THE BUILT ENVIRONMENT IN CONTEMPORARY OLD HAVANA: BUILDING SYSTEMS IN A HISTORIC DISTRICT

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Abstract

This dissertation examines recent dynamics behind the production of the built environment in Old Havana following the Cold War. Four articles illustrate how distinct dynamics to production of the built environment emerged during a period of the Cuban State's political and economic weakness and subsequent periods of greater strength. During the period of shock, which was associated with the collapse of the Soviet Bloc, community/grassroots-based solutions to daily problems emerged across the island. Subsequently, throughout the 1990s, a stronger Cuban State, backed up by new partners in Latin America, gradually reactivated top-down approaches to policy. One initiative, the Community Architect Program, reflects the evolution of Cuban politics in the early 1990s. The Program started as an initiative outside of the State to assist households with residential modifications and was then incorporated into government structures. The State's appropriation of the Community Architect Program embodies the shift in policy towards top-down approaches. State support for the rehabilitation of Old Havana and its transformation into a hub for international tourism and consumption similarly fits into this new balance of State-community relations.

My study illustrates how three different 'building systems' have emerged in the production of the urban environment of Old Havana. I look at the implications that each of these systems hold for the configuration of the built environment and residents' social lives, personal satisfaction, well-being and quality of life. Two of these 'systems' – one top-down, the other bottom-up – are familiar to urban planners, architects and urban developers, although they have taken distinctive shape in the contexts of Old Havana and Cuba. I argue that a third 'hybrid building system' has emerged in Cuba by combining and borrowing elements from both the top-down and the bottom-up. I argue that this hybrid system is characterized by the following

elements: the way in which decisions about design are made; a distinctive form of organizing, contracting or providing labor; the employment of different building technologies and materials; the way in which projects are financed; and the degrees to which projects comply with urban regulations. I argue that the 'hybrid' approach has the potential to empower residents and satisfy the needs of large-scale master visions for redevelopment in equal measure.

Résumé

Cette dissertation examine les dynamiques récentes derrière la production de l'environnement construit dans la Vielle Havane suite à la Guerre Froide. Quatre articles illustrent la façon dont des dynamiques distinctes de la production de l'environnement construit surgissent durant une période de faiblesse politique et économique de l'État cubain et durant des périodes plus fortes subséquentes. Pendant la période bouleversante associée à l'effondrement du Bloc de l'Est, de simples solutions ont émergé de la communauté à travers l'île. Par la suite, au cours des années 1990, un État cubain, plus fort et appuyé par des nouveaux pays alliés d'Amérique latine, a graduellement réactivé son approche descendante face à ses politiques. Le programme d'architecture communautaire est une initiative qui reflète l'évolution des politiques cubaines du début des années 1990. Le programme a démarré comme une initiative non gouvernementale afin d'aider les habitants avec des modifications résidentielles avant d'être intégré par la suite dans la politique d'État. L'appropriation du programme d'architecture communautaire par l'État représente le changement de politique vers des approches descendantes. L'appui de l'État envers la rénovation de la Vielle Havane et sa transformation vers un *hub* pour le tourisme international et la consommation encadre cette nouvelle balance entre l'État et la communauté.

Ma recherche illustre comment trois systèmes de construction différents ont émergé dans la production de l'environnement urbain de la Vielle Havane. Je m'axe principalement sur l'implication que chacun de ces systèmes possède sur la configuration de l'environnement construit et sur les résidents, la vie sociale, la satisfaction personnelle, le bien-être et la qualité de vie. Deux de ces systèmes, l'ascendant (en anglais, « bottom-up») et le descendant (« top-down »), sont familiers des planificateurs urbains, des architectes et des promoteurs urbains mais

ils ont pris une forme distincte dans le contexte de la Vielle Havane et de Cuba. J'argumente également qu'un troisième système hybride a émergé à Cuba en combinant et en empruntant des composantes des deux autres procédés susmentionnés. J'argumente que ce système hybride est caractérisé par les éléments suivants: la manière dont les décisions concernant les *designs* sont prises; la forme distincte de planifier, d'engager la main-d'œuvre; l'utilisation de différents matériaux et technologies en construction; la façon dont les projets sont financés; et le niveau de satisfaction des projets vis-à-vis des règlements d'urbanisme. Enfin, je postule aussi sur le fait que l'approche hybride donne du pouvoir aux résidents et satisfait le besoin de vision à large échelle pour le redéveloppement équitable. Un tel système hybride pourrait bien résoudre les problèmes de planification auxquels les villes des pays en voie de développement doivent faire face.

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Contribution to Knowledge

This dissertation is comprised of an introduction, four articles, bridging sections, and a conclusion. I conducted all the fieldwork on which the articles are based, which entailed field visits and interviews with Cuban housing officials, planners, community architects and residents of Old Havana. I also conducted all data analysis. I drafted the articles and the other sections of the dissertation.

I was assisted in specific ways by others. Access to data was facilitated by planners, architects and engineers in Cuba. My supervisor, Lisa Bornstein, and committee members, Nik Luka, Raphael Fischler, and Robert Mellin, provided advice on the central questions to be explored, the scope of the research, and the methodology to be employed. I received feedback on drafts from them as well as other faculty and peers at McGill's School of Urban Planning. My supervisor reviewed various versions of the full text and edited the whole document, Raphael Fischler provided feedback on the concluding chapter, and Nik Luka provided input to Chapter Four. Further assistance with editing and formatting was provided by Marisa Duenez and Anastasia Howe Bukowski. I also benefited from comments from the editor of Habitat International and several (anonymous) peer reviewers.

One of the articles has been published in an international peer-reviewed journal. The other three have been submitted to and are under evaluation at journals welcoming research on urban issues in the developing world, namely, the *Journal of Housing and the Built Environment*, *Housing Studies* and *Frontiers of Architectural Research*. All the articles deal with housing issues in Cuba. All four articles are presented as independent chapters, with introductions, reviews of literatures, methodologies, results, discussions and conclusions. The articles are preceded by brief introductory statements (bridges) presenting the questions that motivated them.

My research makes a contribution to the understanding of the different relations structuring the production of the built environment. By looking at the case of Old Havana, the research contributes to the way in which we conceptualize the design and production of buildings and the urban habitat. It does so by advancing the central concept of the 'building system'. Building systems comprise the different elements or components which come into play in the production of built environments and lead to the reproduction of habitats that have distinctive qualities in terms of their aesthetics and performance. My research reveals that buildings systems have five different components. These are the allocation of decision-making processes in relation to design, the range of different building technologies and materials involved, the ways in which the development of buildings are financed, the ways in which labor is contracted or provided and the regulatory aspects ruling the shape buildings may take. This research examines the development of the different building systems through which the urban environment of Old Havana has been produced following the collapse of the Soviet Union and the disappearance of socialism in Eastern Europe.

The concept of the building system contributes further to our understanding of the processes through which built environments are developed by allowing us to make connections between the macro level of political and economic structures and the micro level of actions and responses authored by residents. In the case of Old Havana, decisions occurring at the macro level take the form of the agenda promoted by the Cuban State in its quest to transform Old Havana in a major hub for tourism, thus reactivating the economy. By looking at this macro level, my research reveals connections between the geopolitical agenda pursed by the Cuban State and the ways in which buildings are regulated, designed, financed and constructed.

The central concept of the building system also reveals the interactions and connections existing between habitat and resident, specifically in relation to the responses and actions occurring at the micro level. By looking at the connections between the building system and the micro level, the research contributes to our understanding of the ways in which urban habitats are perceived by their inhabitants. The research contributes to knowledge by revealing the different ways in which residents position themselves in relation to the rapid change occurring in Old Havana. It reveals that opinions of the transformation of Old Havana are largely determined by individuals' socioeconomic profiles and levels of cultural, social and economic capital.

Furthermore, new data coming from my multidimensional study of Old Havana reveals three different systems at play in the production of its built environment. The first is the product of a vision developed at the highest levels of the Cuban State. This vision seeks to rehabilitate Old Havana by transforming it into a major hub for international tourism, thereby raising revenue in hard currency and reactivating the country's economy. Decisions regarding the renovation of Old Havana fit into a top-down approach. For two decades, denizens of Old Havana have witnessed the upgrading of plazas and pedestrian streets. This top-down approach has successfully developed bars, restaurants, boutiques and hotels that charge for their services in a currency paired to the American dollar. However, a large portion of Old Havana's population feels excluded from the project. They do not foresee themselves benefitting from the project and instead fear it will result in their displacement to neighborhoods located in the periphery of Havana.

The second approach to the built environment identified in our findings is embodied in the *solares* of Old Havana. *Solares* are housing units that have been built by subdividing apartments, making additions to rooftops, and extending living space onto patios. In order to reach these

types of housing units one must navigate through dark, and frequently dirty, passages. Often these abodes lack proper sanitation, natural lighting and access to clean water. While *solares* are unique to Old Havana, they share many characteristics common to other types of informal settlements populating the developing world. Data collected in the study reveal that many of the residents of the *solares* gain their incomes through informal economic means. Many residents moved into *solares* following the collapse of previous homes due to a lack of maintenance. In terms of decision-making, the production of *solares* fits into the realm of bottom-up approaches to the design of the built environment. Residents of *solares* transform their built environment without consulting authorities, often disobeying land-use regulations and building codes in the process.

However, data reveal another building system at play – one that is the product of the efforts of liberal architects, planners and engineers to develop novel ways of responding to local needs using participatory methods. I term this 'third' system a hybrid system. As a system, it borrows elements from both bottom-up and the top-down approaches. This hybrid system was developed in Cuba in the early 1990s by Habitat Cuba, a local non-governmental organization introduced by the Community Architect Program. The aim of such an approach was to provide people with design advice in relation to the construction, expansion, and renovation of housing units.

The hybrid system is based upon a methodology developed by the Argentinian architect Rodolfo Livingston. Here, community architects and residents are in direct contact over the course of the design process, developing plans that are the product of their collaboration. These custom-made designs respond directly to a family's needs and aspirations, all the while obeying land-use regulations and building codes. Field data collected in Old Havana reveals that those with relatively higher social, cultural and financial capital are more readily able to benefit from

the services of the community architects, as the stringent urban zoning regulations in place prevent architects from co-designing housing units that respond to the needs of the poor.

By documenting the work of the Community Architect Program, my research reveals implications for policy and practice in the realms of urban planning and architecture. My research suggests that 'hybridity' offers a way of balancing elements of the traditional bottom-up and top down approaches. Such hybrid solutions may lead to the redevelopment of habitats better able to serve the spatial, social and economic needs of residents of cities in the developing world.

Preface

In 2005, while a Masters' student at McGill University, I discovered the work of Christopher Alexander in the bookstore of the Canadian Center for Architecture. Alexander's work captured my attention, offering the most profound critique of modernity and the ugliness and dysfunction of the large majority of its buildings. Alexander's work prescribes participatory design as a remedy and an alternative to the methods of modernity, arguing it may produce better outcomes and more livable built environments.

Travelling across the Americas, the Middle East and the Balkans, I personally experienced built environments filled with livable forms of architecture. Witnessing the traditional design of the central districts of Damascus, Aleppo and Zagreb allowed me to experience what Alexander calls the "life" of the built environment.

One year later, during an interview with a Mexican scholar, I first heard of Cuba's Community Architect Program. As this colleague mentioned, the goal of the program was to empower residents by helping them make decisions about the configuration of their homes using participatory design techniques. The Community Architect Program presented itself as a manifestation of what Alexander and other critics had advocated for decades: a program enabling user participation-in-design.

In 2010, while a doctoral student, I visited Cuba for the first time. After successfully establishing contact with the Community Architects Program's officers, I was able to hear the voices of those who had worked to make citizen participation-in-design a reality. At this time, I learned about the work of Rodolfo Livingston, an Argentinian architect who codified the design method used by community architects across Cuba. The objective of Livingston's design theory was to facilitate and empower laypeople in making decisions about the design of their homes.

However, it was evident to me that the testimonies offered by the leaders of the Community Architect Program did not offer the whole story. Only after spending time living in Old Havana and conversing with Cubans from all different backgrounds was I able to understand the complexities of the country's participatory design program. These experiences led me to conclude that bottom-up approaches to the development of the built environment coexisted with top-down interventions, creating an urban landscape influenced by both the decisions of experts and the initiatives of laypeople. This dissertation illustrates and analyzes how these different logics coexist in space and time.

For the past decades, the face of Old Havana has been changing. As in many other cultural centers around the world, Cuban authorities have sought to capitalize upon their heritage, engaging in an ambitious renovation project of the historic district. Today, a network of streets connecting several public plazas in Old Havana offers tourists the opportunity to wander through carefully redesigned pedestrian routes. Along the way, tourists may spend their money in boutiques, restaurants, bars and hotels, paying with a special currency paired to the American dollar.

However, Old Havana is far from being completely restored. Those who venture outside its redeveloped streets and plazas will encounter a completely different reality. Beyond its new restaurants, boutiques, hotels and bars, there lies a neglected Old Havana, an area characterized by low-income housing compounds, crumbling buildings and the smells of rotting waste that accumulates for months in rubbish bins located at every corner. This is an overcrowded Old Havana, a district where entire families live in a single room. Old Havana tells us two stories: one filled with joy, music and parties and another filled with poverty and despair.

While formally operating according to a socialist economic model, Cuban society nevertheless seems to be divided along lines of income and class. Following six decades of socialism on the island, a new class of workers and entrepreneurs gaining an income in convertible currency paired to the dollar has emerged, making upwards of ten times the income earned by State employees. In Old Havana and in Cuba at large, a bartender may earn much more than a doctor.

The differences in experiences of those who earn a decent living versus those who do not is reflected in people's perception of their homes and quality of life. The majority of residents who participated in this study live in homes in poor condition; they complained of insufficient space, lack of privacy and substandard roofs leaking water when it rains. Many also complained about the way in which Old Havana is being transformed to support the city's tourist industry. The top-down model through which authorities in Old Havana are making decisions has inspired resentment and distrust among low-income residents. These residents did not express the belief that they would benefit in any way from the rehabilitation of Old Havana. On the contrary, they expressed the belief that they would be displaced to the periphery of Havana as a result of the State's transformation of residential buildings into hotels, bars, boutiques and restaurants.

Much of the material presented in this dissertation addresses people's perceptions of an ever-changing reality that is defined in large part by Cuba's engagement in geopolitics. The research was largely collected at a specific moment in time – the period leading up to the end of the US embargo on Cuban trade. Many interviewed stated that they felt as if socialism and the larger way political decision-making has operated on the island have spread misery. Over the last decade, policy has been conducted in Old Havana without the consent of the population. Many in Cuba feel that popular councils – the very institutions that everyday Cubans are supposed to be

able to participate within – are in fact controlled by the State, leaving no room for citizens to express themselves and rendering them unable to take their futures into their own hands. The emergence of the Community Architect Program occurred at a moment in which the State was weak and several other grassroots community initiatives were being developed as a response to the country's severe economic crisis. Once the Cuban government was able to establish relations with other left-oriented governments in Latin America, in particular the oil-rich government of Venezuela, it was able to dissolve, appropriate or control many of the community-based initiatives that had initially flourished in the early 1990s. For example, the organization that created the Community Architect Program, Habitat Cuba, was dismantled at this time. Another example of the Cuban State's return to power is its appropriation of *Talleres de Transformación Integral del Barrio*, organizations promoting different citizen-led projects.

This specific interplay between the State and local organizations and its repercussions for the development of the urban environment captured my interest and motivated me to conduct research in Old Havana and Cuba. By tracing connections between the macro and the micro, it has been my intention to illustrate different dimensions of Cuban politics and society. My research takes place in a fascinating moment, capturing a period in which Cuban society has begun to recover from the economic shock that followed the collapse of socialism in Eastern Europe. During this recovery, Cuba has been transformed into a more open and proactive society. The changes I document include the different approaches taken in addressing issues within urban districts. In addition, the research, importantly, also captures the ways in which individuals perceive themselves and attach meaning to their personal relationships and living environments.

Acknowledgements

This research would not have been possible without the goodwill, commitment and dedication of the faculty of McGill's Schools of Urban Planning and Architecture. Firstly, I must acknowledge the unconditional support of my supervisor Professor Lisa Bornstein, who helped me through the preparation of an initial research idea, guided me in the process of presenting my comprehensive examinations, assisted me in my search for funding and finally carefully read and commented on all the chapters and sections of this dissertation. Much more that simply providing editorial advice, Professor Bornstein helped me develop a suitable structure for all the different chapters of this dissertation and helped me engage with relevant debates in the fields of planning and architecture.

I must also recognize the contributions of Professor Raphaël Fischler, who offered critical advice concerning the structure and presentation of my Conclusion. He also provided assistance in the form of editorial comments on all of the chapters of this dissertation. Professor Nik Luka gave critical advice and suggested new ways of approaching the data and literature presented in Chapter Four. I am grateful to him for sharing and discussing theories related to housing quality and residential satisfaction.

I would like to mention the importance that Gonzalo Lizarralde's ideas have had in framing my understanding of debates surrounding public housing. Professor Lizarralde's work has helped me to develop analytic 'lenses' for engaging in debates around shelter in the developing world. I must also mention the support of Jason Prince, who helped and motivated me to pursue Montreal-based research.

I would like to express my gratitude to Professor David Brown, who always suggested new ways of approaching problems and new articles and books for me to read. Also, I must

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I am grateful to Marisa and Ana who completed the final editing of this dissertation. Thanks to their work I have been able to present an elegant document. Similarly, I would like to express my gratitude to Anabel, who helped me with the development of my graphics and to Mauricio, Ruben and Jean Noel for helping with the translation to French of the dissertation abstract.

I possess a huge debt to Professor Robert Mellin of McGill's School of Architecture. Professor Mellin connected me with Cuban scholars without whom I would not have been able to collect data and undertake my field research in Old Havana and Cuba. I wish to underscore, among these contacts, the importance of Mario Coyula, who sadly passed away last year. Mario Coyula impressed me as one of the most accomplished intellectuals I have had the opportunity to meet. Over several conversations, he shared with me his in-depth understanding of the processes related to formal and informal development in Havana and opened a door to the worlds of planning and architecture in Cuba.

Another remarkable figure with whom I had the opportunity to interact is Selma Diaz, a brave woman whose actions transformed the ways in which planning and architecture are practiced in Cuba. As the first director of the Community Architect Program, Selma Diaz ignited

a revolution within the revolution, giving power back to people through the design and construction of houses suited to their desires and needs.

During the first year of my doctoral studies, I was diagnosed with paranoid schizophrenia. It would have been impossible for me to move forward in my PhD without the care of a dedicated team of professionals at the Allan Memorial Institute. I would particularly like to express my gratitude to Myra Fogel, Ann-Louise Mckey, Ronna Schwartz, Patricia Mellin and Marc Laporta. They have done so much more for me than simply prescribing medication. Throughout all these years they have cared about my wellbeing.

Finally, I would like to express my gratitude to the brave planners and architects of Cuba. Even in face of great adversity, they never cease working to offer everyday Cubans the best possible living environments. As a result of their dedication, Cuba has become one of the few developing countries that has managed to eradicate homelessness.

I hope that my collaborations with the individuals mentioned here mark only the beginning of longer working relationships. I hope that the future will bring me the opportunity to design, develop and publish research in partnership with the great academic institutions of Montreal.

Chapter 1: Introduction

In general, the objective of this dissertation is to document and analyze the processes behind the production of the built environment in Old Havana after the end of the Cold War. Three distinct logics work simultaneously, acting in parallel to give Old Havana its unique mixed built environment and character. These three logics, the top-down renovation of Old Havana, the bottom-up small-scale interventions from low-income residents, and the collaboration between residents and community architects, blend to give old Havana its unique character. The authorities at the Office of the Historian and Plan Maestro – the two institutions responsible for the renovation of Old Havana – are developing their grand vision for the future of Old Havana. As they do so, they encounter the myriad interventions conducted by low-income residents, done without consulting the authorities and often fully ignoring what by-laws and building codes may say. At the same time, in the past decade, more fortunate families have invested in the renovation of their homes, seeking, in many cases, to add one or two rooms to rent to tourists looking for more affordable ways to visit Old Havana. This third group of independent families has received assistance from the Community Architect Program, an initiative seeking to provide residents with advice on design based on participatory methods.

The evolution of these three different logics behind the production of the built environment in Old Havana fits into wider debates about housing for low-income residents in the developing world. Authorities in Old Havana are committed to preserving the residential character of the historic district. However, given overcrowding, officials acknowledge that some residents will be relocated to other areas of Havana. Low-income residents of Old Havana fear they will be forced to move to the mass-produced housing estates at the periphery of Havana. The renovation of Old Havana translates into low-income residents' fear of displacement.

For a long time, authorities in many countries believed that it was possible to provide housing by developing mass-produced housing estates, using the industrial technologies that modernity has made available. These mass-produced built environments were designed by creating what were believed to be 'ideal' housing types. These ideal units were then multiplied; as a result, different families were to live in identical apartments. Critics noted that urban landscapes became visually repetitive. Furthermore, such 'modern' housing estates were demonstrated to alienate and seemingly isolate their residents (Alexander and Center for Environmental Structure, 2002; El-Masri and Kellett, 2001). Cuba, a developing country in the Caribbean (see Fig. 1.1), is no exception.

Figure 1.1: Map of Cuba

While mass-produced housing estates were popular among policymakers, they often failed to provide the environments low-income residents needed (El-Masri and Kellett, 2001). In Cuba, approaches towards housing were relatively more successful. However, after the collapse of the Soviet Union, Cuban households increasingly built housing, like in many other cities of the developing world, with their own means. Authorities in Havana turned their attention to developing different kinds of supports for self-help housing: the Community Architect Program reflects such trend in policy.

Old Havana stands out as a district where these different logics are at play. It distinguishes itself from the rest of Cuba as a district where a concerted effort to redevelop the area as a major hub for international tourism has occurred. A portion of the territory, the one which has been identified as priority for redevelopment, has been upgraded to create a collection of elegant buildings offering visitors the experience of an 'authentic' Caribbean city. Currently, some 20% of Old Havana has been restored. Restoration has occurred through two different practices. Significant buildings, such as the magnificent Cathedral, have been restored through cleaning and polishing. Other buildings have been demolished and reconstructed. The historical character and tourism potential of Old Havana means that the top-down approach does not translate into the construction of repetitive high-rise buildings. The Office of the Historian, the unit in charge of the renovation, has done a good job in redeveloping and recreating paths where visitors can wander and consume. However, the rationale behind its work is not to assure the well-being of the inhabitants of Old Havana. While part of its mandate is the preservation of the residential character of the historic district, the Office of the Historian's primary motive for renovations is to attract more tourism. We can question the ways in which tourism affects the lives of the residents of Old Havana and the ways in which common Cubans perceive the transformation of their habitat. My research tries to explore these questions while keeping in mind that Old Havana is the playground of three different approaches to the development of the built environment.

