size, leading to a decline in average urban population density" (Marshall, 2007). Undoubtedly, the sifting and sorting of people across the metropolitan landscape is reflective of broader development patterns occurring in the metropolitan region. Various scholars have documented the process and consequences of sprawling development in detail (Jackson, 1985; Kneebone & Berube, 2013). In general, where population growth is occurring is an important concern because of infrastructure requirements, environmental impacts, and demands placed on transportation systems to list a few. A related concern about the dominant share of the poor now residing in suburbs is their need for particular services. Transportation, social services, workforce development, and housing assistance services are important to encouraging and supporting the self sufficiency aspirations of families overall. The links between overall population shifts and shifts in the spatial distribution of the poor population requires further analysis to understand how to plan better for the growth patterns for the general population and the poor alike. It is also important to explore differences in the growth patterns based on the characteristics of suburban communities.

The heterogeneity of the suburbs is important towards understanding changes in the suburbanization of poverty. Within suburb effects displayed in Table 4 and Figure 4 show that the heterogeneity of the suburb is a necessary distinction when observing the association between changes in housing affordability, HCVRs, job decentralization, and residential segregation on changes in the suburban poor share. Unlike macro models presented in Table 3, changes in the spatial distribution of HCVRs as a poor subgroup in low, moderate, and high-income suburbs is associated differently with the spatial distribution of the poor in those suburbs. It appears that the greatest link between changes in the spatial distribution of HCVRS and the poor is in moderate-income suburbs, whereas these links are significant but weaker in high-income suburbs.

Equally interesting are the within suburb effects of housing affordability and the poor by the income of the suburb. The macro models displayed in Table 2 and 3 revealed a consistent significant relationship between housing affordability and the share of poor in suburbs. The macro models indicate an overall importance of changes in housing affordability and the spatial distribution of the poor. Results of the within suburb model extend the understanding of this relationship; changes in housing affordability in moderate-income suburbs in particular are linked to the spatial distribution of the poor in moderate-income suburbs. The relationship does not seem to be as important in low-income and high-income suburbs (see Table 4) suggesting that changes in housing affordability within middle-income suburbs may drive the observed relationship overall.