User Participation

User participation in the design of housing is an alternative practice in urban planning and architecture. It is grounded in a group of ideas questioning the top-down decision-making models that dominated the modern production of housing throughout the 20th Century.

Showing that new buildings are not necessarily more attractive, appropriate or efficient than old buildings was a first step in reviving interest in housing produced by traditional decentralized

processes. Bernard Rudofsky's exposition, *Architecture without Architects* (1964), provided a demonstration of the aesthetic, function and cultural richness of vernacular architecture. Further research in vernacular architecture and self-help housing emphasized the connections between culture and the built environment (Rapoport, 1969; Turner and Fichter, 1972; Alexander et al., 1977; Glassie, 1999). In addition to paying attention to cultural elements and the meaning that houses have for their residents, Amos Rapoport (2005) explores how landscapes are continuously shaped and transformed by the actions and decisions of thousands of people over time; he argues that behind these decisions are cultural schemata. Thus, the culture of a place is as important as the climate in the shaping of a house. In the influential *A Pattern Language*, Alexander et al. (1977) argues that success in architecture occurs when the physical structure of a building follows the social structure of a community.

Recent research exploring human perception of architectural spaces has identified parallels between properties that bring quality to buildings and the physical structures of the natural world. Alexander and the Center for Environmental Structure (2002; 2002b) found that voids exist in both coral reefs and the physical fabrics of traditional cities. In the case of the traditional cities, we call these voids 'plazas.' According to this research, such architectural properties appear in the built environment when users have control over the design decisions and building processes. Research on housing in developing countries also resulted in the key notion that residents should have control over the building process (Turner and Fichter, 1972; Turner, 1976). This idea attracted the attention of the World Bank and has motivated policies promoting aided self-help housing in developing countries.

In recent years, the literature reflects a growing interest in users' participation in housing and in urban processes more broadly. This existing literature on participatory approaches towards the

development of the built environment is discussed below. The questions structuring this literature are: What are the advantages of community participation (Carmon, 2002; Das, and Takahashi, 2009; Lemanski, 2008)? What are the degrees to which the community can and should participate (Brown & Jacobs, 1996; Choguill, 1996; Davidson et al, 2007; Lizarralde and Massyn, 2008)? What institutions adequately support a productive relationship between housing design and community participation (Buckley and Kalarickal, 2005; Keivani and Werna, 2001; Keivani, et al, 2004; Jennings, 1999)? Such research has generated both conceptual and empirical knowledge examining user participation in housing.

The research highlights, on the one hand, limited knowledge about how to implement participation-in-design into the production of social housing in developing countries. Notably, it seems extremely difficult to introduce participation-in-design into social housing produced by the public sector. Part of the difficulty is the attitudes of public sector employees; for instance, Nascimento, Salomao and Hardy (2009) found substantial opposition to participatory design methods on the part of public authorities in Brazil.

On the other hand, research suggests that participation-in-design can be successfully introduced. While participation in the design of public housing projects is often highly circumscribed the opposite may be true in projects lead by NGOs as well as in projects initiated by residents. The proposed research seeks, among other objectives, to illustrate the significant experience that Havana has had in the last decade in developing participatory methods and practices for the production of social housing. Indeed, my research points to specific factors that facilitate user participation-in-design. My research suggests that the successful introduction of user participation-in-design, at least in Cuba, is related to the presence of a strong civil society at

the macro-level of the political landscape and higher degrees of cultural capital at the micro-level of the household.

Building Systems

Building systems are the methods through which buildings, neighborhoods, and cities are designed and constructed, and which produce the built environment that surrounds us. Alexander et al. (2012) describe the prevalence of two building systems in our world: System A and System B. System A is a system of production in which local adaptation is primary. Its processes are governed by methods that make each building, and each part of each building, unique and uniquely crafted to its context. In contrast, System B is dedicated to an overwhelmingly industrial-like philosophy. The components and products are without individual identity and frequently have an alienating psychological effect. Alexander's approach to building systems is well-suited to understanding processes that occur in both developed and developing countries.

Building upon the definitions of building systems outlined by Alexander et al. (2012), I developed a more refined definition of the concept. Review of literature, reflection on the development of the built environment, and extensive fieldwork in Cuba as well as across different countries of Latin America led to the identification of these five fundamental elements in the development of the built environment. I argue that building systems are ways that organize five fundamental elements during the development of a building, a neighborhood or a city. These elements are: design decisions, building technologies and materials, labor, financing, and regulations (see Fig. 1.2).

Figure 1.2: The building systems and their components

Furthermore, building systems are the result of relationships and connections that exist at both the macro level (i.e., the political landscape) and the micro level (i.e., the perception and action of individuals and families) (see Table 1.1). This conclusion is supported by the data collected during field work in Old Havana and the rest of Cuba.

Table 1.1: Building Systems

Building System	Renovation of Old Havana: Top-Down approach	Production of *Solares*: Bottom-up approach	Co-design by community architects and residents: Hybrid approach
Connections at the Macro Level	Redevelopment of the built environment seeking to raise revenue in hard currency	Collective and individual strategies of survival in the face of the development of globalising district	Introduction of liberal ideas by civil society and community oriented activists
Connection at the Micro Level	Provision of a world-class built environment for the experience of international tourism	Low-income residents seeking to improve their settlements without support from the state	Middle and upper-classes able to hire labour for the construction of designs developed in partnership with the community architects

In other words, building systems are defined by the connections between their different components. Such connections are dependent on the nature of each one of the five elements described above. They may be seen as processes that involve municipalities, developers, NGOs and residents. By considering the five elements that constitute a building system, it is possible to go beyond the dichotomy proposed by Alexander et al. (2012) and realize that different configurations of the five fundamental elements can lead to the development of a 'third' system. In this dissertation, I am referring to this 'third' system as a hybrid system. Below, I describe in detail the characteristics of the three different building systems. While data supporting these conclusions come from the case of Old Havana, it should be noted that the evolution of 'hybrid systems' is not exclusive to the context of the historic district. Hybrid systems may be evolving across different regions of the developing world.

Building System A (see Fig. 1.3) is a way of building that has existed since before the industrial revolution and is propelled by independent processes. In this building system, users make the decisions about the configuration of the built environment. Such a system has existed in parallel to professional architecture and planning. Throughout his career, Christopher Alexander has documented such processes and their outcomes (Alexander et al., 1977; Alexander and Centre of Environmental Structure, 2002a, 2002b). In Alexander's view, building processes in which decisions made by the users lead to aesthetic beauty and more human-oriented environments. Debatably, having control over the design of one's home allows residents to live in the house they want. Furthermore, Alexander suggests that architecture that evolves through a step-by-step process develops characteristics or properties similar to those of the physical structure of the living world. For instance, in *The Nature of Order*, Alexander examines fifteen fundamental properties that exist in both traditional architecture and natural structure

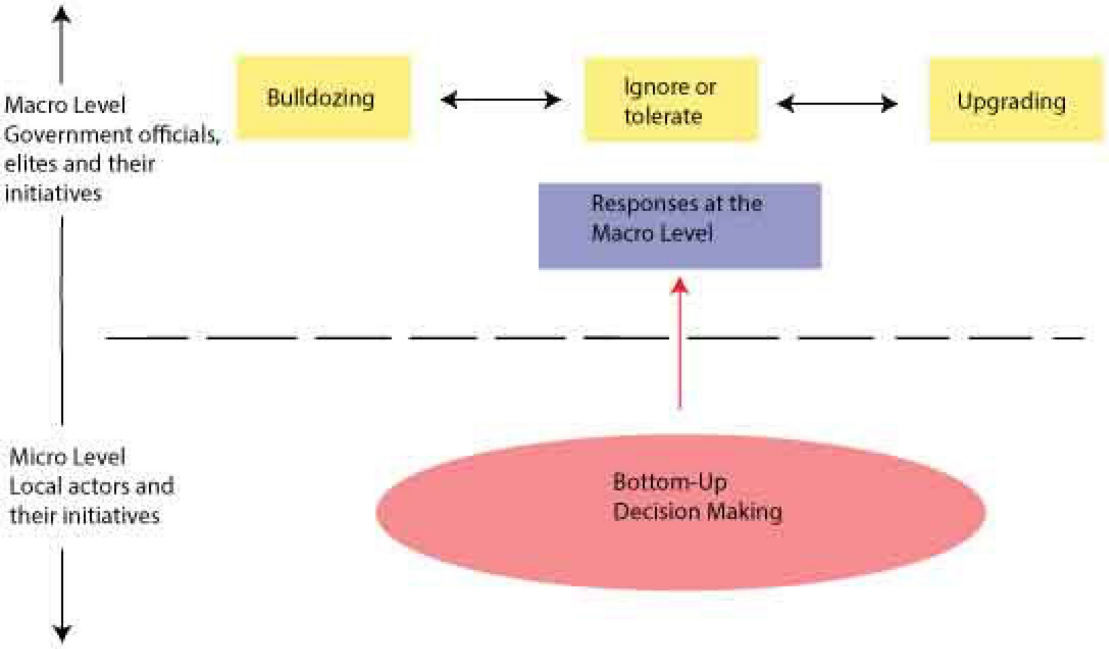

Figure 1.3: System A: macro and micro levels

(Alexander and Centre for Environmental Structure, 2002a, 2002b). Housing development in the informal settlements of cities in the developing world fits within the definition of the System A. In the informal settlements, houses are often hand-built by the inhabitants themselves. The inhabitants also often design them. As Alexander and others argue, while residents must face great challenges during the process of creating and building a home, when a family has the opportunity to design and construct, the layout of the house responds to the needs of its occupants. It is to be noted that several factors have an impact in this progressive process of urban development. Tenure, economic growth and the attitudes of municipalities towards slums all play a role in the improvement of the quality of life informal settlements offer to their residents. Dovey and King (2012) examine the aesthetic qualities of the informal settlements; in their view, the settlements are picturesque environments that evoke nostalgia and authenticity

and possess a distinctive aesthetic profile. Furthermore, informal settlements seem to provide environments where people can build trusting relationships amongst neighbors and often allow residents to create economic opportunities. Evidence from Latin America suggests that informal settlements can be upgraded over time, becoming lively neighborhoods where people can prosper to a certain degree (Imparato and Ruster, 2003). The development of informal settlements allows for the growth of integrated land uses. Also, higher densities translate in opportunities to introduce public transit. Finally, networks of companionship facilitate collective organization seeking the introduction of basic services.

However, the issue of the informal settlements remains controversial. Huchzemeyer (2011) observes that over the past decade, there has been a push throughout the developing world to remake the image of the city. The idea that cities must look modern and be filled with landmarks demonstrating material progress has influenced policymakers (Huchzemeyer, 2011). For instance, in seeking to create buildings that could provide prestige and status to their cities, some planners and architects have fought against the persistence and upgrading of the informal settlements. Power dynamics permeate the relationships between authorities and residents of informal settlements. Also, issues around the legality of the land and the regulation of the ways in which buildings are designed have been found in many countries. Authorities across the developing world have introduced urban regulations seeking to raise standards and control the development of the built environment. Sometimes these urban regulations prevent the poor from building affordable housing. While not all architects and planners agree that informal settlements must be eradicated, it is undeniable that, in the past, some politicians in the developing world sought to eliminate informal settlements and redevelop them with environments that evoke the impression of progress. Huchzemeyer (2011) compares the destruction of informal settlements in

Africa to the renovation of Paris led by Haussemann in the 19th century. Indeed, there is a tension among those who believe that material progress is only possible through the development of modern estates, and those who believe that the progressive improvement of the informal architecture of the slums provides a better solution to the housing needs of low-income residents. Example of the latter are schemes seeking to revitalize informal settlements while promoting forms of 'dark tourism.' Program promoting tourism in informal settlements can be found in Southeast Asia (Dovey and King, 2010). It is argued that such programs help by making informal settlements visible and create connection that can lead to transformation and improvement.

Building System B is associated with mass prefabrication and the production of parts in a serial way. It is the result of a top-down approach and the concentration of decisions in the hands of experts (see Fig. 1.4). Developed during the advent of modernity, it works by producing parts to be assembled in a manufacturing process and is ruled by notions of efficiency. Figure 1.4 illustrates how decision made by officers and politicians create different responses at the micro level.

Users usually face difficulties to adapt buildings produced through system B. Designs that are not planned to offer flexibility and to be changed over time prevent residents from making adaptations. While there are some examples of designs made to be adapted over time (Wong, 2010), buildings produced through System B are rarely customized to fit the needs of its users. Built environments that have been developed under this system can be monotonous. From the

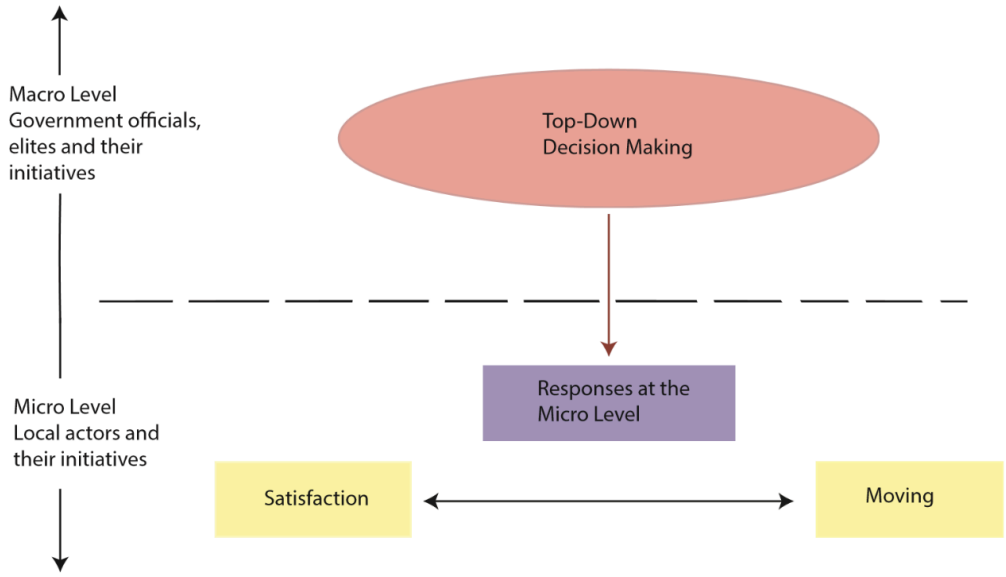

Figure 1.4: System B: macro and micro levels

philosophy guiding System B comes the implicit belief that newer is better. When it comes to the built environment, mass-production of housing units created landscapes difficult to identify with a region or a culture. In fact, it is quite challenging to guess where these mass-produced environments originated as a housing complex in Cuba may look exactly the same as one in Moscow or Beijing. Such mass-produced environments have been denounced for their squalor and ugliness (Wates and Knevitt, 1987). Also, they have been found to neglect the socio-cultural needs of their occupants (El-Masri and Kellett, 2001). Moreover, it is ironic that mass-produced artifacts that were once perceived as modern go out of fashion and became perceived as old. Building System C is the result of combining elements from Systems A and B. The analysis of data collected in this research project suggests that System C, a middle ground between the building systems proposed by Alexander, has evolved in Cuba. The idea that a hybrid building system exists is in line with the notion that reality is not only black or white but, rather, comes in shades of gray. Notably, the Community Architect Program of Cuba has developed a way to produce design decisions in partnerships with users. Within Building System C, design decisions come from municipalities as well as residents (see Fig. 1.5). This is because, on the one hand,

community architects are mandated to help residents develop their own designs so that the spatial configuration of a house reflects the needs and desires of individuals or families. On the other hand, community architects must ensure that designs proposed by residents comply with existing urban regulations. Ultimately, the designs coproduced by architects and residents reflect the will of both authorities and residents. It is to be noted that 'hybrid systems' are not exclusive to Old Havana or Cuba. Forms of hybridity are spreading across the cities of the developing world.

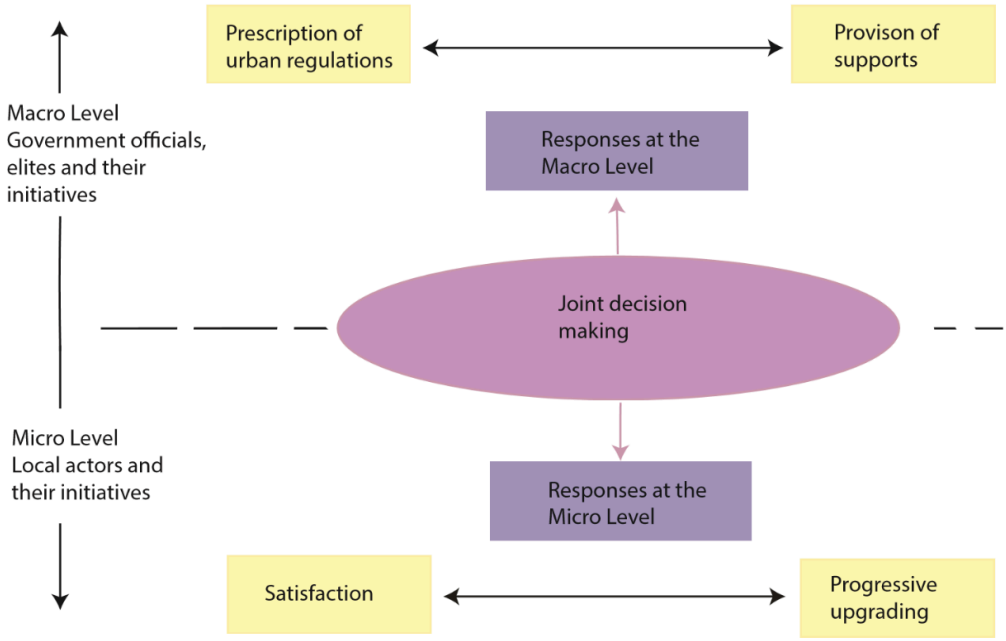

Figure 1.5: System C: macro and micro levels

Building Systems in Cuba: Housing during the Revolution

By the 1980's, Cuba's housing situation was relatively good when compared to other Latin American nations. There were no extended informal settlements and people's rights to housing were secured on the island (Mathey, 1989). At the same time, the socialist government had managed to eradicate homelessness as those that lost their homes had the option of living in shelters. Despite these achievements, housing conditions had been far from optimal for a long time. Many Cubans had suffered from overcrowding and lived in dilapidated housing units.

However, improving housing conditions had not been a priority for the government. From the early days of the Revolution until 1989, the government concentrated on industrial and rural development, as well on education and health (Mathey, 1989). The policy approach and housing outcomes from 1959, when Fidel Castro took power, onwards were as follows.

In the 1960's, Havana, low-income residents found opportunities to move to better housing as the massive emigration of middle and upper classes left many buildings vacant. Many houses on the island were distributed among those who needed them most (Hamberg, 1986; 1994). At that time, the socialist Cuban government ended land speculation by introducing a by-law specifying a flat rent of 4.00 Cuban Pesos for each square meter (Scarpaci, Segre and Coyula, 2002). This policy resulted in the end of real estate speculation and the elimination of capitalist land development. After this law, only the State and individuals (through self-help, described later) participated in the construction of housing. The Cuban government, aided by the Soviet Union, turned its attention to the construction of mass-produced built environments. Nearly 50% of all dwellings built in Cuba during the revolutionary era were produced through highly industrialized methods (Scapaci, Segre and Coyula, 2002). The result was the erection of repetitive blocks with a standardized appearance. By the mid 1960's, even Fidel Castro, president of Cuba, criticized this model of production because of the monotonous urban landscape it created (Mathey, 1989). As well, Cuban planners and architects gradually realized that mass-produced housing units were incompatible with the cultural and social needs of the population (Scarpaci, Segre and Coyula, 2002).

The Cuban government never gave much attention to self-help housing in its typical form (i.e., individual efforts to build housing) (Mathey, 1989). There were no programs in place providing loans for purchasing materials or distributing plots of land where low-income residents

could build homes. Despite the lack of government help, locals continued to build houses themselves. It became clear that low-income residents preferred living in custom-made homes rather than in mass-produced environments, which were often located far away from urban centers, lacked amenities, and had few opportunities for shopping or socializing with neighbors. Often individuals' efforts collided with urban regulations seeking to give Cuban cities a modern image. However, while there was lack of support from the government, as housing needs mounted, so did self-help housing in Cuban cities, particularly in Havana (Scarpaci, Segre and Coyula, 2002; CED, 1976; Comite Estatal de Construccion, 1977; Coyula 1985).

During the 1970's, the government developed a new solution to housing and other construction needs: the *microbrigadas*. These were construction units formed by workers selected from factories, offices and other production units. The *microbrigada* workers would receive training enabling them to carry out construction work. Often, *microbrigadas* would build housing for all the workers of a factory. Mathey (1989) sees *microbrigadas* as a form of mutual self-help housing. By 1978, there were more than 1,000 *microbrigadas* working across Cuba. While they were popular in the 1970's and 1980's, they have been criticized because they require *brigadistas* to work in their free time and during weekends. While the intention of *microbrigadas* was to organize and mobilize labor to solve the housing needs of the population, some see them as a form of exploitation (Mathey, 1989). Nowadays the *microbrigadas* approach has been almost completely abandoned.

Research Context: Cuba after the Fall of the Soviet Union

During the second half of the 20th Century, Cuba relatively prospered under a socialist development model. While the island had a negative record in terms of personal freedoms and free press, efforts at the national level led to the provision of free high-quality health care and

education. Cuba also managed to eradicate the most severe degrees of homelessness. By the late 1980's, Cuba was one of the most egalitarian societies in the world (Kath, 2010).

This positive trend in the welfare and quality of life of Cubans was suddenly interrupted by the collapse of the Soviet Union and the end of socialism in Eastern Europe. It is estimated that following the fall of the Berlin Wall, Cuba lost 75% of its international trade (Taylor and McGlynn, 2009). The Cuban gross domestic product (GDP) shrunk by one third (Gray and Kapcia, 2008), from 22,080 million pesos in 1988 to 12,868 million pesos in 1994, with the economy at its lowest point. Furthermore, Cuba faced international isolation. The US embargo against the island was tightened and US diplomacy sought to prevent other nations from establishing links with Cuba (Gray and Kapcia, 2008). In Havana, unemployment reached 8.8 percent. It was estimated to be close to zero in the late 1980's (Coyula and Hamberg, 2003).

Havana, like the rest of the country, suffered greatly during this period of decline. Low funding resulted in a lack of investment in infrastructure leading to negative environmental impacts (Colantonio and Potter, 2006). The void in Havana's finances led to a rapid decline in services and a deterioration of the built environment (Uriarte, 2008). In 1994 alone, 614 buildings collapsed and 375 had to be demolished (Taylor, 2009). Waste recollection became unreliable; the streets of several neighborhoods in Havana were filled with rotten waste piling in the containers located at intersections (Uriarte, 2008).

The general decline of Cuban socioeconomic conditions forced the government to seek new international trading partners in both the West and Latin America. In 1989, a somber Fidel Castro informed the Cuban people that their revolution was on the verge of collapse (Taylor and McGlynn, 2009). Extraordinary measures were taken to reinsert the Cuban economy within global markets. Old Havana, in particular, was to play a central role in the new economic

strategy of the island. Cuban policymakers decided to make tourism the key driver of economic development. Power dynamics in Cuba were affected by the transformation of the economy. As Cuba tried to reinsert itself in the world, new actors working at different levels acquired importance in the political landscape of the nation, a departure from the centralized power described below.

Before the collapse of the Soviet Union, Cuba was characterized by highly centralized decision-making processes. In 1976, a Soviet-style pyramidal electoral system—called *Poder Popular*—was introduced (Gray and Kapcia, 2008). As a result of this new political configuration, technocrats gained power and undermined the influence that the *revolutionaries* had over political processes and decisions. Experts concentrated further power and the decision-making process became even more centralized. The political mobilization that characterized the first decades of socialist revolution was replaced by a highly centralized system in which the decision-making process was manipulated by a few key figures working at the national level (Uriarte, 2008). Subsequently, a very strong central government, and relatively weak provincial and municipal governments, characterized Cuba (Uriarte, 2008).

While municipalities had little influence on national decision-making processes, they were responsible for providing and managing the delivery of most public services. These were not limited to waste collection or water distribution. Under socialism, municipalities also became responsible for operating public stores, where Cuban purchased their groceries (Uriarte, 2008).

The Cuban political system also provided citizens with an opportunity to participate in decision-making through the local assemblies of the *Poder Popular*, however, while specified in theory, in practice the municipalities proved to be too large in scale and failed to provide solutions to the issues emerging at the local level (Uriarte, 2008). As discussed below, in

Havana, local *Talleres* became responsible for coordinating projects seeking to solve basic needs and for creating interactions between residents and municipalities (Ramirez, 2005).

Some argue that the process of decentralization that characterized Havana during the Special Period—the period of economic crisis after the collapse of the Soviet Bloc—began even before the fall of the Berlin Wall. Gray and Kapcia (2008) argue that in 1985, Fidel Castro began to dismiss technocrats at different levels of government, seeking to restore revolutionary principles that characterized Cuban politics in the 1960s.

Highly disciplined mass organizations had always had a role within the highly centralized decision-making systems of Cuba (Gray, 2008). Such organizations established a link between central government and citizens. They have proven to be crucial tools in aiding the government to mobilize the population and achieving collective goals. For example, it is estimated that the Cuban Federation of Women comprises over 80% of all women over the age of fourteen (Gray, 2008). Also, the Committees for the Defense of the Revolution (CDRs), the legislative assemblies, and the agencies of the executive branch were among the few options that Cuban citizens had and have to communicate with those in power (Stewart, 2006). These mass organizations play a role in mobilizing the community in the prevention of disasters (Lizarralde et al, 2015). In the past, they participated in campaigns aiming to provide literacy to all. Despite their important role, Cuban mass organizations have failed to solve problematic aspects of the relationship between communities and their built environment. As Cuban decision-making processes favor the collective over the individual (Stewart, 2006), individuals and families receive little support to upgrade or maintain their housing.

Old Havana - Old Havana, the historical heart of the Cuban capital (see Fig. 1.6) has approximately 4000 buildings and a population of around 70,000 (Bailey, 2008). It was founded

in 1519 and for centuries was a key trans-shipment point between the Old and New Worlds (Colantonio and Potter, 2006). Four decades of socialism contained the growth of Havana. Contrary to what happened in other Latin American countries, investment in rural areas contained rural-urban migration and the growth of Havana (Colantonio and Potter, 2006). The proliferation of informal settlements in the capital was relatively small as compared to other cities of the developing world (Coyula and Hamberg, 2003).

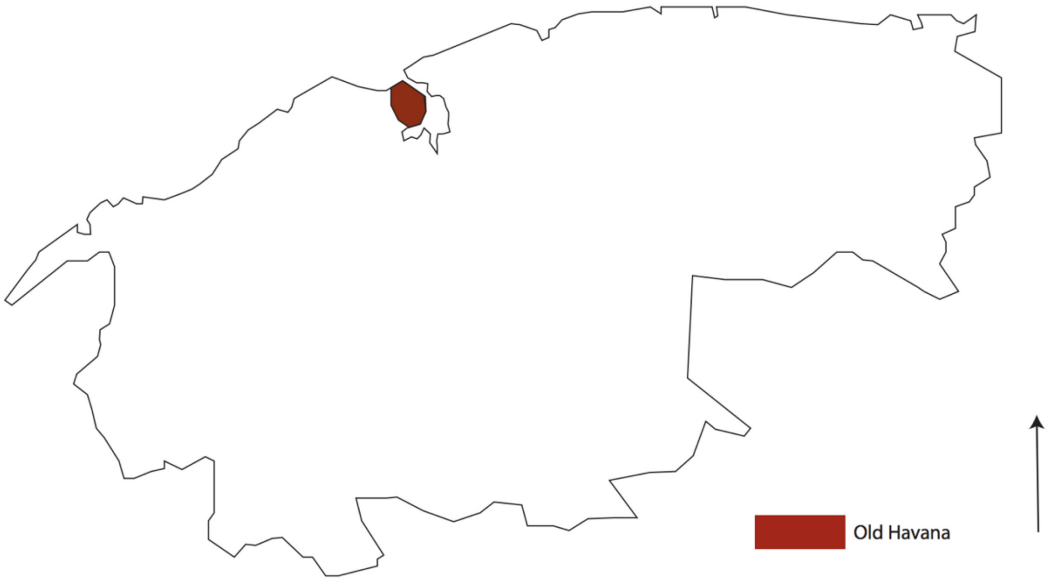

Figure 1.6: Map of metropolitan Havana

The Revolutionary Agenda - After seizing power with a widely-supported guerrilla war, the *rebels* (or *revolutionaries*) displayed an agenda of social development unparalleled in the history of contemporary Latin America. In a speech known as *History Will Absolve Me*, Fidel Castro, the leader of the revolution, laid down the basic problems that the Cuban government would seek to address. These were: the problems of land tenure, industrialization, housing, unemployment, education, and health care (Taylor, 2009). The extent to which the Cuban regime managed to successfully address these issues is debatable. While Cuba is a regional leader in the fields of education and health care, the Revolution has had mixed results in the field of housing.

The *rebels* directed a large portion of their resources (as well as that of the domestic building industry) towards remaking the cultural landscape of cities, particularly Havana (Knox, 1991; Laurence and Low, 1990). The *revolutionaries'* goal was to reshape the city so that it reflected the interests and identities of the working, or *popular,* class. As part of a program to build new symbolism and identity, the most significant buildings were assigned new uses (i.e., the transformation of the Palacio into a Museum). In addition, the Revolution also put in place policies seeking to reduce spatial segregation in terms of class and race (Taylor, 2009). Neighborhoods such as Playa and Vedado experienced an influx of low-income households moving to properties that were vacated by upper and middle-class households that abandoned the island after the revolution. The *revolutionaries* brought about policies reflecting the idea that housing was a human right. A year after seizing power, the revolutionary government enacted a policy that forbade evictions; they also reduced rent to no more than 10% of household income (Taylor, 2009). Other progressive policies promoted home ownership; by the late 1980's, Cuba had the highest proportion of home-owners in Latin America. Finally, the Revolution managed to eradicate the worst degrees of homelessness.

At the same time, the socialist government of Cuba joined the war against the informal settlements. Shantytowns, such as Llega y Pon, Las Yaguas, and La Cueva de Humo, were demolished (Taylor, 2009). While in the early days of the revolution, the *revolutionaries* initiated mutual self-help programs, by the 1980's, housing developments were following modern designs. Even Fidel Castro publicly condemned such developments because of their ugliness and inability to match the needs of the Cubans. However, technocrats working within the Cuban government imposed the idea that modernity and industrialization had to prevail if Cuba was to prosper.

Despite policies seeking to provide households with secure tenure, Havana's housing shortages translated into overcrowding. Households overwhelmed with the challenge of surviving on one or two dollars a day could not afford to invest money in necessary housing renovations. The decay of the housing stock is a staggering characteristic of *barrios* like Old Havana or Centro Havana.

In parallel, the high degree of ownership and the lack of evictions have resulted in the remarkable stability of the population at the level of the *barrio* (Taylor, 2009). Stability has in turn encouraged the development of strong bonds between neighbors, which have been associated with a boost in local projects in many cities of the developing world (Daniere, Takahashi and Naraning (2002). Also, remarkably, the policies set in motion by the *rebels* resulted in socially-mixed neighbourhoods (Taylor, 2009). Policies towards racial and social integration broke down the barriers that characterize the cities of the Western World.

The Development of International Tourism - The wreckage of the Cuban economy in the Post-Soviet era is associated, to some extent, with the government's redefinition of its economic strategy (Taylor and McGlynn, 2009). Tourism is at the center of the new strategy. In the past, Cubans were given the right to vacations and tourist centers focused on domestic travel. International tourism was almost non-existent in Cuba before the 1990's. During the crises, however, international tourism was the only viable strategy that would allow Cuba to capture revenues in much needed hard currency. The Cuban government's turn towards international tourism has been a way to use capitalism to save socialism (Taylor and McGlynn, 2009).

Between 1990 and 2000, the number of rooms in hotels in Cuba increased from 4,700 to 12,000. Such a development was only made possible by the willingness of the socialist

government to engage in joint ventures with the international private sector. Spanish, German, and French corporations began to operate in Cuba.

The influx of hard currency meant that the government had to develop ways of capturing such revenues. One way of doing this was the introduction of retail stores operating in convertible pesos, a currency paired to the American dollar. Retail stores, selling items as diverse as electro-domestics, imported clothes, rum and cigars, could attract and international clientele.

It was clear for Cuban authorities that Old Havana was the country's major attraction and asset (Taylor and McGlynn, 2009). Using a top-down approach to restore buildings to their former magnificence, redevelopment was entrusted to an agency called the Office of the Historian. Starting with the renovation of four plazas in Old Havana, the Office of the Historian developed a network of pedestrian paths filled with boutiques, restaurants, bars and hotels. New infrastructure sought to provide visitors with an "authentic" experience of a Caribbean city. It is notable that these renovated paths are filled with live music. Some twenty world-class bands play live music for the enjoyment of the tourists. In addition, Old Havana's renovated streets showcase Cuban art and handicrafts.

Old Havana is mostly visited by tourists coming from Western Europe. The gross revenue created by the tourist industry has been constantly growing. In 1995, the industry raised US$ 1.1 billion in revenue. By the year 2000, this revenue had grown to US$ 2.2 billion (Taylor, 2009). It is evident that tourist revenue allows the government to keep providing social services to the population. In other words, as stated above: capitalism helped save socialism. However, the development of tourism, in general, and, the redevelopment of Old Havana, in particular, came with unwelcome impacts on the cultural practices of the Cubans. While the government has tried, to the extent possible, to keep international visitors separate from locals, tourists have had a

profound impact on the way Cubans perceive themselves. In many ways tourism has played a key role in eroding the master narrative of the Revolution, the creation of the New Man. The influx of tourism has made prostitution a staggering feature of the Cuban society. The youth imitate the consumerism of tourists. They believe that the Revolution has prevented Cubans from enjoying a good life in the traditional Western way, in which the consumption of goods is a means to acquiring status (Taylor and McGlynn, 2009). The exposure to Western lifestyles causes Cubans to lament their inability to consume.

The influx of tourists in Old Havana also resulted in people abandoning their traditional jobs and seeking employment in the tourist industry. A job as a bartender in one of Old Havana's bars can yield an income ten times higher than that of a doctor working in the public health system. Other ways in which locals seek to take advantage of the opportunities created by tourism include the establishment of guesthouses. Families are investing their savings in the renovation of their apartments so that they can receive tourists seeking an affordable way of travelling in Old Havana; for example: a visitor will pay US$15 per night for a room in a guesthouse as compared to over US$200 in a hotel.

As a result of tourism, polarization is occurring in Havana. In the third chapter of this dissertation, I explore this polarization and how it is reflected in the built environment. I provide evidence that the redevelopment of Old Havana has produced two different realities. Furthermore, my research indicates that, at least in terms of building systems, a third 'hybrid' way to produce the built environment has emerged. Such 'hybrid' systems are the result of borrowing elements from both the formal and the informal, as well as the interaction of the top-down with the bottom-up.

The Emergence of Civil Society and Citizens' Participation - Using tourism to save the socialist regime of Cuba was not the only change on the island. Social problems in the neighborhoods of Havana required the state to divert resources towards aiding the population. Lacking those resources, the government reluctantly opened the doors of Cuba to international aid and allowed the development of semi-independent NGOs (Uriarte, 2008). NGOs working at the grassroots level sought to boost citizens' participation in decision-making processes, especially at the local level. On the one hand, several scholars have found that the high levels of education in the Cuban population facilitated participation in community oriented projects (Diaz Carbo, Uriarte and Davalos Rodriguez, 1998; Dilla Alfonso, Fenradez Soriano and Castro Flores, 1998). On the other hand, the state enacted stringent regulations aimed at controlling and limiting the action of NGOs operating in Cuba (Uriarte, 2008). The role of NGOs has been debated at the highest levels of Cuban politics. It is the belief of some officials that an independent civil society is incompatible with the socialist development model and that citizens' participation should happen through the local assemblies of the *Poder Popular*; the work of NGOs, in this view, is

Figure 1.7: The emerging civil society in Cuba

redundant in the Cuban context (Gray, 2008). However, an emerging civil society was able to introduce change in Cuba during the worst years of the crisis. For example, various issues (for example, domestic violence) were addressed with participatory techniques implemented by local *Talleres* (Ramirez, 2005). These *talleres* were spaces created to strengthening the bonds within the community and create social support among neighbors (see Fig.1.7).

The degree to which citizens are allowed to participate in the decision-making process is highly contested in both socialist regimes and liberal democracies. Cuba is no exception. Official discourse maintains that popular participation is one of the fundamental principles of Cuba's social project and that various channels exist to allow people to participate in the political process (Rodriguez, 2009). The local Assemblies of the *Poder Popular* are the entities in which citizens are supposed to have a say in the decision-making process. The research I conducted in Old Havana illustrates that people do not feel they can participate in the decisions that shape their environment. However, as is true elsewhere, it is impossible to say that people fully participate or do not participate at all. Citizens' participation in political processes occurs in varying degrees. The seminal works of Arnstein and Choguill propose the existence of a ladder of participation. In the Cuban case, Linares (2003) identified four different degrees of popular participation in the implementation of projects. These are 1) Mobilization and consumption, 2) Consultation, discussion and conciliation, 3) Delegation and control, and 4) Shared responsibility and co-determination.

The local Assemblies of the *Poder Popular* are, in theory, the place where people can bring their priorities for local development to the attention of the municipalities (Rodriguez. 2009). In practice, the Assemblies of the *Poder Popular* suffer systemic weaknesses. A study conducted during the Special Period found insufficient training of delegates for the task of governing, weak

management of collective action as a tool for problem solving, supplanting of representative bodies by administrative entities, and the ritualization of delegate reporting to constituents (Dilla et al, 1993). Further, official discourse supported the idea that citizens could participate in the politics by enrolling in mass organizations such as the Committees for the Defense of the Revolution of the Cuban Federation of Women. However, the operation of new, internationally funded, NGOs changed the notion of citizens' participation in Cuba. It has been argued that NGOs have gained autonomy from the government in defining their priorities and promoting action at the local level (Gray, 2008).

By the mid 1990's, the *Poder Popular* and the traditional mass organizations, at least in Havana, were no longer the main way for people to participate in decision-making. In the midst of the economic meltdown that occurred in Cuba, new forms of participation at the level of the *barrio* were inserted in Havana; namely, new semi-independent organizations emerged backed by international NGOs and development agencies (Ramirez, 2005). In almost all of Havana's neighborhoods, organizations promoting change at the grassroots were introduced. These organizations were called *Talleres de Desarrollo Integral del Barrrio*. Using a participatory approach and benefiting from international aid, the *Talleres'* multidisciplinary staff conducted projects as diverse as countering domestic violence and promoting urban agriculture (Ramirez, 2005). Also, by building alliances with local workers and international donors, the organizations managed to develop some housing and fight overcrowding, a severe problem in Havana.

The development of *Talleres* was not the only contribution of the civil society to change at the local level. Notably, during the early 1990s, a novel approach to planning and architecture flourished in Havana and in Cuba. The project was called the Community Architect. Chapters 5 and 6 of this dissertation examine in detail the development of the project, its achievements and

limitations. For the time being, it is opportune to mention that the Community Architect was introduced by the NGO Habitat Cuba. The Community Architect Program is another example of how civil society developed in the Cuban political landscape during the harsh days of the Special Period. Importantly, the project entailed South-to-South knowledge transfer and, to some degree, economic support from international aid agencies. The project aimed to place citizens' participation at the core of the redevelopment of the built environment (Stewart, 2006).

Furthermore, change in Cuba was promoted by the emergence of religious groups and faith organizations. It has been argued that Cubans turned to religion as a way of escaping the anxiety and stress produced by the economic situation they faced on a day-to-day basis (Ayorinde, 2008). For the first time, during the Special Period, religious people were permitted membership in the Communist Party (Gray, 2008). In addition, in the early 1990's, religious groups were distributing and widely circulating publications. Such publications can be perceived as the genesis of an independent press in Cuba (Riobo, 2013). At the same time, policymakers recognized the important role that the Afro-Cuban religion has in the social practices of the island. By the mid 1990's, Cuba became a secular country allowing the free practice of different religions (Ayorinde, 2008).

Finally, it is important to mention the impact that arts have had in shaping cultural practices across Cuba. The best example is the upheaval ignited by the release of the film *Fresa y Chocolate*. The film promoted open discussions regarding homosexuality, culminating in its decriminalization. The process illustrates that despite its centralized system and lack of some liberties, Cuban society and political system are able to process change. In summary, the stress that the collapse of the Soviet Union caused in Cuba forced the socialist regime to allow and promote change at different levels. On the one hand, the need to reactivate the economy forced

Cuban authorities to promote international tourism as a way to generate revenue in hard currency. At the center of this economic development strategy is the rehabilitation of Old Havana. On the other hand, with the intention of alleviating the social problems caused by the crisis, the government allowed the development of NGOs and the civil society. Such dramatic changes were only possible in the context of a period in which the State became weak and unable to provide for the well-being of the Cuban population.

Research Problem

This research seeks to answer the following questions: how have different building systems (approaches towards the development of the built environment) emerged and coexisted in time and space in Old Havana during a period of social and economic change? How are different building systems—particularly bottom-up and hybrid systems—perceived and evaluated by residents of the historic district?

In order to address these questions, I have conducted a multidimensional study of Old Havana. Old Havana provided an ideal setting for exploring issues that are present across the cities of the developing world. The research looks at the different components characterizing distinctive ways through which the built environment is produced. It also seeks to illustrate how residents, depending on their socioeconomic profiles, develop distinctive perceptions of their living environment and its rapid change.

Beyond the global research problem of the dissertation, different chapters address specific research sub-problems and questions. Chapter Three looks at the prevalence and evolution of different building systems. It explores the way in which an "hybrid" approach towards the production of the built environment evolved in Old Havana by borrowing elements from both the top-down and the bottom-up. This chapter answers the following question: How do building systems evolve by exchanging and borrowing elements from each other?

Chapter Four looks at the way in which residents of Old Havana perceive the rapid change that the historic district is undergoing. The chapter seeks to provide an explanation for existing gaps between the poor environmental quality of the housing units of Old Havana and the high levels of residential satisfaction expressed by the residents. Furthermore, this chapter explores the impact that the renovation of Old Havana has in people's residential satisfaction.

Chapter Five looks in detail at the development of the Community Architect Program. The research seeks to document the codification of a method that enables architects to interact with clients to facilitate the elaboration of design proposals for the renovation, expansion or construction of houses by the residents themselves.

Finally, Chapter Six looks in detail at the performance of Community Architects in Old Havana. The chapter seeks to find explanations for both the success and the failures of the community architect initiative in the context of Old Havana.

Dissertation Presentation and Sequence

This dissertation is made up of four articles; their final presentation here has been assisted in specific ways by others. Notably, I had feedback on my ideas, plans, analysis and drafts from faculty and peers at McGill's School of Urban Planning. Also, planners, architects and engineers in Cuba facilitated access to data. One of the articles has been published in Habitat International. The other three are under evaluation at different international peer-reviewed journals: the Journal of Housing and the Built Environment; Housing Studies; and Frontiers of Architectural Research. All the articles deal in one way or another with housing issues in Cuba. The way in which the various chapters fit together and respond to the central questions and themes

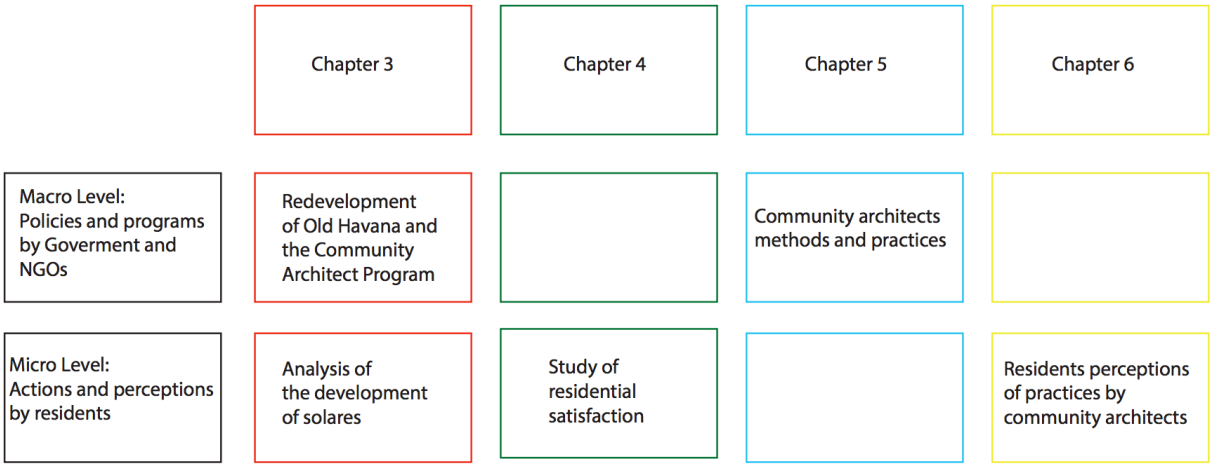

Figure 1.8: Research Map

is presented in Figure 1.8. All articles are presented as independent chapters, with introductions, reviews of literatures, methodologies, results, discussions and conclusions. The articles are preceded by brief introductory statements, bridges, seeking to present the questions that motivated them.