The paper sought to address the question: are jobs or housing more important to the suburbanization of the poor? Metropolitan wide changes in suburban housing affordability over the study period appear to more broadly affect the spatial distribution of the poor than job decentralization (see Table 3). The literature along with the current analysis indicates that growth rates in housing affordability are essential to poverty suburbanization. However, consideration of the heterogeneity present across suburbs in the largest metropolitan areas shows that albeit, no obvious connection in the macro model of job decentralization, there are important within suburb effects that demonstrate an existing relationship (see Table 4 and Figure 4). There is a countervailing relationship wherein job sprawl performs as a push factor in low-income neighborhoods and as expected may perform as a pull factor in high-income suburbs (this finding is only significant in the unweighted result). This finding supports the literature; various scholars have shown that the poor in particular follow jobs to shrink distance to job rich clusters on the urban fringe (see Covington (2009) for an extensive discussion).
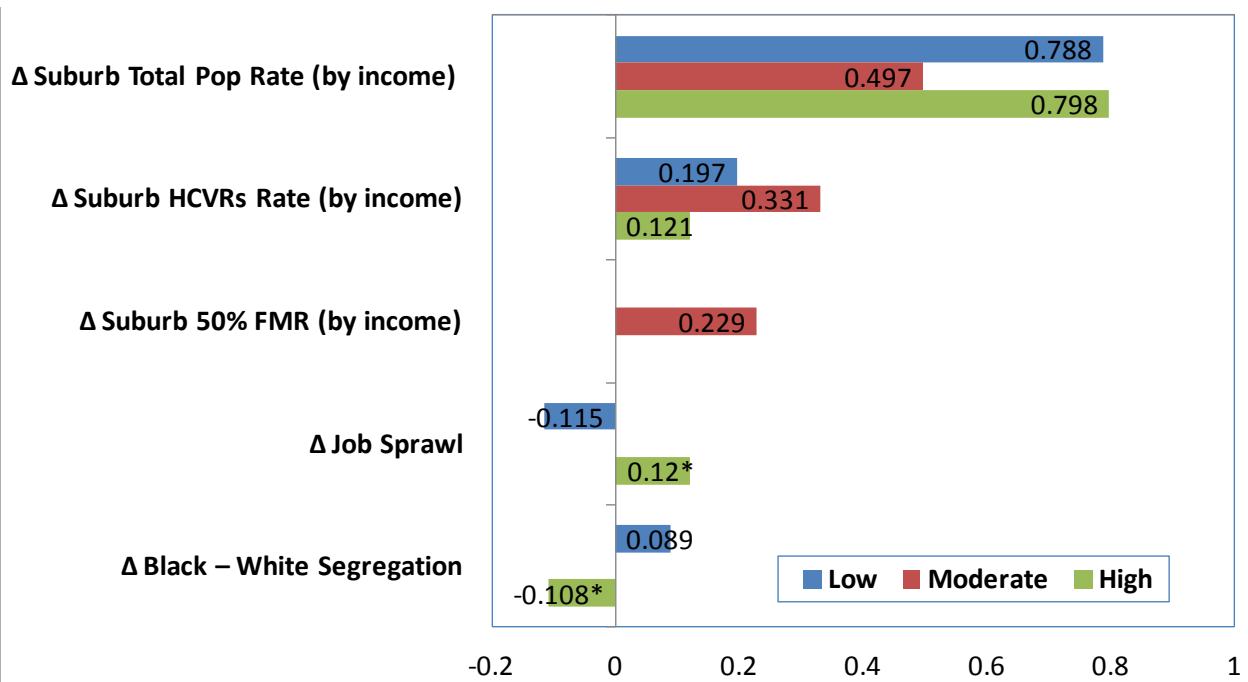
Figure 4. Key features within suburbs associated with poverty suburbanization, 2000–2008. Source: author's analysis of HUD data, Census 2000 and ACS five-year estimates 2005–2009. Significant Standardized coefficients (not displayed in tables above) are presented for the weighted change regressions. * Unweighted results.

Clearly, affordable housing opens up access to neighborhoods, and lack thereof, render suburban migration by the poor a less likely process. Despite the best efforts, there are strong views against affordable housing. There are many cases where affluent residents have vehemently fought the siting of affordable housing in upscale suburban neighborhoods (e.g., Mt. Laurel, NJ). Henri Lefevbre documented the role of real estate investments in the organization of metropolitan areas. The pattern of real estate development has the ability to shape neighborhoods, cities, suburbs and metropolitan areas. Often more lucrative real estate development projects which promise greater returns on investments are sought and more widely supported than affordable housing projects, especially in suburban communities. Local efforts to more equitably incorporate affordable housing options into local housing supply play a critical role in opening up suburbs, particularly in extending the poor's access to high-amenity suburbs.

Overall, findings show that the poor's inroads to high-amenity suburbs, including moderate and high-income suburbs, are associated with overall population growth, HCVRs, affordable housing and perhaps job sprawl and residential segregation (as displayed in Figure 4). Understanding those factors associated with suburban poor increases across neighborhood is essential to the reallocation of resources to neighborhoods most affected. Changes in the spatial distribution of the poor are associated strongly to changes in housing affordability in the suburbs. Perhaps this is related to growing rent pressures in expensive metropolitan housing markets (Glaeser, Kolko, et al., 2001, p. 4; U.S.

Census, 2003) which may be forcing low-income households in core urban locations to seek lower rent districts in the suburbs. This has great implications particularly for housing authorities within large metropolitan areas. As a result, it is important for housing authorities to reconsider how these changes might prompt administrators to realign services and resources.