Chapter Three analyses the coexistence of different building systems in Old Havana. It describes how a 'hybrid' approach for the development of the built environment has emerged in Old Havana and Cuba. This chapter argues that this "hybrid" system combines elements of two approaches that have been described as opposites. On the one hand, a top-down model of decision-making promoted by the Cuban government which has renovated a network of pedestrian streets and plazas, creating an environment that fosters consumption by international tourists visiting Havana. On the other hand, bottom-up fashion through which residents of Old Havana have been making independent small-scale interventions to their dwellings. This third chapter also allows readers to familiarize themselves with the research, planning projects and architectural interventions in Cuba after the collapse of the Soviet Union, understand housing

conditions in Old Havana and the way in which these differ from other Latin American countries.

Chapter Four is introduced by a brief reflection on the appropriateness of the available housing options for low-income residents in the developing world. That is, living in standardized housing units built through mass-industrial methods as opposed to living in low-income housing compounds that share many of the characteristics of the informal settlements. This article uses the lens of residential satisfaction to explore and analyze the residents' perceptions of their habitat. This second article offers the reader an in-depth exploration of the elements that explain the high degree of attachment that Old Havana residents experience towards their living environment. It is argued that despite suffering from poor housing conditions, low-income residents prefer to stay in central districts as opposed to moving to better housing units in large-scale residential complexes in the periphery.

Having introduced the debates around the reconstruction of Old Havana and offered an analysis of housing conditions in the historic district, the third article, presented in this dissertation as Chapter Five, documents the emergence of the Community Architect Program, an initiative assisting and aiding self-help housing. This third article is introduced by a brief reflection on our global need to involve residents in the decision-making process, including users' participation in the design of their living environments. The article documents Cuba's contribution to the landscape of participatory processes and discusses how and why the Community Architect Program is a step in the right direction. The evidence presented in this article was obtained by interviewing officers and designers working for the Community Architect Program. This paper reflects the good intentions and hopes of a group of liberal architects seeking to make the practice of architecture more democratic.

In the final article, Chapter Six, I evaluate the interventions of community architects in Old Havana. The evidence presented in this article comes from testimonies of both designers and residents that beneficiated from the services of a community architect. After collecting testimonies from the community architects at their offices, I interviewed residents seeking to obtain information related to their degree of satisfaction with the service. Data analysis revealed a clear pattern. Households with higher levels of cultural capital and more economic resources can profit from the service of the community architects, while low-income residents distrust community architects.

The dissertation concludes with a recapitulation of the findings. In this conclusion, I reflect on the presence of contested politics in Old Havana. Phenomena such as squatting and illegally subdividing apartments are temporarily tolerated by authorities who have a vision for Old Havana, one which is not shared or supported by the residents. The conclusions discuss the implications of my findings for theory and practice. In relation to theory, I examine the pertinence and limits of the concepts proposed throughout the dissertation. At the same time, I present a note on the appropriateness of the methods used to collect and analyze data. Finally, the contributions of the Community Architect Program and the rehabilitation of Old Havana to the landscapes planning and architecture in developing countries are discussed. The results of the research and their context are further discussed in the light of the reestablishment of bilateral relations between Cuba and the USA. It is argued that the end of the embargo may accelerate the rehabilitation of Old Havana, increasing pressure on low-income residents and widening the gap between those that have and have not.

Chapter 2: Research Design and Methods

The objective of this research was to document how different building systems emerged and prevailed in Old Havana during a period characterized by a profound economic crisis and in subsequent periods; and to explore their significance to both the built and social environment of the city. The literature concerned with urban development in the developing world suggests that there are two dominant approaches used in the production of built environments. On the one hand, there exists a top-down approach characterized by decision-making being concentrated in the hands of a few experts. On the other hand, there exists a bottom-up approach in which low-income residents build their homes with their own hands and rely on their own imaginations in developing design ideas (Alexander, et al., 1985; Turner and Fichter, 1972). This second approach is commonly referred to as 'self-help'. Fieldwork in Old Havana has confirmed the existence of the two dominant approaches described above. However, it also revealed the emergence of a third 'hybrid' approach, which is characterized by a borrowing of elements from the top-down and bottom-up approaches.

Field research in Old Havana focused on documenting and describing different approaches to the development of the built environment in Old Havana. Visual observations and semi-structured interviews confirmed the existence of three different approaches. These approaches were analyzed by describing different dimensions that pertain to all building systems (labor, building technologies and materials, financing, design and urban regulations). Furthermore, by using the lenses of the concept of residential satisfaction, the research explores how residents of Old Havana perceive the development of these three different systems. The research also details the development of a 'third' hybrid system under the umbrella of the Community Architect Program. The research describes in detail the development of a methodology seeking to facilitate

residents to participate in the configuration of their living environments. In addition, the research documents how residents perceive the work of community architects in Old Havana. Finally, the research pulls together an analysis of the diverse items used to explore how people attach meaning to the different building systems, describing how these have various outcomes in terms of social and cultural processes, fragmentation and spatial form.

My multidimensional study of Old Havana was designed with the goal of understanding how different building systems—one top-down, one bottom-up, and one hybrid—have flourished and retreated in one district over space and time. The main questions binding together the four articles presented in this dissertation are: how have different building systems (approaches towards the development of the built environment) emerged and coexisted in time and space in Old Havana during a period of social and economic change? How do residents of the historic district perceive and evaluate these different building systems, particularly the bottom-up and hybrid systems?

To answer these questions, I have looked at the case of Old Havana. Old Havana is a district undergoing rapid change propelled by an ambitious renovation program. Since its reconstruction is still in its infancy, the majority of the built environment exhibits substantial deterioration. While authorities in Old Havana have managed to develop hundreds of businesses, such as hotels, cafes, restaurants, bars and boutiques, and have upgraded public space in selected areas, most of the population lives in substandard housing units which lack space, natural lighting and privacy. There have been two reactions to the physical decline of the district. Local residents have undertaken self-help renovations, often in disregard of regulations. Secondly, they have drawn on the assistance of the Community Architect Program, an initiative started in the 1990's that was aimed at facilitating resident-driven decision-making concerning the redevelopment of

their built environment. The program offers residents guidance on renovating and reconstructing their own homes.

This research analyses how both the state-led renovation of Old Havana and the intervention of community architects are perceived by residents of the historic district. The research was conducted while keeping in mind the importance of people's experience of the built environment and their possibilities for changing it as they seek to create more comfortable places to live. The research revealed complex interactions and connections as these different approaches toward the development coexist in Old Havana. Beyond, the obvious connection between tourism and the creation of businesses and jobs, the research explores how the redevelopment of Old Havana is perceived by residents of the *solares* and how it impacts the way in which residents perceive themselves. Throughout the research, I collected testimonies in which people expressed their hopes and fears, their perceptions of opportunities, and their feelings of despair. The research was designed to allow residents to become the protagonists of their own stories. I have paid attention to the stories people wanted to tell.

Following a brief introduction to the general questions that this dissertation will address, this chapter presents the research questions and objectives of the four articles in the dissertation. This initial presentation of my questions and objectives is then followed by a section explaining the data-gathering process. Finally, at the end of the chapter, I reflect on the ethics of my methodology and elaborate on the difficulties and barriers that I faced while conducting research in Cuba.

Framing the Research: Four Sets of Research Questions and Objectives

The first goal of this project was to understand how different approaches to producing the built environment interact and prevail in Old Havana. To do so, I considered how upgraded areas

contrast with areas that exhibit a poor environmental quality. Further, I situated the urban changes afoot in Old Havana within a larger debate concerning the rehabilitation of historic districts across the globe. Throughout the developing world, cities are seeking to attract investments and new sources of revenue. Often this quest leads municipalities to engage in large-scale urban rehabilitation projects. However, districts targeted for rehabilitation are typically inhabited by low-income residents whose everyday practices and survival strategies conflict with grand visions held by authorities.

The first paper presented in this dissertation, Chapter 3, diagnoses the redevelopment profile of Old Havana. The questions framing this article are as follows:

- How do building systems evolve by exchanging and borrowing elements from each other?
- What approaches are being used to redevelop the built environment of Old Havana?
- What are residents' strategies for adapting their living environments?

These questions were answered by surveying residents of a typical street in Old Havana. The area selected had not yet been rehabilitated (see Appendix for sample questionnaires and interview guides). The survey focused, first, on capturing socio-demographic data. Participants were asked their age, income, occupation and household size. I then asked residents for their opinions on the community architects as well as the restoration project managed by the Office of the Historian. I also collected data on the degree of safety people feel in their homes; this was an important issue as many buildings in Old Havana have decayed to the point of collapse. At the same time, I made visual observations of the street and the quality of the housing units. I compiled notes describing issues such as overcrowding, water leaks and lack of natural lighting, privacy, and ventilation. Finally, I asked residents whether they feel as if they can participate in

the redevelopment decision-making process in Old Havana. The specific objectives of the paper thus are to:

(a) to document the different development strategies or systems as they have evolved in Old Havana,

(b) to identify the elements of different building systems in order to classify and understand them,

(c) to identify the different practices employed by residents and authorities to develop the built environment in Old Havana,

(d) and, to describe and analyze the evolution of a 'third' 'hybrid' building system in Old Havana.

The article documents the persistence and evolution of different systems of urban redevelopment in Old Havana. In doing so, I look at the characteristics and conditions of low-income housing and demonstrated that, in comparison with the elegant hotels, boutiques and restaurants produced by a top-down system, residential compounds that have proliferated through bottom-up practices have been neglected by authorities. These housing compounds are locally known as *solares*. Finally, I outline how a third 'hybrid' system that borrows elements of the other two building systems has emerged in Old Havana. Drawing on literature from the fields of anthropology, sociology and management, the chapter explores the hybrid nature of the historic district and its distinctive third building system. In sum, Chapter 3 documents the evolution of three building systems in Old Havana in light of literature on decision-making, hybridity, and the built environment of historic districts.

In order to go further and deeper with my diagnosis of Old Havana, I conducted a study of residential satisfaction. The resulting article is presented as Chapter 4. In the past decades,

scholars from developed and developing countries have searched for determinants of residential satisfaction. A large body of literature has been devoted to the analysis of which types of residents are most satisfied: for example, those who rent properties or those who own them. However, conventional methodologies seeking to quantify the phenomenon of residential satisfaction cannot adequately capture the profound level of residential satisfaction for those who have built their homes with their own hands. In the context of Caracas, Venezuela, Esther Wiesenfeld (2002) developed a qualitative approach for analyzing residential satisfaction among self-help builders. The use of qualitative methods allows us to better capture the dynamic dimension of residential satisfaction in the context of rapid urban change, such as in the low-income housing compounds of Old Havana. Following the work of Wiesenfeld (2002), I use qualitative methods to study the changing experiences of residential satisfaction among residents of Old Havana.

The second article revolves around the following questions:

- What factors explain Old Havana residents' perceptions of residential satisfaction?
- How do neighborhood change and trajectory impact residential satisfaction?
- What explains residents' perceptions of change in the historic district?

These questions were answered by collecting data through semi-structured interviews with residents of Old Havana. Key questions asked during these interviews were: How do people feel about their dwellings? How do they feel about their neighborhood? Would they move to other districts in Havana if they had the opportunity? How do they think that the renovation of Old Havana will have an impact on them? (See Appendix for sample interview guide.) During questioning, socio-demographic data was recorded in order to analyze patterns in the responses.

The results of this research are presented in Chapter 4 of this dissertation. The specific objectives of the article are to document:

(a) how residents perceive the renovation of Old Havana;

(b) the ways in which neighborhood's trajectory has had an impact on residential satisfaction;

(c) residents' attachment and residential satisfaction with their neighborhood; and

(d) the elements that explain residents' perceptions of the renovation of Old Havana.

This research strategy enabled me to understand determinants of residential satisfaction. Specifically, it allowed me to document high levels of attachment to the neighborhood despite poor housing conditions.

Once I completed the diagnosis of Old Havana, I turned my attention to an evaluation of the policies that have been set in motion to address the needs of Cubans confronting the task of improving their built environment. One such policy is the Community Architect Program, the specific subject of this part of my study.

In the third article of this dissertation, presented as Chapter 5, I document the emergence of the Community Architect Program of Cuba and the interactive methodology used to facilitate citizens' participation-in-design. This article indicates how the Community Architect Program facilitates resident-driven decision-making on issues relating to urban redesign in Cuba. The objectives of the article were:

(a) to document the participatory method used by the Community Architect Program,

(b) to identify the institutional characteristics of the Community Architect Program, and

(c) to document the evolution of the implementation of participatory design methods in Cuba.

These objectives were addressed via qualitative analysis of semi-structured interviews. Specifically, I conducted semi-structured interviews with officers from the Community Architect Program. The conversations served to document and describe the methods developed by community architects, analyzing their approach step-by-step. The multi-step interview process, occurring between architect and client, is analyzed to see the role it plays in facilitating citizen involvement in urban redesign. These data were complemented by interviews with Cuban scholars and a review of relevant literature. The data collected also revealed facts about the history of the Community Architect Program and its evolution in the midst of the Cuban economic crisis known as the Special Period. The Community Architect Program stands out as an initiative that successfully—at least for some time—integrated residents into redevelopment decision-making processes. The third article of this dissertation thus analyzes public policy, basing this discussion primarily on testimonies from officials, activists and other key informants.

The final article, included as Chapter 6, goes on to evaluate the results of these policies by examining the testimonies of people who have shared in the process of designing their homes with the help of the community architects. The research responded to the following questions:

- What factors explain the success or failure of projects seeking to assist individuals or families in the design of their homes?
- To what extent does the Community Architect Program allow lay people to take control over decisions that concern the configuration of their living environments?
- To what degrees are households in Old Havana satisfied with the services offered by the community architects?

In order to answer these questions, I examined projects that were successfully completed by residents. I additionally analyzed 58 residents of Old Havana's perceptions of the Community

Architect Program (see Appendix for sample interview guide). While dealing with this final set of questions, I analyzed projects led by the Community Architect Office of Old Havana. In performing my analysis, I studied blueprints and plans and interviewed both the community architects and their clients. During the interviews, I asked questions addressing how the proposed designs were made to fit the stringent urban regulations that are in place in Old Havana. I asked questions probing the clients' satisfaction with the services of the community architect. I also enquired about the tools used in the design process to help clients visualize the solutions that were being proposed. Here, I collected data on the socio-demographic profile of the participants. Finally, I examined cases in which clients considered the interventions made by community architects to be successful. In these cases, clients expressed a high degree of satisfaction with the services of the Community Architect Office of Old Havana. These results were compared with opinions of the community architects held by low-income residents.

Data Collection

Specific methods employed are described in the chapters to which they pertain. The overall approach is described here. To perform the research, I employed various data collection techniques. After completing a literature review, I investigated the specific case of Old Havana. Case studies are a standard approach applied in the investigation of practical issues in which the experience of the research subjects is central and the context of the process is critical (Gagnon, 2010). Case studies have been widely used in studies of urban and housing issues in developing countries (e.g., Das and Takahashi, 2009; El Masri and Kellet, 2001; Ismail, 2011; Joshi and Khan, 2010; and Kigochie, 2001).

I chose to study the case of Old Havana for two reasons: the significance of its participation-in-design program and its rapid change into a hub for international tourism, change propelled by

an ambitious government-led renovation program. Data availability and the uniqueness of the environment were also key elements informing the selection of Old Havana as a case study.

Data were collected in two phases:

During the first phase, I investigated the development of the participatory design method within its institutional context. Data were collected through semi-directed interviews with responsible designers, planners and housing officials; interviewing practitioners is an established approach used in gaining detailed information on participatory processes (Moser and Stein, 2011; Ndezi, 2009; Ramirez, 2005; El Masri and Kellet, 2001). In line with these studies, my interviews with architects focused on the carrying out of the design process and the application of different participatory techniques with clients. We discussed how the use of plans and feasibility studies served to reflect the expectations of all family members. Similarly, I investigated how they perceive participatory design approaches, the degree of difficulty involved in implementing them and the main barriers to the success of such approaches. Finally, I collected information about the organization of the Community Architect Program and how the local institutional setting affects participatory design practices. In sum, this first data collection phase documented the techniques used by designers to elicit information from residents, the strategies architects employed in making design proposals accessible to families, the institutional framework for the selected design programs, and the ways in which these programs fit into the larger context of housing policies and practices.

During the second stage of the data gathering process, I conducted in-depth interviews with residents of Old Havana. Specifically, I interviewed residents of a particular section of Old Havana. These interviews allowed me to conduct an ethnographic study of housing issues in Old Havana. I also collected peoples' stories, which revealed their opinions of the changes occurring

in Old Havana and their perceived roles in the context of this change. Furthermore, I interviewed residents who had collaborated with a community architect on a redesign of their home. I obtained data recording their perceptions and questioned them on their degrees of satisfaction with the process. Answers provided by these residents allowed me to carry on with simple post-occupancy evaluations. During this second set of interviews, I documented residents' experiences of participatory design techniques such as role-play, visualizing tools and participatory drafting/drawing/plans-making. I analyzed how exposure to these participatory techniques empowered different household members over the course of the design process. Finally, I asked residents whether their involvement in a participatory design procedure allowed them to save money in the building process. The interview techniques I used here are similar to those employed in past studies of participatory housing production and design (e.g., Das and Takahashi, 2009; Pikholz, 1997; El Masri and Kellett, 2001).

The data collection methods I adopted offer the following advantages: flexibility in their implementation, an enabling of deliberative interactions between researcher and participants and a richness of data grounded in the experiences of the informants (Walker, 1985). El Masri and Kellet (2001) applied a similar data gathering strategy in a study collecting information on households undergoing home reconstructions in post-war Lebanon. Qualitatively, the strategy grasps the affective dimension present in bottom-up home building processes and allows for the observation of important local socio-cultural conditions. The information obtained during interviews was complemented with notes, observations, photos and sketches.

Finally, relevant economic data and basic socio-demographic indicators were analyzed. I also examined public regulations, statutes and policy documents relating to the local housing system.

Ethical Considerations

Researching in Cuba carried with it the challenge of protecting the rights and integrity of participants. On the one hand, Cuba is not a liberal democracy and the country has a doubtful record in terms of protecting human rights. On the other hand, Cubans are very sociable and like speaking to foreigners. While I required a personal reference or an introduction in order to find research participants, reaching the community was certainly not an impossible task.

After presenting the adequate materials and forms, I was granted approval to conduct research with human subjects by the McGill Research Ethics Board. The ethics certificate number is 480-0513. I have taken measures to protect the identities of all the participants in this research. All information was kept in a password-protected laptop. I also decided to provide all participants with fake names, even to those who agreed to be identified. Following the publication of the research and an appropriate verification period, all recordings will be deleted, ensuring that no one will ever be able to identify the identities of speakers. All participants were presented with a consent form (in Spanish) in which their rights as subjects of research were explained. I received their consent and explained to them the objectives of the research. On many occasions, I reassured them that contributing to knowledge was the sole intent in doing research with them.

This research was undertaken at the end of an era in Cuba. While the country lacks a free press and other aspects central to liberal democracies, the political landscape of Cuba is changing with the advent of a growing civil society combined with the increasing action of citizens at different levels. Interactions between visitors from developed countries and residents of Havana have had an impact on Cuban culture. It is evident that Cuban citizens do not feel the same degree of isolation that prevailed during the Cold War. Cultural change has eroded the master

narratives of the revolution. Today Cubans are free to practice a religion of their choosing and homosexuality has been decriminalized. The sense of change was apparent in the research process. While individuals preferred not to be interviewed about politics by a person they did not know, they were willing to discuss housing with someone who had been introduced to them by another local. At no point during the interviews I conducted did I perceive distress or discomfort in the research participants. The material drawn from fieldwork – including observations, interviews, surveys, and renovation plans – provides documentation of Old Havana from the Special Period to the present, as it is poised for another series of changes. As a result of the current negotiations with the US, Cuba may face a new post-embargo era. Investments, notably in the tourist industry, will multiply. It remains to be seen, despite changes to the country's economic model, whether Cuba will preserve the great achievements of the revolution - universal healthcare and free education - and how Old Havana, as well as the country more generally, will weather the likely changes to the country's economic model.

Chapter 3:

Between the Formal and the Informal: The Evolution of a Hybrid Building System

Abstract

This article examines the emergence of a 'hybrid' building system in Old Havana. This building system evolved in the historic district of the Cuban capital through the 'borrowing' and 'mixing' of elements from both 'bottom-up' and 'top-down' approaches to the production of the built environment. This 'hybrid' system, when functioning well, provides residents with choices throughout the design process, allowing them to have control over the configuration of their homes and apartments. Equally, this hybrid system assures that all construction is kept in line with existing urban regulations. In providing evidence of this distinctive 'third' building system, I question the validity of the widespread notion that there are only two oppositional approaches to the development of the built environment in the developing world. Notably, I argue that we must go beyond the dichotomy of formal/informal approaches and embrace the idea that hybrid building systems may be most effective for engaging with the production of the built environment in the developing world.

Introduction

Cuban authorities have invested in a multi-million dollar program to redevelop Old Havana (Scapaci, Segre and Coyula, 2002). As of today, four plazas, their surroundings and a network of pedestrian streets have been renovated, changing the space into a world-class destination for international tourists.

However, beyond the redeveloped areas, there remains a landscape of decaying and overcrowded buildings. Locals call these substandard buildings *solares*. The physical differences between redeveloped areas and *solares* are evident to planners and architects. They suggest the existence of two distinct building systems in the historic district. On the one hand, the development of hotels, boutiques, restaurants and cafes reflects a formal top-down approach. On the other hand, the *solares*, with their thousands of low-income dwellers, represent an informal strategy in which residents make adaptations to their homes without considering urban regulations. *Solares* have been developed by subdividing apartment building, and constructing in patios and on rooftops. In addition, the area has seen efforts by architects and residents to resolve local architectural challenges together, using practices of participatory design. The paper explores three questions emerging from this quick portrait of Old Havana: what are the characteristics and types of built environments in the area; what sets of logics and actors – or building systems – are producing them; and what lessons do we learn about hybridity, as contrasted with formality or informality, in urban development from the case of Old Havana?

It is important to define what we mean by 'building systems' here. Building systems are ways of shaping and building our living environments. They may operate as production systems, systems of thinking, systems prescribing ways to plan and build, ways of organizing labor and craft, ways of taking care of the land and administering financial investments and ways in which people use and relate to the built environment, such as whether they develop a sense of spatial belonging or not (Alexander et al, 2012). Building upon Alexander's definition of building systems, I argue that the concept has the potential to link forces at the macro-levels of politics with architectural and planning outcomes. It can also link these outcomes to the micro-level of residents' attitudes and perceptions towards the built environment. Notably, one of the most

prominent characteristics defining a building system is the role that users have within the decision-making process. At one extreme, in what I label as Building System A, decisions about the configuration of the built environment are made uniquely by users. At the other extreme, which I refer to as Building System B, decisions are made uniquely by experts.

Like in many other historic districts around the world, the redevelopment model implemented in Old Havana follows a top-down approach. Authorities maintained a highly centralized decision-making process. In 1981, in order to attempt to reverse the visible decay of Havana's historic district, the Cuban State created an administrative unit called the Office of the Historian. A year later, in 1982, UNESCO designated Old Havana as a World Heritage Site. The project of redeveloping Old Havana began with the visual improvement of various of its public plazas. To complete the renovation projects, a small department of architecture became affiliated with the Office of the Historian. Fig. 3.1 illustrates the areas that have been redeveloped and the areas that are still dominated by *solares.* This map is the product of carefully conducted visual observations while walking across Old Havana.

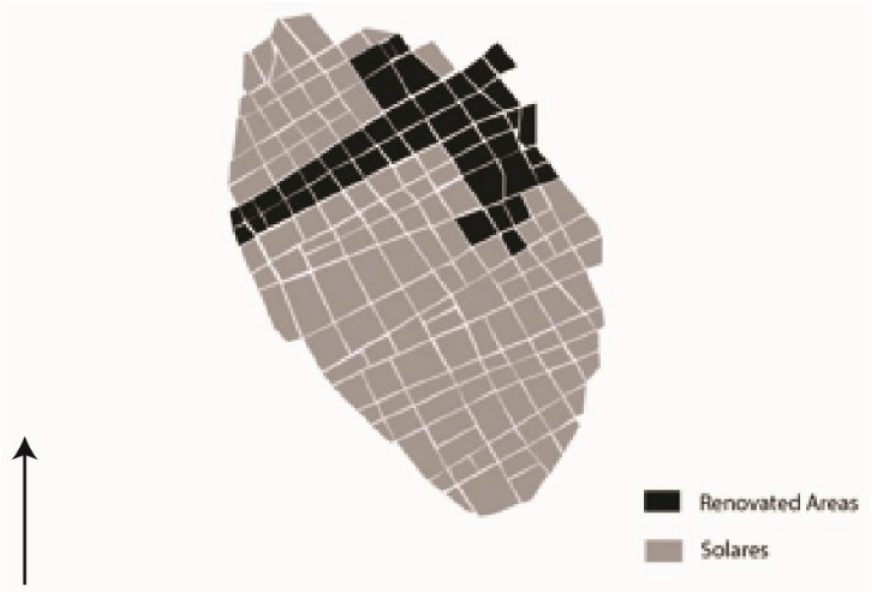

Figure 3.1: Map of Old Havana

The redeveloped urban landscape of Old Havana privileged the interests of tourists seeking out the experience of an 'authentic' Caribbean city. These areas provide amenities to tourists but fail, in many respects, to serve the needs of the local population. The restoration of Old Havana was a project planned and managed by the State using a top-down approach; residents were excluded from the decision-making process. The result is that the State, in restoring Old Havana, has failed to create an environment from which average Cubans can benefit. Other researchers have observed similar dynamics elsewhere. It has been argued that the exclusion of lay people from decision-making processes shaping the built environment leads to the development of dysfunctional urban landscapes (El Masri and Kellet, 2001).

While the rehabilitated areas poorly serve local residents, the older areas also exhibit problems. Old Havana shows signs of great deterioration. Its decay began after Cuban independence when new suburban communities were created at the west end of the city, a development which led to the displacement of industrial activities further towards the periphery (Le Bel, 2004). The process of selling and subdividing mansions and luxurious residences of the historic district and of then transforming them into *solares* began well before the Revolution. Housing compounds grew through the subdivision of existing buildings and the construction of precarious units on rooftops and patios. Residents dwelling in *solares* often live in minimal housing units; they suffer overcrowding and lack natural lighting, clean water and privacy. Entire families are settled in rooms as small as 16 square meters. *Solares*, inner city housing compounds, inhabited by low-income residents, though similar to *vecindades* in Mexico City or *tugurios* in Lima, are the product of Cuba's unique past, entitlements and residential composition.

These contrasts point to the importance of the underlying systems that coexist in producing the built environment. This paper examines the dichotomy between the formal and the informal, the top-down and the bottom-up, in Old Havana. It argues, based on fieldwork conducted in the historic district, that a third 'hybrid' building system combining elements of the two 'original' systems has emerged. The article illustrates how projects developed by both residents and architects under the scope of the Community Architect Program are producing the built environment through a 'hybrid' building system. It is to be noted that 'hybrid' building systems can take many forms; for example, the case of a rich family building a large house while disobeying urban regulations can be classified as a form of hybridity.

I argue that the success of this hybrid approach depends on its capacity to manage the existing tensions between the original 'pure' systems. The third system allows for the evolution of a new way of responding to people's needs while respecting urban regulations and keeping development in lines with broader economic development strategies.

In the following section, I further elaborate about the built environment of Old Havana. Later, I describe my research methodology. Then, I discuss the inter-disciplinary literature on hybridization, arguing that it is a useful concept for understanding how new urban development approaches are evolving in Cuba and in the developing world at large. Third, I discuss the findings of the fieldwork. This section discusses the informal practices partaken by residents of the *solares*, the authority-driven top-down approach to the redevelopment of Old Havana, and the limited, yet significant, number of residents who have renovated their homes employing the services of the Community Architect Office of Old Havana. In the discussion section, I look at the development of the Community Architect Program and how it fits into the theory of hybridization. I argue that hybrid building practices are not limited to Old Havana or Cuba, but

are present in projects seeking to upgrade the built environment inhabited by low-income residents of the developing world over. Finally, the paper concludes with a reflection on the conceptual significance of 'hybridity' for building strategies seeking to rehabilitate the habitat of low-income residents in the developing world and bypass the traditionally-held dichotomy between formal and informal practices.

Havana and its Built Environment after the Revolution

Following the revolution of 1959, real estate activities had been stopped in Havana. Unlike in other capital cities of Latin America, the demolition and destruction of heritage buildings did not take place in Havana. By suppressing speculation and the real estate business, a large portion of the traditional built environment of Old Havana was saved. Further, the country's socialist development model encouraged the suppression of middle and upper classes values and lifestyles, leading to a much smaller number of cars in the streets. As a result, the city's urban fabric was not disrupted in order to accommodate private vehicular traffic in the way that occurred in other Latin American cities. Old Havana remained free of highways and parking lots.

However, while many renowned buildings were saved from demolition, other forces, such as constant migration from the countryside towards urban centers and the population's chronic poverty, contributed to the decay of Old Havana. The built environment of Old Havana suffered from deterioration and lacking maintenance, many buildings begun to collapse. While ancient buildings and monuments were protected from the destructiveness of the modern capitalist development, these same buildings deteriorated with the passage of time and lack of investment. Old Havana preserved its shape and character but decayed to the point that it offered a little quality of life to its residents. It has been estimated that at least 50% of the population of Old

Havana occupy substandard housing, such as *solares* built in marginal and residual spaces (Massin and Kercam, 2004; Plan Maestro, 2010).

Living conditions in Old Havana reached their worst in the early 1990s during the Special Period. At this moment, Cuba lost trade partners in the socialist economies of Eastern Europe. The economy shrunk, stores were empty and thousands in Old Havana found themselves jobless. Furthermore, low-income residents started invading vacant buildings and transforming them into housing. The Office of the Historian recognizes that the homeless have occupied warehouses and other vacated structures throughout Old Havana.

Although, Old Havana remains a World Heritage Site that attracts hundreds of thousands of tourists every year and governmental agencies have sought to regulate all construction activities within it, the reality is that 80% of its housing units have been modified by their occupants following informal patterns (Plan Maestro, 2010). One of the most popular structural interventions is to add sleeping spaces through the construction of mezzanines or *barbacoas,* as locals call them. A census conducted in 1995 found that 60% of the residents of Old Havana had constructed a *barbacoa*. The construction of *barbacoas* is an example of the informal strategies used by low-income residents to transform their immediate built environment.

Residents who are not lucky enough to have a job in the tourist industry remain at the margins of the system. Roughly 80% of the population lives on less than two US dollars a day. While many would likely abandon their jobs and opt to beg for charity from tourists, such practices have been forbidden by the State. Authorities have implemented a surveillance system preventing locals from approaching tourists. In Old Havana, if a local resident is witnessed talking to a tourist they may be thrown into jail under a charge of harassment.

Today Old Havana contains 22,500 housing units and restoration efforts have renovated roughly 20% of the built environment (Massin and Kercam, 2004). The contrast between areas that have been renovated and those that have not is similar to the contrast between the developing and the developed world. Two different systems coexist in one district. On the one hand, there are the hotels, restaurants and boutiques that have been carefully designed to provide a world-class consumption experience; on the other, there are hundreds of *solares* providing low-quality housing for the masses.

Methodology

This paper draws on qualitative research conducted in Havana, Cuba over 2013 and 2014. The research was made possible by a doctoral award from *Fonds de Recherche du Québec Société et Culture*. The research revolved around the following questions: How do building systems evolve by exchanging and borrowing elements from each other? What approaches are being used to redevelop the built environment of Old Havana? What are residents' strategies for adapting their living environments?

The objectives of the research were: (a) to document the different development strategies or systems as they have evolved in Old Havana, (b) to identify the elements of different building systems in order to classify and understand them, (c) to identify the different practices employed by residents and authorities to develop the built environment in Old Havana, (d) and, to describe and analyze the evolution of a 'third' 'hybrid' building system in Old Havana.

During fieldwork, data regarding the strategies used to reproduce the built environment were collected through in-depth interviews. Relying on a local woman's social connections, I was able to find the first participants for the research. Following a 'snowballing' technique, I continued to search for and identify potential research participants and suspended the search once I had reached a saturation point. In total, 58 residents agreed to participate in the research. I

also interviewed officers, architects and planners working for the different agencies responsible for determining the policies that regulate the development of Old Havana's built environment. The interviews were semi-structured. I came up with a list of topics I wanted to discuss with the interviewees and asked questions that introduced these topics into conversation. Additional data were collected through visual observation of public and semi-public spaces. Finally, I collected secondary data by examining policy documents and plans available at the document center of the Office of the Historian.

The Concept of Hybridity

For a long time, those seeking to conceptualize the development of built urban environments of the developing world have embraced the idea that development can either be formal or informal in type (Nijman, 2010; Wekesa, Steyn and Otieno, 2011, UN-Habitat, 2003). In this dichotomy, the tension between formal and informal is undeniable. Conceptualized as the opposite of formality, informality has been broadly cast in terms of practices trespassing property rights and urban regulations (Alsayyad, 2004). However, recent studies suggest that informality may not be at the other end of the spectrum of formality. We are starting to pay attention to the fact that a new generation of urban management and redevelopment strategies are located between the poles of formal and informal. A closer look at processes on the ground reveals the development of a 'third' way; one in which elements of both the formal and the informal are mixed together. This third way is a hybrid system. Literature from diverse fields sheds light on the meaning of hybridity and its potential usefulness in understanding Old Havana's building systems. This interdisciplinary literature also directs our attention to particular issues associated with hybridity – namely, the blurring of boundaries, authenticity and diverse forms of cultural, social, economic and political expressions.

The concept of hybridity was first developed in biology. It was used to refer to the offspring of individuals of different kinds (Stockhammer, 2012; Sanchez-Stockhammer, 2012, Mitra, 2012; Fludernik, 1998). Mitra (2012) conceptualizes hybridity as a way to set forward a 'third' outcome that overcomes binary opposites by borrowing elements from both. The concept of hybridity seems similar to the structure of the dialectic in Marxist theory, in which the summation of a thesis and an antithesis leads to a synthesis.

In the last two decades, hybridity has been used as a metaphor to describe the mixing of systems in politics (Shin, 2015; Mitra, 2012), language (Sanchez-Stockhammer, 2012), music (Nayef, 2010), management (Kwok-Bun, 2010), food (Stockhammer, 2012), religion (Stockhammer, 2012) and architecture (Mitra, 2012; Ute Verstegen, 2012). Hybrid systems have been theorized in different disciplines in order to understand social, political, cultural and artistic trends that combine elements belonging to two different 'pure' systems (Kwok Bun and Peverelli, 2010; Chan, 2002). According to Chan (2002), hybridization occurs when people with different cultural backgrounds interact and are willing to 'let go' and open up to other possibilities. This 'letting go' has been found to be a key step in establishing more positive attitudes towards the 'other.' Carrillo (1999) found that hybridization leads to increased tolerance towards difference. This tolerance can be seen as the product of exposure to different cultures and ways of life (Carrillo, 1999). Kwow-Bun and Peverelli (2010) also believe that hybridity emerges when actors from different systems come into contact with one another. Similarly, De Toro (2006) defines hybridity as the complex mixing of cultures, religions, and ethnicities, all while recognizing and negotiating their differences in a common territory. While hybridity is not new and human societies have been hybridizing for as long as different cultures have been in contact with each other through migration or colonization (Stockhammer, 2012), globalization

has accelerated it as a phenomenon (Kwok-Bun 2007). Notably, hybridization seems to have transformed the cultural patterns of global metropolises, such is the case of Hong Kong discussed by Kwok-bun (2007). Due to globalization people from different countries are being exposed to the same global political ideologies. The result of this exposure is the development of similar political attitudes across borders and the erosion of national meta-narratives (Garcia-Canclini, 1989). Of course, in a globalized world the idea that there are cultures that remain 'pure' is highly problematic. The liberalization of the world – with its reduction of controls on imports, capital and foreign exchange to allow more goods, services and money to flow across national borders (Gilbert, 2004) – has resulted in increasing cultural, political and social exchange. Developed nations seemingly ascribe to the belief that economic exchanges will result in the embrace of democracy on the part of developing countries (Gilbert, 2004).

Hybridity has also been identified as a threat to 'authenticity.' As people across the globe adopt mass-produced artefacts and mix them with their own cultures, the end of 'pure' cultures seems inevitable (Kwok-Bun, 2007). The development of hybrid systems propelled by globalization has led scholars to consider the possibility of a deterritorialization – the loss of tight ties between a culture and a specific geographic site (Garcia Canclini, 1995).

Indeed, as a process, hybridity involves the blurring of borders between different systems (Debadutta, 2015; Jay, 2013). Stockhammer (2012) describes the development of a hybrid cultural system along the Mexico-US border. It has been noted that since they cannot be completely controlled, borders not only separate but also connect people with different backgrounds (In Stockhammer, 2012; Donnan and Haller, 2000; Donnan and Wilson, 2001).

As early as 1950, the concept of hybridity was used to refer to "the crossing" of people of different races (Ackerman, 2012). Notably, this interracial notion of hybridity fits well when

describing the populations of Cuba and the rest of Latin America, where people of different races have been procreating for the last 500 years. Even further, Ackerman (2012) raises the question of whether 'pure' cultures ever existed, either today or in the past. The answer to this question is complicated. It has been argued that some sort of 'original' cultures did exist in the form of homogeneous groups of people bearing shared racial makeups, values, languages, and beliefs (Ackerman, 2012). Throughout Cuba's history, Indigenous, African and Spanish peoples coexisted in a system that, while tainted with injustice and inequality, produced cultural forms mixing elements from different cultural backgrounds. A case in point is the development of *Santeria,* a religious practice combining elements of both African beliefs and European Catholicism. By 1980, the Cuban cultural landscape had reached a degree of homogeneity or 'authenticity' that was identifiable in consumption patterns, political institutions and in the country's cultural output. For example, musical styles such as *son*, *bolero* or *salsa*, all "blends" or "hybrids" rooted in a specific time and place, are among the most representative manifestations of Cuban culture.

Similarly, and of particular relevance for the argument of this article, is the notion that hybridization does not exclusively relate to cultural artefacts and values, but also develops operationally, such as in organizations seeking to fulfil a social or an environmental mission (Billis, 2010; Conforth and Spear, 2010; Aiken, 2010; Mullins and Pawson, 2010; Lewis, 2010). According to Billis (2010), the distinctions between organizations and the services they provide to communities are disappearing. Hybridization arrives with new forms of institutional governance, blurring the borders that used to separate public and private organizations and civil society at large. Furthermore, institutional hybridization is the product of new professional desires to not only seek out a paycheck but a sense of purpose in one's work (Lewis, 2010).

Professionals working in hybrid organizations in Cuba and elsewhere have developed a distinctive identity and the sense that through their work they are giving something back to the community (Lewis, 2010).

Hybridity is also present in politics. Mitra (2012) argues that governance in India has been facilitated through the development of hybrid arrangements in which traditional modes of authority are mixed with a larger democratic system. Critical theorists view such syncretism in political institutions and organizations positively (Fludernik, 1998). In this sense, hybridization is the natural result of processes of institution-making that adopt foreign approaches within a native medium (Mitra, 2012).

This pattern of hybrid adoption was followed when welfare begun to be provided to Cuban citizens in the 1990s, thereby creating a new sense of a Cuban civil society. Further, the view that residents should be enabled to make choices when it comes to the design of their homes, apartments and wider urban habitat partaken by the group Habitat Cuba has been advocated by liberal architects and planners for a long time (Alexander, Ishikawa, and Silverstein, 1977; Turner; 1976; Choguill, 1996; Habraken, 1972). In the case of Habitat Cuba, they borrowed Argentinian architect Rodolfo Livignston's method for enabling residents to participate in design processes. In other words, the organization picked up an alien concept and inserted it into their native milieu. However, the notion that residents should be enabled to make decisions regarding the configuration of their living environments had to be adapted to the particularities of the Cuban context. Notably, this meant that people's decisions about the design of their homes had to be balanced with existing building codes and land use regulations. As a result, the model pursued by Habitat Cuba combined elements of both the bottom-up approach, in which individual residents make self-directed choices concerning the design of their homes, and the

top-down approach through which urban regulations are established. In the following section, I describe how the hybrid building system promoted by Habitat Cuba came to be.

The Three Building Systems in Old Havana

Extensive fieldwork, in-depth interviews with residents, officers and architects and direct observations offer evidence of the coexistence of three different building systems in Old Havana. These are: bottom-up (System A), top-down (System B), and hybrid (System C). Table 3.1 summarizes the defining characteristics of each.

Table 3.1: Building Systems in Old Havana

System A – *The solares*	- Resident-driven decisions about design - Non-compliance with urban regulations - Labored through sweat equity - Use of non-permanent building materials - Step by step financing
System B – Renovated Old Havana	- Expert-driven decisions about design - Full compliance with urban regulations - Contracting of professional labourers - Use of permanent materials - Financed through a central banking system
System C – Hybrid	- Decisions on design made jointly by architects and residents - Compliance with existing urban regulations - Contracting of professional labourers - Use of permanent materials - Step by step financing

Systems A – Informal Bottom-up Adaptations to the Built Environment

System A, the bottom-up model underpinning most of the built environment in Old Havana, is an informal approach to urban redevelopment (see Fig 3.2). This development system largely

produces *solares*, housing compounds built through a myriad of independent actions led by residents. The *solares* originated as former mansions that were transformed in order to house workers, particularly those linked to port activities (Menendez Garcia, 2004). In the post-colonial period, *solares* reflected the desire of owners and politician to develop more profitable uses of the urban land. Upper classes migrated to suburban communities such as Vedado; Old Havana increasingly became occupied by low-income residents living in basic units. The development of *solares* has always been associated with deterioration and subdivision of aging multi-storey residential buildings as well as *ad hoc* extension of those buildings into spaces not previous built (e.g., additional storeys, verandas and patios). Cuban *solares* have proliferated as a result of the scant resources low-income residents possess. The configuration of the different housing units in a *solar* are variable and depend upon decisions made by the residents. Generally speaking, the interventions leading to the development of *solares* violate the urban regulations of Old Havana. While the establishment of *solares* in Old Havana is tolerated, their growth is not seen favorably by authorities seeking to make Old Havana into a district for global consumption. *Solares* are dark; most of their housing units lack ventilation and natural lighting. Their layouts are unwelcoming to visitors. Often *solares* comprise a maze of hallways, patios and corridors. Visitors would not typically gain access to them without the guidance of a local resident.

Figure 3.2: Informal adaptations by a family squatting in a warehouse

Evidence collected during fieldwork indicates that *solares* suffer from substandard access to water. The residents of a *solar* often depend on one or two public access points to water and must use buckets to collect it. Elderly residents depend upon the good will of neighbors to carry water to their units. It could be argued that the development of *solares* has parallels with other forms of substandard housing in the inner cities of Latin America. Notably, the *vecindades* of Mexican cities and the *tugurios* of Lima.

Residents of *solares* also suffer from poor access to sanitation. It is common for several units in a *solar* to share one toilet. Residents often have to urinate and defecate in substandard receptacles and dispose of their waste in ways that are perilous to their health. Residents of *solares* often use non-permanent materials when installing interiors walls or subdivisions in their units. People living in *solares* lack privacy when sleeping and there is evidence that

overcrowding is often so bad that residents must take turns to sleep. It is not uncommon for a multigenerational family to share one room.

The informal character of *solares* in Old Havana is not limited to the structural aspects of apartments; residents are equally abandoning jobs in formal government-run building enterprises and joining informal ventures. For example, many local youth are engaging in *jineterismo,* the practice of exchanging money and gifts with foreign visitors. *Jineterismo* is the equal product of visitors' desires to get "under the skin" of Old Havana and locals' taste for the purchasing power of tourists arriving from developed countries.

Despite their low-quality, *solares* are successful in that they provide residents access to companionship and support from peers. A *solar* is a social and cultural unit. It is common for neighbors living in a *solar* to gather for weekly religious parties revolving around *santeria*. These parties are an expression of traditional Cuban culture and events that allow neighbors to maintain and develop social ties and support.

System B: State-led Redevelopment of the Heritage Quarter

System B, which is characterized by a top-down approach to decision-making, is the system through which authorities have engaged in the progressive redevelopment of Old Havana. Decisions concerning the use and configuration of buildings are made by a group of architects-planners-engineers-experts employed by the *Oficina del Historiador de la Habana*.

The renovation of Old Havana, while slow, has been successful. Businesses have expanded every year. For example, the number of hotel rooms grew from 4682 in 1988 to 12,002 in 2002. Between 1994 and 2008, Havana's tourist industry brought in $420 million US dollars (Plan Maestro, 2012). The Central Bank of Cuba largely provided the investments needed to develop the city's tourist infrastructure after the redevelopment of Old Havana was identified as a priority by the Cuban State.

Cuban authorities have attempted to produce an 'authentic' experience of Cuba through the display of art and music in various venues across the historic district. Notably, some 20 world-class bands play traditional songs in bars and cafes across Old Havana. Additionally, plazas and pedestrian streets are decorated with public art including fountains and sculptures (see Fig. 3.3). Street artists also use this pedestrian network as a stage. Dancers and percussionists perform in these spaces, trying to catch the attention of tourists and collect tips.