Generally, residential segregation acts as a barrier to the suburbanization of poverty. Despite significant increases in poverty suburbanization, residential segregation, in part, a byproduct of real estate development decisions, information asymmetry, preferences, and racial discrimination appear to slow poverty suburbanization. The lesson remains that there are powerful forces including political, economic and social that aid particular individuals, and organizations in shaping the urban landscape in ways that continue to work in their favor. Despite, recent increases in suburban share poor in high-amenity suburbs, residential segregation in high-income suburbs appears to be a push factor which may slow additional poor from suburbanizing within higher-amenity suburbs. Other evidence shows some selection of the poor entering high-amenity suburbs, both findings from Howell and Timberlake (2014) and from Covington, Freeman and Stoll (2011) showed that White poor families and White HCVRs more disproportionately represent the share of the poor in high-income suburbs. These findings perhaps are revealing that longstanding barriers associated with the exclusionary practices of the poor more generally and to minority households in particular may remain. In alignment with Henri Lefevbre, the distinction between

effects in low versus high-income suburbs is potentially the protection of capital. As with the efforts of NAREB in the 1920s, there remain interests to keep high-amenity neighborhoods relatively homogenous.

As a final point, it would appear that the same barriers that exist in high-amenity suburbs do not exist in low-amenity suburbs. Residential segregation in low-income suburbs appears to act as a pull factor for the poor. The swell of suburban poor is undeniable. Many of the challenges associated with central city poverty (e.g., an eroding tax base, poor performing schools) will now be suburban challenges too; take for example the recent administrative reaction to citizenry enraged by a police shooting and murder in Ferguson. Ferguson is a low-income suburb that over the last three decades increased substantially the share of poor that reside in the community (Kneebone, 2014). Ferguson is struggling with changing social dynamics and other neighborhoods that have changed as dramatically are likely confronting similar challenges. Whether or not suburban jurisdictions will fare better than central cities in handling their poorer populations is an important question deserving of further research.

Conflict of Interests

The author declares no conflict of interest.

References

Alonso, W. (1964). *Location and Land Use: Toward a general theory of land rent.* Cambridge University Press.

Baer, W. C., & Williamson, C. B. (1988). The filtering of households and housing units. *Journal of Planning Literature*, *3*(2), 127-152.

Barron, B., & Barron, E. (1965). *The Inhumanity of Urban Renewal*. Arlington, VA: Crestwood Books.

Berube, A., & Kneebone, E. (2006). *Two Steps Back: City and Suburban Poverty Trends 1999–2005*. Washington, DC: Brookings Institution.

Bocian, D. G., Smith, P., Green, G., & Leonard, P. (2010). *Dreams Deferred: Impacts and Characteristics of the California Foreclosure Crisis*. Durham, NC: Center for Responsible Lending.

Bravve, E., Bolton, M., Couch, L., & Crowley, S. (2012). *Out of Reach 2012*. Washington, D.C: The National Low Income Housing Coalition.

Bullard, R., Johnson, G., & Torres, A. (2000). *Sprawl city: Race, politics and planning in Atlanta*. Island Press.

Burgess, E. W. (1925). The growth of the city: An introduction to a research project. *American Sociological Society*, *18*, 85-97.

Cherry, R. D., & Rodgers, W. M. (Eds.) (2000). *Prosperity for All? The Economic Boom and African Americans*. New York: Russell Sage Foundation.

Chudacoff, H. P., Smith, J.E., & Baldwin, P. C. (2010). *The Evolution of American Society* (7th ed.). Upper Saddle River, NJ: Pearson.

Cochran, C. L., & Malone, E. F. (2010). *Public Policy Perspectives and Choices* (4th ed.). Boulder, CO: Rienner Publishers, Inc.

Covington, K. L. (2009). Spatial mismatch of the poor: An explanation of recent declines in job isolation. *Journal of Urban Affairs*, *31*(5), 559-587.

Covington, K., Freeman, L., & Stoll, M. (2011). *The Suburbanization of Housing Choice Voucher Recipients*. Washington, DC: Brookings Institution.

de Souza Briggs, X. (1998). Brown kids in white suburbs: Housing mobility and the many faces of social capital. *Housing policy debate*, *9*(1), 177-221.

Department of Housing and Urban Development (HUD). (2011). *Worst Case Housing Needs 2009: A Report to Congress.* Washington, DC.