Figure 3.3: Public art in a redeveloped plaza

Redevelopment plans for buildings and plazas are conducted in an architects' studio attached to the Office of the Historian of Old Havana. Generally, architects have sought to redevelop the built environment in a way that makes it look old. According to Plan Maestro (2012), 31% of the buildings in Old Havana were built between the 16th and 19th centuries. Over 50% of the buildings were constructed during the first half of the 20th century.

While the reproduction of an 'authentic' Caribbean city able to attract visitors and investments is a priority for the island's government, top officials have striven to prevent the mixing of Cubans with tourists from the West. The government created a second currency paired to the American dollar that is uniquely used by tourists who frequent the stylish restaurant and bars in the parts of Old Havana that have been renovated. A surveillance system has been put in

place in Old Havana in order to keep locals away from visitors. At any time, a local witnessed interacting with a tourist may be arrested on a charge of harassment. In many ways. The goal of the redevelopment of Old Havana has been to recreate an 'authentic' Caribbean city while keeping tourist separate from Cubans.

The separation and growth create tensions. As more space becomes needed in order to accommodate a growth in tourism, an increasing insecurity is introduced into the lives of residents who lack formal ownership of their dwellings. Many low-income residents believe that the renovation of Old Havana will eventually push them out of the historic district. While authorities have committed to preserving the residential character of the historic district, several residents, including some journalists, have commented off the record that there is evidence of people being displaced to new dwellings along periphery of Havana.

System C: Hybrid Co-production through the Community Architect Approach to Household Renovation

Building System C, the hybrid system, first emerged in Cuba after the collapse of the Soviet Union. It was introduced through the Community Architect Program, a nationwide initiative assisting people with the design of their homes. This system is hybrid in nature because it borrows elements from the formal and informal building systems described above. Like in System A, residents are encouraged to make their own decisions about the design and configuration of their apartments; however, like in System B, design solutions must comply with the stringent urban regulations that are in place in Old Havana. Along these lines, the 'hybrid' system blurs the borders between building systems A and B and creates a 'third' way of producing the built environment. Community architects are professionals who aid ordinary people in developing their own design plans in lieu of implementing a dictated solution. When a

citizen requests the help of a community architect, the resident is provided with choices in an interactive exchange. The goal is to give residents some control over the configuration of the space they inhabit (see Fig. 3.4).

Figure 3.4: House renovation design by residents and community architects

An examination of projects completed by the Community Architect Office of Old Havana suggests that residents are most successful in renovating their apartments when they aim to add sleeping space that may be used to host tourists. In the last decade, guesthouses have proliferated in Old Havana. They have become popular among tourists seeking an affordable way of visiting the city; a visitor staying in a guesthouse may pay as little as twenty dollars per night.

Guesthouses in Old Havana are both a product of a 'hybrid' building system and a site for further social hybridity; they foster interaction between people belonging to different cultural and social backgrounds, thereby promoting hybridization in the Cuban cultural landscape.

Hybridity in a Building System: The Importance of Expert and Resident Voices

The evidence presented above supports the existence of a 'third' 'hybrid' building system in Old Havana (see Fig. 3.5). Through the borrowing and mixing of elements that characterized what I identified as Building System A and Building System B and the blurring of the borders

between these systems, a new way of producing the built environment has emerged. Although hybridity has held negative connotations in the past (Ackerman, 2012), more recently it has been associated with the development of creative solutions (Lewis, 2010). Residents with upper and middle incomes are requesting the services of the Community Architect Office of Old Havana, as they seeking to transform their homes into guesthouses. They have expressed high degrees of

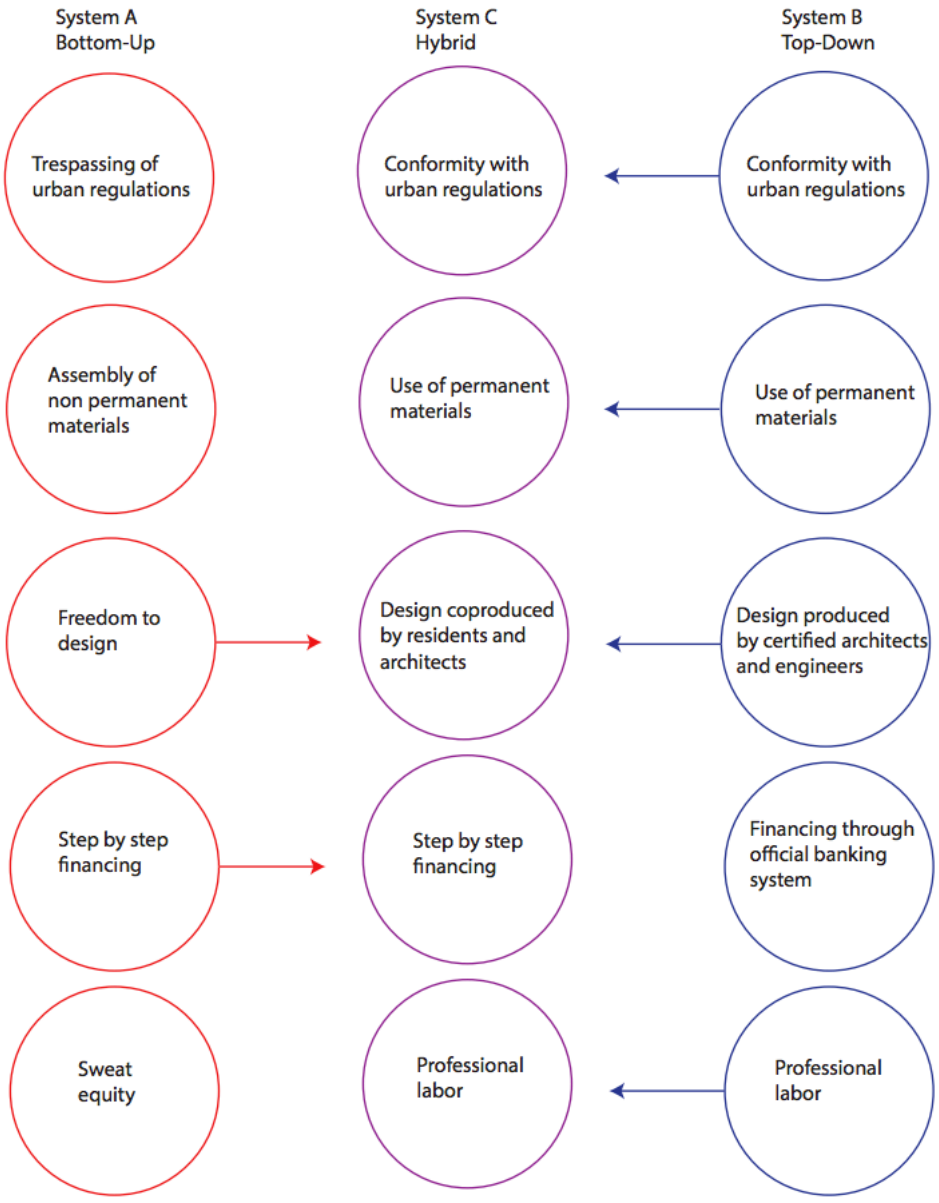

Figure 3.5: Comparison of the different elements of the building systems

satisfaction with both the outcome – a more beautiful and comfortable place to live – and the process – architects who helped them understand home design principles as well as their own spatial needs. The 'hybrid' building system in Old Havana reflects theories advocating for the participation of residents in the configuration of the built environment (Choguill, 1996; Alexander, Ishikawa and Silverstein, 1977; Turner, 1976; Habraken, 1972). However, the hybrid building system also reflects an 'official' redevelopment vision of Old Havana. This connection is expressed in the conformity of home designs and the stringent urban regulations that control the shape and function of buildings in Old Havana. Indeed, residents commented that only with the help of Community Architects were they able to understand the legal aspects associated with the transformation of their houses. This is, in part, explained by the way in which community architects approach the process of co-designing a house with the participation of residents. As detailed in Chapter 5, community architects prepare different design proposals and use various tools to help their clients visualize them. During the process, community architects explain what urban permit for the specific unit, and design in accordance with those limits.

In the 'hybrid' building system residents are allowed to make their own choices. However, these choices may not trespass rules already set in place, which occurs in informal development systems system (Alsayyad, 2004; Dovey, 2012). At the heart of the 'hybrid' building system is the blueprint. Alexander, Neis and Moore (2012, p. 51) argue that since their inception 200 years ago, blueprints have served as key tools through which architects-planners-engineers-experts have accumulated the power to make decisions related to the configuration of the built environment. In the 'hybrid' system, blueprints are more than a set of instructions for carrying out construction. Rather, they become a visualization tool used to communicate ideas between

architects and residents. Design plans are developed between architects and residents, all while following a detailed method that is described in Chapter 5. Here again, the work of the community architects of Cuba may be an example of new practices that are spreading across the world. The participatory method used by community architects is an example of a 'hybrid' building system.

The case of the Community Architect Program suggests that the best planning outcomes are achieved within systems that integrate residents' opinions with ideas envisioned by professional architects and planners. While no one disputes the need to support residents who participate in the shaping of the built environment, development schemes which give full control to citizens neglect the fact that professional architects, planners and construction workers have an important role to play in the development of sounder urban development strategies. This said, the influential ladder of citizens' participation (Choguill, 1996) identifies decision-making processes that offer citizens full control as the most desirable planning outcome in developing countries. The case of Old Havana makes evident the need for compelling visions and comprehensive plans when redeveloping metropolitan areas and their districts. Perhaps the greatest challenge for contemporary planning is to establish frameworks in which residents' rights to make choices and the development of sound revitalization strategies are balanced. 'Hybrid' building systems offer the possibility to synthetize citizen participation and 'grand' revitalization strategies.

Conclusion

Roy (2005) contends that planning and architecture must move away from the juxtaposition of formal and informal strategies, acknowledging that other ways of producing the built environment are possible. In the case of Old Havana, the 'imagined' dichotomy goes beyond the formal and the informal. In Old Havana, the relationship of building systems A and B reflects the

tension between the modern and the traditional as well as the affluent and the poor. It also embodies the relationship between capitalism and socialism (Uriarte, 2008).

While the set of political circumstances that allowed the development of a 'hybrid' building system in Cuba is in many ways unique – specifically in its links to the emergence of a new civil society seeking ways to provide welfare for Cubans (Gray and Kapcia, 2008; Uriarte, 2008; Gray, 2008) – the participation-in-design approach developed in Cuba could be implemented in other cities of the developing world.

Furthermore, the crisis faced by Cuba in the 1990s created fertile ground for experimenting with new ways of providing social services to citizens. The building system developed by the Community Architect Program is not the only example of a hybrid system in place in Cuba. Other programs seeking to bolster residents' participation in the management of the built environment appeared after the fall of the Soviet Union, a notable example of which is *Talleres de Desarrollo Integral del Barrio* (Ramirez, 2005; Uriarte, 2008). Through the support of international aid agencies, *Talleres* engaged in projects including school repairs, reforestation campaigns and cultural and social programs focusing on the most at-risk sectors of the population (Sinclair, 2000). *Talleres,* much like the Community Architect Program, was seen as an organization complementing the work of the State. Dilla-Alfonso, Fernandez and Castro (1998) have referred to the development of these new 'hybrid' initiatives as "*el poder popular actuando de forma diferente"*: the popular power acting in a different way.

Finally, it must be noted that 'hybrid' building and planning systems are not exclusive to Old Havana or Cuba. Across the developing world there are signs that policy-makers are promoting more sensitive approaches towards the management of informal settlements (Roy, 2005). Programs that experiment with upgrading informal settlements, as opposed to bulldozing them,

may be other forms of experimenting with hybridity. Lessons from Cuba's experience with the Community Architect programme in this sense direct attention to the need for hybrid approaches that find a balance between design 'for and by residents' and adherence to official regulations and plans.

In summary, in the last decades, a 'hybrid' system for the development of the built environment has emerged in Old Havana. This system combines elements of both the formal and the informal systems through which the built environment has been traditionally produced. The hybrid system offers residents the possibility of making decisions regarding the configuration of their homes while respecting already-established urban regulations. Keeping in mind the idea of the 'hybrid,' I argue that a reconceptualization of efforts seeking to upgrade the built environment is in order. Specifically, I argue that we must go beyond the existing dichotomy of formal and informal that has prevailed within scholarly conceptions of the development of the built environment in the cities of the developing world. I argue that we must instead embrace the emergent 'hybrid' forms of managing such development. 'Hybrid' systems allow residents to participate in the decision-making process concerning how their built environment will be configured, all while allowing city officials to implement ambitious redevelopment strategies in their jurisdictions.

Efforts to rehabilitate Old Havana have been described as "using capitalism to save socialism" (Taylor, 2009, p. 113; Taylor and McGlynn, 2009). In this sense, it is pertinent we question whether 'hybrid' building systems may also be synthetizing capitalism with socialism.

Bridge: Where Should We Live?

During the second half of the 20th Century, authorities in cities of the developing world responded to housing shortages by turning to mass-industrialized housing developments. While, for different reasons, migration from the countryside towards urban centers was much less accentuated in Cuba compared to other developing countries, the government of the island equally invested in standardized-mass housing estates (Scarpaci, Segre and Coyula, 2002). Many people questioned whether these modern mass-housing estates were appropriate in supporting the lives of their low-income occupants (El-Marsi and Kellett, 2001). The issues surrounding housing provision were both qualitative and quantitative in nature. In general, urban planning in developing countries has failed to cope with the demand of housing and services (UN-Habitat, 2003). Formally planned areas in cities of the developing world are only able to provide shelter and other services to those who can pay for them. As a result, middle- and upper-class neighborhoods remain out the reach for low-income residents.

Mass-produced housing – the alternative thought a viable answer to this crisis during the second half of the 20th century – has failed to provide an environment in which low-income residents thrive. Such mass-produced environments have been found to neglect the sociocultural needs of populations, alienating and isolating residents who find themselves far away from income-generating opportunities (Alexander and Center for Environmental Structure, 2002). Mass-produced housing estates in Cuba are no exception.

Past literature on housing provision suggests that governments failed to produced enough housing and also that housing produced has not been qualitatively good enough to meet a basic standard of living. As a solution to these issues, low-income residents of cities across the developing world have begun engaging in informal housing development using the limited

means available to them. In certain regions, these informal settlements have progressively improved over time, providing environments in which low-income households have been able to thrive.

Nonetheless, the proliferation of informal settlements is viewed in diverse ways. Many see such settlements as a fundamental failure of society to provide a basic right – that of adequate shelter – to people (United Nations, 2015; UN-Habitat, 2002; Davis, 2006); they stress the presence of environmental risk and violence, the lack of basic services, and the resulting losses to residents in terms of opportunities for education, livelihoods, and healthy long lives. Others highlight the vibrancy of life in informal settlements, and celebrate the solidarity, circular economies, and resiliency present in such environments (Huchzermeyer, 2011). Certainly one aspect of the debate is that living in an informal settlement is perceived to be unappealing according to middle and upper class urban imaginaries. Informal settlements are believed to be unsafe and unhealthy. Early research studying the living conditions of informal settlement argued these environments were incubators of a culture of poverty. Such studies stated that in the absence of positive middle-class role models, younger residents would become violent and seek out lives of crime. Even today, literature argues that a link exists between violence, machismo and slums (Penglase, 2014). However, a more critical lens on these informal settlements reveals that their external perception often depends on the internal state of development, location and local culture, among many other factors.

For a very long time, governments have identified the presence of informal settlements has been identified as an undesirable aspect of cities of the developing world. At worst, they have been perceived as a threat to the order and progress of modern society and an element that must be eradicated through the use of force. Indeed, many cities in both the developed and the

developing world have razed informal settlements, replacing them with urban developments oriented towards the generation of business and profits. These have equally been replaced by mass-produced housing estates, developments that are commonly associated with ugliness and a lack of safety even as experts consider them to be radiant towers in the park. Even in developed countries, mass-produced housing compounds have been the subject of different waves of interventions. Lacking the natural surveillance that characterizes the traditional city, mass housing becomes unsafe. Further, their occupation of a large single-use plot of land often means that services and amenities are far away from the reach of pedestrians. In a developing country like Mexico, it has been estimated that almost 25% of the units that are mass-produced remain abandoned, creating an environment where crime and vandalism thrive (Herbert, Belsky, and DuBroff, 2012).

Therefore, it is pertinent to question what viable alternatives exist for low-income residents who can barely pay modest rents and who find themselves struggling to find work. In many ways, the solution to this question has evolved over time. In both Latin America and North Africa, previously dangerous districts featuring houses made out of cardboard and other non-permanent materials lacking services like clean water, electricity or drainage have slowly evolved into hospitable environments offering basic amenities and safe, soundly-built structures. The government of Cuba addressed the issues of the informal settlements relatively early in comparison to other developing nations.

Like in other successful cases of adaptation over time, improved districts in Cuba integrate residential and commercial uses. This means that job opportunities, as well as services and transport, are much closer. In other words, the improved informal settlements of Latin America and the Mediterranean basin seem to offer a much higher quality of life than before. This

improvement is in part because the physical redevelopment of dwellings has been done with insight into the social needs and structures of its inhabitants. When the evolution of informal settlements has not been disrupted by forced mass-evictions or the movement towards sterile mass housing, a complex social fabric has been allowed to mature.

These experiences in Latin America and North Africa indicate that informal settlements may not be as bad as policymakers and international agencies have made them out to be. To this end, we need to highlight the necessity to further investigate the perceptions and sentiments of those living in informal housing developments. Fortunately, over the past three decades the field of urban studies has developed the tools needed to evaluate the performance of different kinds of dwellings and neighborhoods. These tools are oriented towards assessing degrees of residential satisfaction. The results of a satisfaction survey may be used to draft new policies and must be considered during urban planning decision-making processes. I believe that increasing residential satisfaction should be the ultimate goal of housing policy. When an individual responds to an inquiry about their degree of residential satisfaction, she or he provides a global response taking into account the physical, social, cultural and financial.

In the following article, I allow residents to speak for themselves on their built and social environments in Old Havana. In particular, the objective of the research was to reveal how rapid neighborhood change, propelled by the restoration of Old Havana, has impacted residents' experience of residential satisfaction. Examining their responses, a distinct pattern emerges: the higher the level of cultural capital they possess, the greater the likelihood residents will positively perceive the changes unfolding in Old Havana and vice-versa.

Chapter 4:

Residential Satisfaction in Old Havana: Perceptions of Neighborhood Trajectory

Abstract

This article examines residential satisfaction within the context of rapid neighborhood change. Addressing the case of Old Havana, a district in which authorities have sought to attract tourism through an ambitious redevelopment project, this article analyzes residents' satisfaction and the way in which their perceptions of the rapid changes occurring in the neighborhood affects that satisfaction. The research makes use of a qualitative approach in measuring residents' feelings and degrees of attachment towards their living environments. While I inquire into residential satisfaction as a global construct, I emphasize the opinions held by residents on the Old Havana renovation project and examine the elements explaining their attitudes towards urban change. The analysis reveals that the neighborhood's trajectory is perceived either as an opportunity for growth or a threat to the status quo. Levels of cultural capital and skills are the variables explaining variations in perceptions. Further, residents would like to stay in Old Havana, despite the poor conditions of the built environment, citing the accessibility of Old Havana and the network of relationships built upon trust among neighbors, such factors outweigh the quality of their dwellings in their residential preferences.

Introduction

Despite Cuba's socialist development model and a decades-long economic blockade from the US, the forces of global economics have reshaped Old Havana. In a desperate campaign to

reactivate the country's economy, Cuban authorities have sought to make Old Havana a major hub for tourism.

In order to do so, a multi-million dollar project supported by international aid was initiated to comprehensively redevelop the area, reconstruct buildings, and introduce businesses such as restaurants, hotels, boutiques and bars. The project has created some 13,000 new jobs, mostly in the tourism and cultural sectors (Plan Maestro, 2010). Following three decades of operation, the project has renovated a network of pedestrian streets connecting four plazas. The reconstruction efforts, led by Eusebio Leal, the head of the Office of Historian of Old Havana, have remained sensitive to the rich architectural heritage of the historic district (see Fig. 4.1). The diverse built environment features buildings of various styles including Hispanic-Mudejar, Baroque, Neoclassical, Art Nouveau, Eclectic, Art Deco, Modern and Postmodern.

Figure 4.1: Terrace café in a redeveloped plaza

While roughly 20% of Old Havana has been rehabilitated, the rest of the historic district lies almost in ruins. Mere visual observation is enough to notice that the majority of the 3,370 buildings in Old Havana are close to collapsing due to lack of maintenance. The unauthorized, subdivision of houses and apartments has led to the proliferation of *solares*, housing compounds

containing minimal units which are often built or adapted by their own residents. In a typical *solar* several families live in overcrowded conditions, often lacking appropriate access to privacy, water and sanitation. Waste collection is another major issue in Old Havana (see Fig. 4.2). In many cases, residents lack secure tenure, as construction of housing units on patios, courtyards and rooftops violate urban regulations.

Figure 4.2: Waste rotting in containers in a corner of Old Havana

Old Havana history of urban development reflects a deep paradox. On the one hand, a suppression of upper and middle-class lifestyles means there have been fewer cars on the streets. As a result, Havana's urban fabric was not dissected by highways seeking to facilitate the flow of vehicular traffic. At the same time, while under a socialist economy the country's real estate market disappeared and Old Havana's built environment was saved from an onslaught of modern construction. On the other hand, the inhabitants of Old Havana remained poor, since sources of high-income earning almost disappeared. As a consequence, residents were unable to invest in maintaining of their buildings. With the passage of time, the built environment decayed to its presently ruinous conditions.

The decay of buildings has been well documented by officials managing the redevelopment of Old Havana. By the turn of the millennium, 1,440 buildings had been declared uninhabitable by inspectors (Oficina Nacional de Estadísticas, 2001). However, people continued to live in these spaces.

Many buildings have already collapsed, at which point their occupants typically have pursued one of two possibilities: accommodation in shelters often located in the periphery of Havana or illegal squatting in abandoned warehouses and shops in Old Havana. Professional urban planners and housing experts could argue that the displacement of residents to other areas of the city is not necessarily negative, especially if this displacement is paired with an improvement in housing quality. While this technocrat discourse in not exclusive to Cuba, the housing laws in the island and the redevelopment of Old Havana signify that displacement of residents in the historic district has a particular tone (Plan Maestro, 2010).

In summary, there seems to be an inconsistency between residents' attachment to the neighborhood and their perceptions of the changes being made to the district. I try to explain this dilemma through an in-depth ethnographical study of residential satisfaction.

In the following section, I provide a review of the literature on housing quality and residential satisfaction. This section is followed by an account of the methods I used to investigate the case study of Old Havana. In the fourth section, I present the results of the study. These results include testimonies collected among residents of Old Havana. The article continues with a discussion of the results and their significance for the investigation of residential satisfaction, especially in developing countries. Finally, the article concludes with a reflection on the quality of life of residents of historic districts and the importance of balancing tourism-driven development with the improvement of the living conditions of the population.