Department of Housing and Urban Development (HUD). (2013). *FY 2013 Fair Market Rent Documentation System*. Washington, DC. Retrieved from http://www.huduser.org/portal/datasets/fmr/fmrs/fy2013_code/2013summary.odn?INPUTNAME=METRO31100MM4480*Los+Angeles+County%2B0603799999&data=2013&year=2013&fmrtype=%24fmrtype%24&incpath=C:%5CHUDUSER%5CwwwMain%5Cdatasets%5Cfmr%5Cfmrs%5CFY2013_Code&selection_type=county&path=%24path%24&stname=California

Department of Housing and Urban Development (HUD). (2014). *Neighborhood Stabilization Grant Program*. Washington, DC. Retrieved from http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs/neighborhoodspg

Farley, R., & Frey, W. H. (1994). Changes in the segregation of whites from blacks during the 1980s: Small steps toward a more integrated society. *American Sociological Review*, *59*(1), 23-45.

Freeman, R. B. (2001). *The Rising Tide Lifts…?* (No.

w8155). Cambridge, MA: National Bureau of Economic Research.

Frey, W. H., & Geverdt, D. (1998). *Changing Suburban Demographics, Beyond the "Black-While, City-Suburb" Typology* (Report No, 98-422). Michigan: Population Studies Centre, University of Michigan.

Frey, W., Berube, A., Singer, A., & Wilson, J. (2009). *Getting Current: Recent Trends in Metropolitan America*. Washington, DC: Brookings Institution.

Giuliano, G. (1989), Research policy and review 27. New directions for understanding transportation and land use. *Environment and Planning A, 21*(2), 145-159.

Glaeser, E. L., & Kahn, M. E. (2001). *Decentralized Employment and the Transformation of the American City* (No. w8117). Washington, DC: National Bureau of Economic Research.

Glaeser, E. L., & Vigdor, J. L. (2001). *Racial Segregation in the Census 2000: Promising News*. Washington, DC: Brookings Institution, Center on Urban & Metropolitan Policy.

Glaeser, E. L., Kahn, M. E., & Chu, C. (2001). *Job Sprawl: Employment Location in US Metropolitan Areas*. Washington, DC: Brookings Institution, Center on Urban and Metropolitan Policy.

Glaeser, E. L. (2008). *Cities, Agglomeration and Spatial Equilibrium*. New York: Oxford University Press.

Glaeser, E. L., Kolko, J., & Saiz, A. (2001). Consumer city. *Journal of Economic Geography*, *1*(1), 27-50.

Goering, J. M., Kraft, J., Feins, J., McInnis, D., Holin, M. J., & Elhassan, H. (1999). *Moving to Opportunity for Fair Housing Demonstration Program: Current Status and Initial Findings* (Accession #8771). Washington, D.C.: HUDUSER.

Gotham, K. F. (2000). Urban space, restrictive covenants and the origins of racial residential segregation in a US city, 1900–50. *International Journal of Urban and Regional Research*, *24*(3), 616-633.

Gotham, K. F. (2002). *Race, Real Estate, and Uneven Development: The Kansas City Experience, 1900–2000*. New York, NY: SUNY Press.

Hanlon, B., Short, J. R., & Vicino, T. (2010). *Cities and Suburbs. New Metropolitan Realities in the U.S.* New York, NY: Routledge.

Haughey, R. M. (2001). *Urban Infill Housing: Myth and Fact*. Washington, DC: Urban Land Institute.

Heinlich, R., & Anderson, W. (2001). *Development at the Urban Fringe and Beyond: Impacts on Agriculture and Rural Land*. ERS Agriculture Economics (Report no. 803). Washington, DC: U.S. Department of Agriculture.

Helper, R. (1969). *Racial Policies and Practices of Real Estate Brokers.* Minneapolis, MN: University of Minnesota Press.

Hines Jr, J. R., Hoynes, H. W., & Krueger, A. B. (2001). *Another Look at whether a Rising Tide Lifts All Boats* (No. w8412). Washington, DC: National Bureau of Economic Research.

Holzer, H. J., Raphael, S., & Stoll, M. A. (2006). Employ-

ers in the boom: How did the hiring of less-skilled workers change during the 1990s? *The Review of Economics and Statistics*, *88*(2), 283-299.

Howell, A. J., & Timberlake, J. M. (2014). Racial and ethnic trends in the suburbanization of poverty in US metropolitan areas, 1980–2010. *Journal of Urban Affairs*, *36*(1), 79-98.

Immergluck, D. (2012). Distressed and dumped: Market dynamics of low-value, foreclosed properties during the advent of the federal neighborhood stabilization program. *Journal of Planning Education and Research*, 32(1), 48-61.

Jackson, K. T. (1985). *Crabgrass Frontier: The Suburbanization of the United States*. London, England: Oxford University Press.

Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York City: Random House.

Jargowsky, P. (2003). *Stunning Progress, Hidden Problems*. Washington, DC: Brookings Institution.

Kennedy, M., & Leonard, P. (2001). *Dealing with Neighborhood Change: A Primer on Gentrification and Policy Choices*. Washington, DC: The Brookings Institution.

Kneebone, E. (2009). *Job Sprawl Revisited: The Changing Geography of Metropolitan Employment.* Washington, DC: Brookings Institution, Metropolitan Policy Program.

Kneebone, E. (2014). *Ferguson, Mo. Emblematic of Growing Suburban Poverty. The Avenue: Rethinking Metropolitan America* (August 15, 2014). Washington, D.C.: Brookings Institution.

Kneebone, E., & Berube, A. (2013). *Confronting Suburban Poverty in America*. Washington, DC: Brookings Institution Press.

Kneebone, E., & Garr, E. (2010). *The suburbanization of poverty: Trends in metropolitan America, 2000 to 2008.* Metropolitan Policy Program. Washington, DC: Brookings Institution.

Krueger, A. B., & Solow, R. M. (Eds.). (2001). *The Roaring Nineties: Can Full Employment be Sustained?* New York, NY: Russell Sage Foundation.

Lee, S., & Leigh, N. G. (2007). Intrametropolitan spatial differentiation and decline of inner-ring suburbs: A comparison of four U.S. metropolitan areas. *Journal of Planning Education and Research*, *27*(2), 146–164.

Lee-Chuvala, C. (2012). *Upward Mobility? Classifying Suburban Poverty*. APPAM Fall Research Conference. Baltimore, MD.

Lefebvre, H. (1994). *The Production of Space.* Malden, MA: Blackwell Publishers.

Levy, J. M. (2013). *Contemporary Urban Planning*. Upper Saddle River, NJ: Pearson/Prentice Hall.

Lopez, R., & Hynes, H. P. (2003). Sprawl in the 1990s: Measurement, distribution, and trends. *Urban Affairs Review*, *38*(3), 325-355.

Lowry, I. S. (1960). Filtering and housing standards: A conceptual analysis. *Land Economics*, 362-370.

Lucy, W. H., & Phillips, D. L. (2000). *Confronting Suburban Decline: Strategic Planning for Metropolitan renewal*. Washington, D.C.: Island Press.

Marshall, J. D. (2007). Urban land area and population growth: A new scaling relationship for metropolitan expansion. *Urban Studies*, *44*(10), 1889-1904.

Martin, R. W. (2001). The adjustment of black residents to metropolitan employment shifts: How persistent is spatial mismatch? *Journal of Urban Economics*, *50*(1), 52-76.

Massey, D. S., & Denton, N. A. (1993). *American Apartheid: Segregation and the Making of the Underclass*. Cambridge, MA: Harvard University Press.

Macionis, J. J., & Parrillo, V. N. (2013). *Cities and Urban Life* (6th ed.). Upper Saddle River, NJ: Pearson.

McGirr, L. (2012). The new suburban poverty. *New York Times*. Retrieved from http://campaignstops.blogs.nytimes.com/2012/03/19/the-new-suburban-poverty/?_php=true&_type=blogs&_r=0

Mikelbank, B. A. A. (2004). Typology of U.S. suburban places. *Housing Policy Debate*, *15*(4), 935-964.

Mink, G., & O'Connor, A. (Eds.). (2004). *Poverty in the United States: An Encyclopedia of History, Politics, and Policy* (Vol. 2). Santa Barbara, CA: Abc-Clio.