Residential Satisfaction and Housing Quality

Increasing residential satisfaction should be the ultimate objective of housing policy (Balestra and Sultan, 2013). Global public policy has been shaped by understandings of what determines residential satisfaction. For example, the widespread belief that homeownership increases residential satisfaction (Saunders, 1990) has influenced policymakers across the developed world. In North America, owning a home has been found to be related to higher degrees of residential satisfaction (Rohe and Stegman, 1994; Rossi and Weber, 1996) as well as increased 'self-esteem' (Rohe, et al., 2001); this is because there is a profound systemic bias favoring homeowners, meaning they are accorded a higher social status and, accordingly, buying a house gives individuals a sense of 'achievement'. A similar result was found to prevail in the Netherlands by Elsinga (1995). Indeed, it would seem that in the context of developed countries, homeownership gives residents an increased sense of achievement (Elsinga, 2005). According to Saunders (1990), people have a natural desire to own their homes. However, homeownership, as a determinant of residential satisfaction, cannot be separated from the rest of the living environment. Single-detached homes, for example, are generally linked to suburban neighborhoods. In this respect, in his seminal study, Michelson (1977) found that neighborhood characteristics are an important factor explaining households' decisions to move to the suburbs. Furthermore, different residents' decisions to live in particular environments seem to be tied to a household's stage in its life-cycle (Rossi, 1960; Michelson, 1977), suggesting that at a certain point residents will choose to buy a house as an investment. In certain countries, owning a home may provide individuals with a sense of security (Elsinga, 2005; Kemeny, 1995; Behring and Helbrecht, 2002). Indeed, researchers find a strong link between the sociodemographic profile and the residential satisfaction of urban dwellers. Income, stage in the life cycle, education,

family structure, gender and social class have all been found to be predictors of residential satisfaction (James, 2007, Bonnes et al., 1990; Cook, 1988; Fried, 1982; Miller et al., 1980).

However, the conclusions of studies enquiring into both residential satisfaction and peoples' choices of habitat are strongly determined by the geographical context of the research. For example, in countries with well-developed rental sectors people may find security without owning a home. Exploring the relationship between type of tenure and degrees of residential satisfaction in several countries, Elsinga and Hoekstra (2005) demonstrate that in countries in which politicians have supported the development of rental markets households who rent can be as satisfied with their dwellings as homeowners. In this sense, we must question the notion that people always necessarily make a choice between renting and buying when selecting their domestic habitat; rather, peoples' aspirations and preferences are embedded within a social context which imposes limits on the alternatives that available in selecting an environment (Kahrik, Leetmaa and Tammaru, 2012; Clark, 2009; Clark and Hunter, 1992; Feijten and Mulder, 2002). Indeed, it has been suggested that our living environments define much of our identity. Forrest and Kearns (2001) describe how choice of neighborhood becomes incorporated as part of our statement of our selfhood. With this in mind, we must examine the circumstances faced by low-income residents who are limited in their residential choices due to discrimination, gentrification and conversion of cheap housing into condominiums (Cook, 1998). A recent study by Grinstein-Weiss et al. (2011) suggests that we know little about the preferences and choices made by low-income residents. They argue that much of the past research examining the determinants of residential satisfaction has used random samples that over-represent middle and upper-income households (in Grinstein-Weiss et al, 2011; Herbet and Belsky, 2006; Rohe and Basolo, 1997).

Furthermore, middle and upper-class households have for a long time adopted domestic habits that are environmentally harmful. The link between low-density suburban housing and negative environmental repercussions has led researchers to recognize a dilemma inherent in suburban lifestyles. Notably, in many countries, the image of the detached suburban house with a full garden remains an entrenched cultural icon (Buys and Miller, 2012), while the option of living in a higher density setting is considered to be comparatively unappealing (Buys and Miller, 2012; Randolph, 2006; Troy, 1996). Rapoport (1977) found that in the US the suburban lifestyle is an ideal held by people of all different backgrounds and socioeconomic profiles. What people desire is often at odds with may be best for the environment. Furthermore, the prizing of suburban housing as a domestic ideal is so strong in some countries that individuals would gladly trade proximity to family and friends in exchange for a house with a big lawn and a backyard (Shlay, 1985). However, more recent research by Bruin and Cook (1997) suggests that social support in neighborhoods is an important predictor of residential satisfaction among low-income residents. As discussed below, residents of Old Havana identify social support as a factor explaining their high degrees of residential satisfaction.

In the last decades, researchers have turned their attention to the investigation of residential satisfaction in cities of the developing world. Urban metropolises in developing countries are characterized by rapid urban growth, which frequently results in housing shortages (Turkoglu, 1997). The inability of municipalities to cope with increasing demands for housing translates into the development of informal settlements. In a comparative study examining six different environmental variables in Istanbul, Turkoglu (1997) concluded that residents of formally planned districts experience a higher degree of residential satisfaction than those who live in informally zoned settings. In a qualitative study conducted in Nairobi, Mudege and Zulu (2011)

evaluated residential satisfaction among recent migrants to the city. They concluded that the living condition of migrants' places of origin was a key determinant explaining their degrees of satisfaction with their new, informal settlements. Looking at the case of Selangor, Malaya, Mohit and Nazyddah (2011) discuss the ways in which different dimensions of domestic experience interact in defining residents' degrees of residential satisfaction. They conclude that the physical qualities of the dwelling only partially explain the level of residential satisfaction. Other elements such as social networks and supports attached to housing are relevant in developing a comprehensive definition of residential satisfaction (see Fig. 4.3).

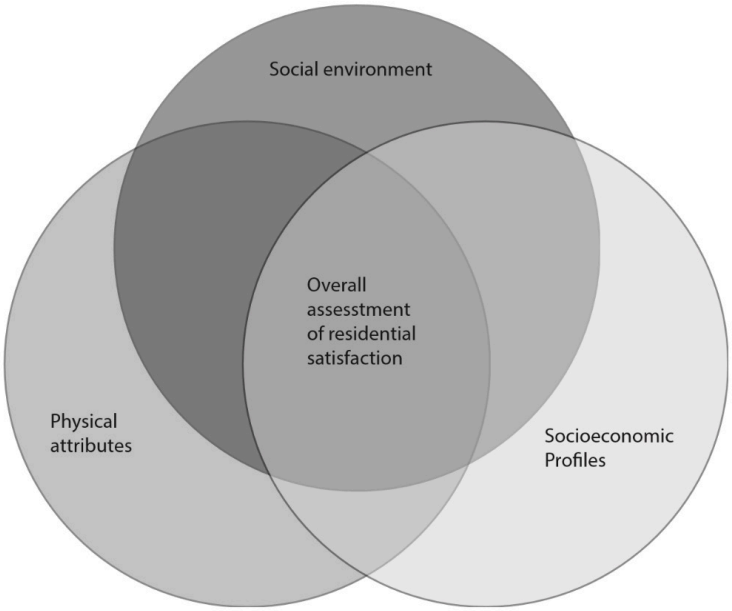

Figure 4.3: Determinants of residential satisfaction

In an earlier study, Mohit, Ibrahim, and Rashid (2010) found that the socioeconomic profiles of individual residents are as critical in determining residential satisfaction, as are the physical attributes of housing units. On the contrary, a study comparing the levels of residential satisfaction held by low-income and middle-income residents in Lagos, Nigeria found that physical characteristics of dwellings were the most important factor explaining residential satisfaction (Ilesanmi, 2010). A study undertaken by Fang (2006) in Beijing suggests that the

choice to move and its association with a lower level of residential satisfaction differs between developed and developing countries. In the context of Beijing, he argues that low levels of residential satisfaction do translate into moving to a different neighborhood. However, his study suggests that residents of cities in the developing world have less choice than their counterparts in developed countries and that there are a limited number of dwellings and neighborhoods they can afford. Looking at residents of mass-housing estates in Istanbul, Berkoz, Turk and Kellekci (2009) conclude that accessibility to different amenities, environmental features of housing units, environmental security, relationship with the neighborhood and the aesthetics of the urban landscape are the strongest predictors of residential satisfaction. Another study conducted in Beijing by Zhang and Lu (2015) compared levels of residential satisfaction held by dwellers of traditional Chinese housing and new redeveloped areas. Their findings support the notion that vernacular architecture better supports the development of social networks among residents. Wang and Wang (2016) examine the relationship between the number of activities that a housing complex or a neighborhood offers and the degree of 'affection' residents exhibit towards their environment. They discovered that the greater the number of activities supported, the more affection residents will develop towards their habitats. Alexander et al (1977), in their seminal study of Lima, concluded that the physical features of a community should reflect the social and cultural structure of a community. In summary, the literature suggests the prevalence of three clusters of determinants of residential satisfaction: the physical attributes of the dwelling and the environment, socioeconomic profiles and the strength of social networks.

Given the difficulty in assessing satisfaction, the question of how people perceive and experience neighborhoods is central. Feldman (1996) examines in detail how people develop psychological bonds with their neighborhoods. In particular, he is concerned with North

Americans who are portrayed as being increasingly rootless and living in increasingly placeless landscapes. However, numerous observers suggest that North Americans are not aimlessly wandering through urban landscapes; rather, their decisions to move to new residential locations are the result of thoughtful considerations (in Feldman, 1996; Butler et al., 1969; Michelson, 1977; Stokols and Schumaker, 1982). Here again, it is opportune to question how much choice people have in selecting a living environment. This question seems to be connected to the results of research cited above that links residential satisfaction to sociodemographic status. Income, stage in the life cycle, education, family structure, gender and social class may be mediated by choice in their shaping of residential satisfaction. have all been found to be predictors of residential satisfaction.

The belief that low-density suburbs lead to increased residential satisfaction and provide a higher quality of living has led politicians to take action against higher-density and lower income districts. In the context of developing nations, Huchzermeyer (2011) describes how governments are waging a 'war' against slums. She argues that while slums may be associated with a poor quality of life, they equally provide residents with a sense of belonging and strong social support from peers. Published almost five decades ago, the seminal work of Fried and Gleicher (1961) described how individuals living in Boston's slums experienced a profound sense of satisfaction. They argued that there was no empirical data linking slums with social strife, much as authorities believed to the contrary.

Public housing, as another form of high-density residences, has been stigmatized to the point that authorities have authorized its demolition. Vale (2002) estimates that in the 1990s, 100,000 units were demolished in the US. While the case against mass-standardized built environments seems to be backed by more empirical data, Vale (2002) provides evidence that a combination of

investment and sound management may increase the residential satisfaction of public housing residents and alter the broader opinions about it. While this may be true, the modernist ideology behind the design of the multifamily public housing compound also seems to be at odds with the sociocultural needs of residents across different cultures and countries (El-Masri and Kellett, 2001). Carmona (2001) examines the cause of developing more 'prescriptive' building codes through which increased control is established regarding the design of buildings. In his opinion, design and aesthetics are as much a matter of taste as they are a matter of democracy.

Apak, Ulken and Unlu (2005) raise the crucial question of how security levels of dense urban neighborhoods are perceived. They suggest that sound interventions in both the physical and the social dimensions of neighborhoods may lead to more integration between residents, more secure physical spaces and a reduction in crime rates. An earlier study by Cook (1988) found that security was the element contributing most to residents' degrees of satisfaction with their neighborhood, regardless of whether they live in the inner-city or the suburbs.

The fact that in developing countries a larger portion of the housing stock is developed through self-help methods may be a factor explaining residential satisfaction (Silvia et al., 2005; Kellet and Napier, 1994). Some have found a link between self-help housing and aesthetics of vernacular architecture (Silvia et al., 2005). However, a closer look reveals that without appropriate support, self-help housing lacks the positive elements of traditional buildings (Silvia et al, 2005). Silvia et al. (2005) argue that poor design choices may be related to higher degrees of dissatisfaction shared by residents of self-help housing units. Silvia et al. (2005) argue that the development of tools aimed at aiding self-help builders, such as design and building manuals, may help residents to create more comfortable houses. This idea is certainly not new. Four decades ago, Turner and Fichter (1976) suggested that developing supports for people building

their own houses would lead to the development of successful communities. In a similar vein, Alexander, Ishikawa and Silverstein, (1977) authors of the influential *A Pattern Language: Towns, Buildings and Construction*, hoped that their book would assist people in making their own design choices. While, when left to their own devices, self-help builders may make poor design choices, it has also been argued that a lack of design skills may not inevitably result in lower degrees of residential satisfaction. Building a home from scratch fills dwellers with a sense of pride and accomplishment (Hummon, 1992; Low and Altman, 1992; Wiesenfeld, 2002). Furthermore, while self-help housing may be controversial, it has been suggested that homes designed and built over time by their users outperform those built by the government through mass-production, within top-down decision-making schemes (Wiesenfeld, 2002; Segre and Lopez, 1986). However, regardless of whether neighborhoods take the form of mass-produced standardized housing compounds, suburban communities or slums, they do not remain static over time. On the contrary, neighborhoods are constantly changing. It has been suggested that residents evaluate their present habitats based on their impressions of the future (Cook, 1998; Michelson, 1977; Winter and Morris, 1982). My study examines how residents of Old Havana perceive and experience change in their current living environments. Change in the built environment of Old Change in Havana is the product of both residents fixing and adapting their homes through their own means as well the work of authorities seeking to transform Old Havana into a major hub of international tourism.

Methodology

This paper draws on qualitative research conducted in Havana in 2013 and 2014. The research was made possible by an award from the *Fonds de recherche du Québec – Société et culture.*

Research revolved around the following questions: what factors explain Old Havana residents' perceptions of residential satisfaction? How do neighborhood change and trajectory affect residential satisfaction? What explains residents' perceptions of change in the historic district? The objectives of the research were: (a) to document how residents perceive the renovation of Old Havana; (b) to investigate the ways in which neighborhood's trajectory has had an impact on residential satisfaction; (c) to document residents' attachment and residential satisfaction with their neighborhood; (d) and, to document the elements that explain residents' perceptions of the renovation of Old Havana.

Since a main objective was to grasp how residents experience, perceive and assess their residence in Old Havana (e.g., the 'meaning of living' there), I employed a qualitative, narrative-based approach. The ability to go in-depth and analyze the mechanisms through which residents attach meaning to the experience of living in the historic district through the use of semi-structured interviews was preferred over a quantitative study seeking to prove the existence of a link between residential satisfaction and other variables. I preferred to collect data from a relatively few number of cases as opposed to many. Furthermore, early in the preparation of the research I decided that I should pay close attention to contextual issues rather than seek out universal generalizations or follow predetermined categories.

During fieldwork, data concerning levels of residential satisfaction were collected through semi-structured interviews conducted with 58 residents of Old Havana (see the Appendix for a sample interview guide). All of them were living in Old Havana at the time of the research. Interviews with residents were arranged following a 'snowballing' technique in which, at the end of each interview, I asked interviewees to provide me with the names of additional people who could be interviewed. I stopped scheduling new interviews once I stopped receiving suggestions

of new individuals to interview. Initial interviews were arranged through the aid of a cafeteria owner, a businesswoman who had privileged contacts within the community. I pursued this specific sampling method since there were limited possibilities for gaining entry into the community otherwise. Interviews were conducted during mornings at residents' dwellings. This spatial arrangement allowed me to take notes, assess housing quality and keep a rich photographic record of both homes and semi-private and public spaces. Notably, I gathered data on basic indicators of housing quality including degrees of privacy, access to natural lighting, prevalence of overcrowding and adequacy of building materials. Field-based data collection was complemented by secondary sources of information. I accessed census data, residential satisfaction studies and other documentation related to official interventions in Old Havana. The collected data informed this article and other parts of my dissertation.

Interviews were semi-structured. I devised a list of topics I wanted to discuss with interviewees and asked questions that brought the topics into discussion. Some of the questions that were systematically asked were: do you like living in Old Havana? What do you like the most about Old Havana? Is there another neighborhood in which you would prefer to live? What do you think about the renovation project of Old Havana? In addition, interviewees were encouraged to freely express their views on issues concerning housing quality and neighborhood change. Often interview subjects guided me through their dwelling, identifying structural problems. They also recounted stories about their daily lives and their broader perceptions of the revolution and life in Cuba. I conducted all of the interviews by myself since Spanish is my mother tongue. Responses were collected using a digital audio recording device. Written summaries, including transcriptions of responses to key questions, were prepared for all 58 participants in the research.

The collected data were analyzed by color-coding responses according to topic. Patterns and links between residents' perceptions of neighborhood change and socioeconomic indicators were established through a comparison of responses to key questions and basic demographic profiles. For the purpose of facilitating the analysis, a matrix displaying data from each case was prepared. The frequency with which residents expressed either a positive of negative opinion on the change occurring in Old Havana was calculated. These are presented in the findings section below.

Residential Satisfaction in Old Havana: Local Responses

Fieldwork revealed that residents of Old Havana experience high degrees of attachment to their domestic habitats despite the poor conditions of their housing units. Furthermore, it revealed that residents' perceptions of the project to redevelop the historic district are linked to the possession of cultural capital and skills. The research suggests that residents of Old Havana may be qualitatively divided into two groups. The first group is those with less cultural capital and skills who fear they will be displaced as the redevelopment of Old Havana advances, transforming existing buildings in to hotels, bars, cafes, and boutiques. The second group represents those with increased cultural capital who believe that the renovation of Old Havana will bring about opportunities for better employment.

Poor Environmental Quality of Housing Units and Satisfaction with the Neighborhood

Only seven out of the 58 participants in the research displayed dissatisfaction with Old Havana as a place to live. Old Havana, despite the visibly low quality of its housing, nevertheless seems to offer an environment enjoyed by people for different reasons. Among those who would like to leave the neighborhood, the most common reason cited is the size of the dwellings, which are typically very small. For example, a single parent living with his son and daughter mentioned:

> What I would like is for the government to give me a land in the city's periphery. I do not like city life. I do not ask for much, just some land. I know about architecture and construction. I could build my house outside of Havana. I would like to have a dog watching over the house and have enough space for my kids and me.

However, the vast majority of the interviewees – 43 of them, in fact – stated that they like living in Old Havana. The interviewees expressed eight primary reasons for their satisfaction with the historic district. These were: high-quality public space, accessibility to services and amenities, a sense of attachment to the neighborhood after living their whole lives there, social support and solidarity among fellow residents, familiarity with the neighborhood, Old Havana's status as a UNESCO World Heritage Site, peacefulness and centrality.

Perceptions of and Responses to Redevelopment: Low-income Residents

Beyond the analysis of the elements that offer residents of Old Havana satisfaction with their lives, I asked interviewees about their perceptions of the district's redevelopment project and the rapid change it has brought upon. Out of the 58 participants interviewed, 30 expressed a negative perception of the renovation project. Of this group, almost all articulated the belief that the renovation project is aimed only at attracting tourists and will not offer benefits for residents.

Among those who expressed frustration towards the renovation project, one resident commented:

> The changes are really good for them and not for me. I do not understand why they keep building hotels and shops but they never fix a house. The changes are good for them not for us.

A comment by another resident who believes the renovation project to have failed in helping locals illustrates the fact that by and large residents of Old Havana do not understand the logic by which authorities have prioritized specific areas for renovation. This resident commented:

> They have fixed *Plaza Vieja* and *Parque de las Palomas* but they do not fix anything here. They have not done anything here. Our building is collapsing and they do not come here.

Residents report that the Office of the Historian, the agency in charge of the renovations, has failed to communicate with them. This lack of communication is reflected in several residents' view that there is no way for them to participate in the decision-making process.

Furthermore, some three interviewees stated the belief that authorities are deliberately allowing buildings to deteriorate and collapse in order to displace residents to shelters in Havana's periphery and use the vacated space to build more hotels, restaurants, bars and boutiques. As one resident commented:

> All the changes are for the sake of tourism. What actually happens is that they wait for a building to collapse. Then they send the people to live in a shelter in the periphery and they build a restaurant or hotel where we used to live.

A similar opinion was expressed by a middle-age woman living in a shack built on the rooftop of an apartment building already in poor condition. She explained that due to the collapse of buildings residents are being forcibly moved away from Old Havana. She mentioned:

> The renovations in Old Havana are done for tourists. Nothing is done to help us, the residents. There are no resources. If a building collapses, we will have to go to live in a shelter. It is one huge room with 700 people and no divisions, no kitchen, no nothing.

Perceptions of and Responses to Redevelopment: Residents with Cultural Capital

All of this said, twenty interviewees conversely expressed the belief that the renovation project is a positive thing and will benefit both locals as well as tourists. One resident commented:

> The changes are really good but it is going to be a long process. They have already fixed some squares and they are moving along from there. It is going to be a project costing millions of dollars but it is going to be worth. The more they fix the more the tourists come and the more money they leave us.

A lawyer living in a small apartment under renovation mentioned that he views the renovation project of Old Havana positively. He further stated that living in the center of Havana brings him a sense of satisfaction. He mentioned that he is happy to live in the district despite the frequently small size of dwellings. He commented:

> We are in the capital. Havana is the capital of Cuba and Old Havana is the capital of Havana. Here we are living in the center. No one would like to leave. When you are living in a capital everybody would like to stay in the center. I would not go to Alamar or any other place like that. I do not care if my house is small.

Another woman argued the renovation project and Old Havana's status as a UNESCO World Heritage Site offer a deep sense of residential satisfaction. She believes that the changes introduced by the Office of the Historian are entirely favorable. She mentioned:

> The work done by the Office of the Historian is magnificent. For example, *Parque Habana* used to be full of housing compounds like this one. Then, they renovated the whole place and created a fantastic square. They also improved the

> housing units. If you ask me about my opinion of the work of Eusebio Leal, I think it is great.

Further stories of residents' experiences of high residential satisfaction and positive outlooks concerning the renovation projects are found when looking at households that have built additional rooms in their homes to host tourists seeking a more affordable way of traveling in Old Havana. These households have access to incomes in hard currency that are ten to twelve times higher than those employed by the state. Figure 1 depicts the patio of a home that has been renovated to host foreign tourists.

An analysis of interviewees' sociodemographic profiles suggests that there is a pattern behind opinions of the redevelopment project of Old Havana. Notably, those with more cultural capital are more likely to view the renovation project positively. This is largely due to the fact that these residents are more likely to profit from increased tourism in the historic district. For example, an English-speaking resident who makes a living selling books in the beautiful *Plaza de Armas* commented:

> I think Havana is a pearl and that brings money. The beauty of Old Havana is attracting tourism and with tourism comes opportunities for us. I am really lucky. I just have to walk a few blocks and I arrive at my stand where I sell books to tourists. I make a good income.

According to my investigation, most residents of Old Havana experience high degrees of residential satisfaction. This is the result of several factors mentioned above. However, when I analyzed how residents of Old Havana perceive neighborhood trajectory and the changes associated with the renovation of Old Havana, I discovered that they are divided into two groups. On the one hand, there are those for whom the renovation project inspires fears of displacement.