Mishel, L., Bivens, J., Gould, E., & Shierholz, H. (2002). *The State of Working America*. Ithaca, NY: Cornell University Press.

Palen, J. J. (1995). *The Suburbs*. New York: McGraw-Hill.

Partridge, M. D., & Rickman, D. S. (2008). Does a rising tide lift all metropolitan boats? Assessing poverty dynamics by metropolitan size and county type. *Growth and Change*, *39*(2), 283-312.

Pattillo, M. (2005). Black middle-class neighborhoods. *Annual Review of Sociology*, *31*, 305-329.

Pfeiffer, D. (2012). African Americans' search for "more for less" and "peace of mind" on the exurban frontier. *Urban Geography*, *33*(1), 64-90.

Pogodzinski, J. M. (1991). The effects of fiscal and exclusionary zoning in household location: A critical review. *Journal of Housing Research*, *2*(2), 145-160.

Puentes, R., & Orfield, M. (2002). *Valuing America's First Suburbs: A Policy Agenda for Older Suburbs in the Midwest.* Metropolitan Policy Program Report. Washington, DC: Brookings Institution.

Puentes, R., & Warren, D. (2006). *One-fifth of America: A Comprehensive Guide to America's First Suburbs.* Metropolitan Policy Program. Washington, DC: The Brookings Institution

Raphael, S., & Stoll, M. A. (2002). *Modest Progress: The Narrowing Spatial Mismatch between Blacks and Jobs in the 1990s.* Washington, DC: The Brookings Institution.

Raphael, S., & Stoll, M. A. (2010). *Job Sprawl and the Suburbanization of Poverty*. Metropolitan Policy Program. Washington, DC: The Brookings Institution.

Roback, J. (1982). Wages, rents, and the quality of life. *Journal of Political Economy*, *90*(6), 1257-1278.

Schildt, C., Cytron, N., Kneebone, E., & Reid, C. (2013). *The Subprime Crisis in Suburbia: Exploring the Links between Foreclosures and Suburban Poverty*. San Francisco, CA: Federal Reserve Bank of San Francisco.

Schwartz, A. F. (2013). *Housing Policy in the United States*. London: Routledge.

Smetanka, M. J. (2011). Foreclosure scourge hitting the suburbs. *Star Tribune*. Retrieved from http://www.startribune.com/local/south/16881311.html

Sohmer, R. R., & Lang, R. E. (2001). *Downtown Rebound*. Washington, DC: FannieMae Foundation and The Brookings Institution.

South, S. J., & Crowder, K. D. (1997). Residential mobility between cities and suburbs: Race, suburbanization, and back-to-the-city moves. *Demography*, *34*(4), 525-538.

Stoll, M. A. (2006). Job sprawl, spatial mismatch, and black employment disadvantage. *Journal of Policy Analysis and Management*, *25*(4), 827-854.

U.S. Census (2003). *Housing Cost of Renters: 2000.* C2KBR-21, Census Brief. Washington, DC: U.S. Census Bureau.

U.S. Commission on Civil Rights. (1973). *Understanding fair housing* (Clearinghouse Publication 42, February 1973). Washington, DC. U.S. Commission on Civil Rights. Retrieved from http://www.law.umaryland.edu/marshall/usccr/documents/cr11042.pdf

Wilson, W.J. (1987). *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago, IL: University of Chicago Press.

WoTapka, D. (2010). Housing bust opens new doors for subsidized tenants. *Wall Street Journal*. Retrieved from http://sweetness-light.com/archive/foreclosures-mean-luxury-section-8-houses

About the Author

Dr. Kenya L. Covington
Kenya L. Covington, Ph.D. conducts empirical research that examines causes of social and economic inequality associated with the structural makeup of metropolitan areas. Often her work suggests ways to better utilize social and urban policies that can mitigate disparities in economic opportunity and well-being overall. She is a graduate of the University of Maryland, M.C.P. from College Park and Ph.D. from UMBC. Over her career, Dr. Covington's articles have appeared in *the Journal of Urban Studies*, *Brookings Institution Policy Briefs*, *Journal of Urban Affairs*, and many others.

COGITATIO