This group is the largest, composed of over 30 residents who feel threatened by the renovation project. These residents are characterized by a limited level of cultural capital and fewer economic resources. On the other hand, there are those who believe that increased tourism in Old Havana will bring opportunities. This group is smaller in number, accounting for twenty of the 58 residents who were interviewed. This group is characterized by having a higher level of cultural capital. In some cases, residents of this group have renovated their dwellings in order to host foreign tourists, giving them access to income in foreign currency. Of the interviewees, eight failed to provide an opinion.

Determinants of Residential Satisfaction

The literature review highlighted past and current debates over the factors that inform residential satisfaction and habitat preferences. The first main finding of this research is that an overwhelming majority of research participants reported being satisfied with living in the historic district. Of the 58 interviewees, 50 expressed in one way or another that they liked Old Havana and would not want to move. People included in the sample shared this opinion regardless of their socioeconomic background. As such, my findings challenge the widely expressed assumption that socioeconomic profiles are always directly related to residential satisfaction (James, 2007; Bonnes, 1990; Cook, 1988; Fried, 1982; Miller et al., 1980). Conversely, the collected data suggest that residential satisfaction is associated with the richness of the social environment.

Determinants of residential satisfaction: social networks, place attachment, type of tenure and housing typology

The high degree of residential satisfaction found among those living in Old Havana challenges the notion that people would always prefer to live in large suburban houses with

lawns and backyards (Buys, 2012; Randolph, 2006; Troy, 1996). My findings suggest that the preference for a suburban lifestyle is not universal and is rather limited to the context of certain developed countries. The research sheds light on the dynamics of place attachment, tenure type and self-help construction as elements that impact residential satisfaction. My conclusions also challenge the notion that people would rather live in suburbs in spite of the loss of proximity to relatives and friends (Shlay, 1985). Nine participants in the research stated that social support within the neighborhood was their main reason for liking Old Havana. The importance of social support as a determinant of residential satisfaction is identified elsewhere in the literature (Bruin and Cook, 1997). For example, Huchzermeyer (2011) claims that social support is a key experiential factor for the urban poor. Moreover, Mudege and Zulu (2011) suggest that social bonds are as important in explaining residential satisfaction as socioeconomic profiles or housing quality.

The high degree of place attachment among residents of the historic district may be linked to the experience of social support from peers. Testimonies offered by the large majority of participants suggest that living in Old Havana is an important facet of residents' identities. My findings support the notion set forth by Kahrik (2012) and Forrest and Kearns (2001) stating that where we live is part of the statement of who we are.

My findings also challenge the notion that that home ownership is universally related to residential satisfaction (Rohe and Stegman, 1994; Rossi and Weber, 1996) and overall self-esteem (Rohe et al., 2001). Rather, my research supports the idea that in certain contexts renters may be a satisfied as homeowners (Elsinga and Hoekstra, 2005). In Cuba, evictions are forbidden by law. In such a context, people may find some solace in being legally protected against homelessness, especially those with less cultural, social and financial capital. While this

legal protection gives residents of Old Havana a sense of security, the type of tenure they hold mixed with other socio-demographic indicators (a) translate into fear of displacement to peripheral areas of Havana and (b) have a negative impact on the respondents' overall perception of residential satisfaction.

Determinants of residential satisfaction: self-help construction

Further, the findings support the notion that building a home from scratch, within the parameters of what we call 'self-help,' may provide a household with a sense of achievement and increase their degree of residential satisfaction (Hummon, 1992; Low and Altman, 1992; Wiesenfeld, 2002). In the context of my research, 50 of the 58 participants have engaged in one way or another with self-directed home renovation projects.

Previous research has often suggested that when self-help builders lack design and construction support they will make poor choices in relation to the layout and configuration of their dwelling (Silvia et al., 2005). Poor design would thus translate into a lower degree of residential satisfaction. However, it has also been suggested that when buildings are constructed through self-help methods they outperform mass-produced and standardized types of public housing (Wiesenfeld, 2002; Segre and Lopez, 1986). My findings suggest that residents of Old Havana would not like to move to neighborhoods in the periphery of the metropolis. Five participants explicitly said that they would hate being forced to move into one of the large standardized housing estates that stand on the edges of Havana, such as Alamar.

Determinants of residential satisfaction: long-term perspective and the neighborhood's trajectory

While, as stated above, socioeconomic profiles do not determine residents of Old Havana's satisfaction with their neighborhood in the present, this relationship changes dramatically when

we neighborhood trajectory is introduced as a variable. Of the 58 participants in the study, 30 expressed frustration with the redevelopment project of Old Havana, 20 stated that they viewed the change as positive and 8 failed to provide an opinion on the matter. This contrast supports the idea that residents evaluate their habitats based upon their impressions of the future (Cook, 1998; Michelson, 1977; Winter and Morris, 1982). Also, Mudege and Zulu (2011) suggest that residential satisfaction is directly related to expectations in terms of improvement of basic services and public space. What is surprising is the fact that 30 participants in the research did not identify the renovation of Old Havana positively. This belief was held by those who have less cultural and financial capital. Those with less favourable socioeconomic profiles seem less able to profit from the redevelopment project than those who have established ways to financially benefit from the increased tourism in Old Havana. These residents fear that the renovation of Old Havana will ultimately result in their displacement towards other areas of Havana.

Conclusion

My findings support the notion that residential satisfaction and perceptions of environmental quality are dependent upon context. My study challenges the notion that findings collected in cities of the developed world hold universal validity. Similarly, while the trustworthiness of my findings is supported by a triangulation of the collected data, the major conclusions drawn are representative only of the reality in Old Havana and thus cannot be generalized. In other words, the dynamic elements that inform experiences of residential satisfaction in other historic districts across the developing world may differ from those I identified in the case of Old Havana.

This study has examined perceptions of residential satisfaction among residents of Old Havana, a district undergoing rapid transformation. Residents view the rapid changes being made

to its built environment in two ways. On the one hand, certain individuals feel that neighborhood improvement is a positive, and will bring about increased economic opportunities and benefits. On the other hand, many perceive the renovation of Old Havana as a threat. Examining the socioeconomic profiles of the participants in the research, it is possible to conclude that those who perceive the transformation of Old Havana as being positive possess higher cultural capital and the skills necessary to allow them to profit from growing tourism. In contrast, residents bearing fewer skills and less cultural capital generally believe that the government wants to demolish their homes and displace them to shelters in order to create more hotels, boutiques and restaurants.

While the authorities managing the renovation of Old Havana have committed to preserving the residential character of the historic district, there is nonetheless evidence of residents being displaced to other neighborhoods in Havana. The data I collected suggests that, despite the poor structural condition of its housing stock, residents of Old Havana still like their neighborhood and would like to remain in it as long as possible.

Finally, this research adds to our understanding of residential satisfaction in the context of dramatic urban change. The redevelopment of Old Havana offers an ideal scenario in which to explore the links between residential satisfaction and the ways in which residents perceive their futures. The research suggests that residents' satisfaction with their neighborhood is strongly tied to their evaluations of the future.

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Bridge: Why Do We Need Participation?

During the 1990s, a severe economic crisis forced Cuban authorities to begin supporting initiatives that experimented with community-oriented participatory public services (Ramirez, 2005).

Participatory approaches have become common in areas as diverse as employment, health, family violence and architecture. In particular, participatory approaches aiming at assisting people in designing their homes have become extremely popular (Lizarralde and Massyn, 2008). Lacking the materials and fuel needed to prefabricate standardized housing estates, Cuban authorities had no choice but to allow activists and liberal practitioners to develop experimental programs assisting self-help builders in rebuilding their homes. Following a methodology developed by the Argentinian architect Rodolfo Livingston, these programs placed residents at the center of semi-public decision-making processes and employed community architects to facilitate urban redevelopment (Valladares, 2013).

The great popularity of participatory approaches is demonstrated by the impressive growth of the Community Architect Program. Within a decade, the initiative grew from a small team working in the province of Holguin to a national program, employing more than a thousand designers across all of Cuba's municipalities (Valladares, 2013).

The ultimate goal of the Community Architect Program was to align Cuban architectural and planning practices with democratic principles. This said, allowing residents to make choices while designing their homes is not only a matter of democracy. Liberal planners and architects have adopted participatory methods due to the belief in their efficiency (Hamdi, 1991). Indeed, participation is a tool by which the physical environment may be shaped according to existing social structures and dynamics. The methods championed by the Community Architect Program

represent a breakthrough in the global landscape of planning and architecture: notably, the first implementation of a participatory design initiative on a national scale.

The following article discusses in detail the methodology implemented by the Community Architect Program, asserting the status of the Program as one of the most exciting developments in the fields of planning and architecture.

The chapter has been published as a full article in Habitat International.

Chapter 5:

The Community Architect Program: Implementing Participation-in-design to Improve Housing Conditions in Cuba

Abstract

The Community Architect Program was created in Cuba in 1994 to support self-help housing construction. Since the creation of the program, the community architects have used participatory techniques to provide technical advice to residents who wish to build, expand or renovate their homes. The article documents the codification and implementation of a new participatory design method, and its use by more than a thousand professional community architects on the island. The research looks at the institutional features characterizing the Community Architect Program and examines how these institutional features facilitate the practice of participatory design within the context of existing land use and building regulations. The paper analyzes the Cuban experience within the context of ongoing debates about participation in urban and housing processes.

Introduction

This paper examines the creation of a participatory design method in Cuba for assisting residents in the construction of their homes. This new participatory design method was developed by the architect Rodolfo Livingston and has been extensively used by the Community Architect Program since the early 1990s. Today, more than a thousand architects working across the island make systematic use of the method to advise residents on the building, expansion and repair of their houses.

In order to provide a complete picture, and with the hope of illustrating how participation

can be implemented within the context of existing urban planning regulations and policies, this article includes both a description of the participatory design method that has appeared and evolved in Cuba, as well as a review and analysis of the institutional framework characterizing the program. Also, the paper situates the Cuban experience within the context of ongoing debates about citizen participation in housing processes in the developing world.

The use of participatory design techniques to assist the development of self-help housing was introduced in Cuba by the NGO Habitat Cuba in the context of a generalized economic crisis known as the Special Period. As was the case in some other urban policies and programs from the 1990s, the new housing strategy represented a shift in the decision-making models used by Cuban institutions in providing services (Evenson, 2009; Ramirez, 2005; Sergre, Scarpaci, & Coyula, 2002). Since the 1960s, Cuba has followed a socialist development model where institutions and policies are usually characterized by a top-down approach. In this top- down model, decisions are taken by government officials in council with a handful of experts, while the population is not directly consulted; in fact, tight governmental control was one of the main pillars of Cuban social policy (Coyula & Hamberd, 2003). In the context of housing, the top-down approach translated into the extensive use of prefabrication techniques where large reinforced concrete panels manufactured in factories were later assembled in the building sites. This approach to housing often involved the development of large housing complexes, sometimes designed for up to 100,000 people. Alamar, a housing development in East- Havana is a prime example of the use of prefabrication techniques in Cuba for the mass-production of housing (Sergre, Scarpaci, & Coyula, 2002). This mass-production approach has been found to systematically neglect the sociocultural dimensions of housing (El-Masri & Kellett, 2001), often alienating low-income users (Eldemery, 2002). In the case of Cuba, it became abundantly clear

that the use of imported prefabrication technologies was also at odds with local conditions (Sergre et al., 2002).

The end of the Cold War and the fall of the Soviet Union abruptly ended the era of mass-production of housing in Cuba. Since 1989, all sectors of Cuba's economy have faced crisis. The housing construction industry is no exception; the loss of trade with Eastern Europe meant that factories dedicated to the production of pre- fabricated house-components closed due to the shortages of prime materials and fuel. During this period, the total number of housing units built by the state fell from 29,000 units in 1988 to 21,000 in 1992 (NIH, 2010). Demand was increasing quickly, and by 1993 it was clear that a new approach to housing construction was required.

In this context, the NGO Habitat Cuba was created in 1993, with support from the Cuban government. Habitat Cuba played an important role in generating alternative models to foster housing solutions, creating demonstration housing projects, providing training to architects and engineers promoting citizen participation in solving housing issues, and contributing to the changes required within the institutions dealing with shelter in Cuba. Some of the NGO's immediate solutions were to create local factories for the production of bricks and to promote the use of earth and other alternative construction materials like bamboo. However, Habitat Cuba's most important contribution to housing production was the development of the Community Architect Program, which provided technical assistance and guidance to people building their own homes.

The Community Architect Program broke with the traditional top-down policy model and recognized the need to support citizens' efforts in building their own houses. The program's objective was to enable residents' participation in the design of their houses. Instead of simply

requiring residents to provide labour as sweat equity in the completion of housing projects, the new approach entailed facilitation of interactions between architects and residents to help residents articulate their spatial needs and help them make informed decisions about the building processes they are about to undertake.

It is difficult to assess to what degree this breakthrough forms part of a larger movement in the politics of the island. In 2001, Habitat Cuba was dissolved, shortly after a change in the direction of the National Institute of Housing (NIH). The Community Architect Program was then absorbed by NIH and kept on growing, from an initial group of no more than twenty practitioners working in the province of Holguin to more than 1000 employees now working all across Cuba. This impressive growth rate signals a major transition within the housing field. In fact, the proportion of units being built through self-help went up from 25% in 1988 to 38% in 2002 (NIH, 2010).

In this transition, the conventional approach to housing was replaced with an unconventional approach (Keivani & Werna, 2001). This shift seems to be in line with the international recognition that, in the context of developing countries, self-help housing strategies are the most viable alternatives because of their affordability and flexibility (Gilbert, 2004, 2009; UN-Habitat, 2005). However, while the cost-effectiveness of the strategy is the central factor in explaining the success of the Community Architect Program, the transition that occurred in Cuba touched many aspects of the architectural practice in the island.

In the new housing approach, a myriad of small-scale interventions made by residents became the dominant mode of building homes. These small-scale interventions, where users have control over design and building, often involve the use of indigenous building techniques and materials and also increase the diversity of the built environment (Alexander & Center for

Environmental Structure, 2002a) and allow people to participate in the creation of a cultural landscape (Carmon, 2002). The creation of the Community Architect Program responded to the need to support these myriad small-scale efforts. As a former director of Habitat Cuba explained in an interview, the idea was to find a way to support residents in building housing. In addition, the new framework acknowledged the capacity and imagination of regular people to make decisions about their built environment, and reflected a view that the expert designer should not dictate solutions to them. An interviewee commented that one of the objectives of the program was to move away from a traditional authoritarian approach in architectural practice, towards recognizing that residents are knowledgeable of their spatial needs. The idea behind the program was precisely to incorporate the resident's knowledge in the design process. This program changed the role of residents in the housing production model. Prior to the creation of the Community Architect Program, residents were conceived merely as final end-users; in the new approach, residents became an active force in the production of housing.

The director of the Community Architect Program commented that there had been a change in the focus of architectural practice across the island. Until the 1990s, there had been an emphasis on the production and design of 'great' buildings or 'grandiose' architecture. With the establishment of the Community Architect Program, the construction of simple buildings used by people in their daily lives became the new focus of state-supported architecture.

This new direction in the housing field in Cuba came with new orientations in architectural practice and education. One of the founding members of the Community Architect Program mentioned that not only is it important for a community architect to have a full command of design techniques and theory, but also, the architect must have the ability to approach clients and help them in understanding their needs. Furthermore, the design process is taken outside the

traditional architectural studio and directly involves families. Community architects must enjoy working with people and have good communication skills. In these respects, the way Cuban community architects approach design corresponds to the 'enabling' role prescribed by authors such as Alexander and Center for Environmental Structure (2002a, 2002b, 2005), Alexander, Davis, Martinez, and Corner (1985) and Paul Oliver (1987).

The importance of the Cuban experience rests not only on the creation of this innovative approach to design. During the past four decades, in both developed and developing countries, there has been a growing movement of practitioners advocating for residents' participation-in-design. Rather, the importance of the Community Architect Program lays in the impressive growth in the number of architects working in the program and in the level of services it has provided to Cuban families since its creation. A professor from the Faculty of Architecture at the University of Las Villas in Santa Clara said that, in the past two decades, the Community Architect Program has extended its presence to all the provinces of Cuba, and there is a Community Architect Office in almost all of the municipalities of the country. According to the current director, Community Architect has more than 1000 architects working across Cuba.

Methodology

This paper draws on qualitative research conducted in Havana, Cuba during the summer of 2012. The research was made possible by a travel award from McGill University.

The research revolved around the following questions: What kind of institutional context is required to support participation-in- design? What participatory design methods are being implemented? How is participation-in-design implemented on a large scale in Cuba? The objectives of the research were: (a) to document the participatory method used by the Community Architect Program, (b) to identify the institutional characteristics of the Community

Architect Program, (c) and, to document the evolution of the implementation of participatory design methods in Cuba.

During the fieldwork, data regarding the Community Architect Program were collected through interviews with key informants. In total, 23 interviews were carried out. Interviewees included the director of the Community Architect Program, the former director of Habitat Cuba, the Havana regional director of the Community Architect Program, the former director of the Group for the Integral Planning of Havana, a planner from the Group for the Integral Planning of Havana, an officer at the Historic Preservation Office of Old Havana, a retired professor from the University of Havana, two professors from the University of Las Villas Santa Clara, five community architects from the Community Architect Office of Old Havana, four community architects from the Community Architect Office of Centro Havana, three community architects from the Community Architect Office of Playa, and two community architects from the Community Architect Office of Pogolotti. Interviews were arranged following a 'snowballing' technique, where at the end of each interview, I asked the interviewees to provide me with the names of more people that could be interviewed. Normally, each interviewee provided two or three names. I stopped scheduling new interviews when I stopped receiving suggestions of new individuals to inter- view. Data were also gathered through observation of office meetings and the review of recent and ongoing design work by community architects. Further data were obtained through analysis of official documents and site plans.

Interviews were semi-structured. I came up with a list of topics I wanted to discuss with the interviewees and asked questions that brought the topics into the discussion. The questions included in the interviews reflected three basic topics: the background and history of the Community Architect Program, the principles organizing the day-to-day work of the community

architects, and the different phases and characteristics of the participatory design methods. The collected data was analyzed by comparing the responses given by different respondents. In other words, I verified that 'everybody was telling the same story'.

Theory

In recent years, there has been an increase in interest in studying the different ways in which self-help housing can be supported. For various reasons, self-help has been seen as the natural choice for the poor in developing countries. Self-help housing can be adapted progressively (Fernandez-Maldonado & Bredenoord, 2010) to fit the changing needs of families that tend to stay in the same house for long periods of time (Ward, Huerta, Grajeda, & Ubaldo Velazquez, 2011). In a recent study, Sakay, Sanoni, and Toshihiro (2011) provide a good example of how a house can grow and adapt over time according to the needs and possibilities of the families that live in them. While most poor countries encourage self-help housing (Landman & Napier, 2010), self-help housing strategies have changed throughout different periods of times.

While self-help housing may come naturally for the poor, its success requires different forms of assistance from NGOs and governmental agencies (Sengupta, 2010). Ideally, self-help approaches would include providing technical advice to facilitate citizen participation in different aspects of housing development. Such supports have long been advocated in many housing forums and academic circles (Davidson, Johnson, Lizarralde, Diken, & Sliwinski, 2007). A recent study by Masotti, Ferrante, Boiardi, and Fabbri (2011) showed that residents with no building experience depend on the goodwill of others to receive technical advice. Often, projects are delayed or poorly executed because of lack of expertise in building, and because uncoordinated construction methods and techniques tend to push up the cost of construction (Tunas & Peresthu, 2010).

Unfortunately, technical advice has often been ignored in current self-help approaches that focus on the development of housing markets and the provision of titles (Soliman, 2012). Efforts to systematically support residents in the design of their own houses have been reported in only a few cases, such as the Million Houses Program of Sri Lanka (Joshi & Sohail Khan, 2010), and more recently the Technical Training Resource Center of Karachi, Pakistan (Ismail, 2011).

In past decades, planners have shifted their emphasis from the isolated improvement of housing units towards more comprehensive approaches to improve the habitat as a whole, and far less attention has been paid to assisting self-help housing (Bredenoord & Van Lindert, 2010). In part, this is a result of the common belief that communities rather than individual households should be the entities that engage in housing development. This belief is rooted in the conviction that the goal of participation is to strengthen ties within the community (Carmon, 2002; Choguill, 1996) and that these enhanced ties leverage projects (Buckley & Kalarickal, 2005; Daniere, Takahashi, & Narangon, 2002) and ultimately help to reduce poverty (Lemanski, 2008; Mason & Beard, 2008). Along these lines, community participation has successfully played a role in improving the delivery of services like sewerage, storm water drainage, piped water, roads and landscaping (Das & Takahashi, 2009). However, when it comes to the delivery of housing, community participation has been reported, in some instances, to unexpectedly fail to produce better outcomes. For example, a study of four housing projects involving community participation in South Africa, a country that since 1998 prescribed community participation as part of its national housing policy (Jenkins, 1999), found limited integration of economic activities, low density and fragmentation, limited possibilities for progressive construction, and limited variety and multiplicity (Lizarralde & Massyn, 2008). Some of these negative outcomes may be related to the fact that residents did not fully participate in the design of their dwellings.

The South African cases provide a good example of the gap between policy and practice with respect to citizen participation in the delivery of housing in a region where the proportion of aided self-help housing is relatively low compared to the proportion of houses built through unaided self-help (Landman & Napier, 2010). This gap is exacerbated by a systematic confusion around the meaning of participation in development processes (Davidson et al., 2007). Shehayeb and Abdelhafiz (2006) illustrate how the way in which different actors define participation is inevitably linked to the role these actors have in development processes. For example, while development agencies may see participation as a way to enhance the performance of the projects, local authorities may see it as a form of subversion. Research on the implementation of participatory design methods shows that authorities are likely to refuse to give residents control over design decisions (Nascimento, Salomao, & Hardy, 2009), and this research also shows that the feasibility of participatory design depends largely on the degree to which such methods fit into existing legal frameworks (Alvarado, Donath, & Böhme, 2009; Mirmoghtadaee, 2008).

It is in this context that looking at Cuba's success in codifying and extensively implementing a participatory design method may provide valuable lessons on how citizens participation in housing processes can be implemented and may suggest solutions to issues that have been identified elsewhere. The case of Cuba illustrates how the gap between desired policies and practices can be breached.

The Key Aspects of the Community Architect's Institutional Framework

In order to fulfill its transitional role, from the time of its creation, the Community Architect program followed a set of principles that guided the day-to-day work of the community architects. An analysis of the responses given by different officials and practitioners, as well as observation of office meetings and ongoing design work by the community architects, revealed

that this set of principles have been essential in maintaining the program's capacity to offer an appropriate service. These principles are: (a) consistent work on the same district, (b) review of the work by colleagues, (c) systematic learning and application of the same design method, (d) progressive payment to the architects according to amount of work produced, (e) implementation of standard fees, and (f) working in compliance with existing regulations and policies.

Consistent work on the same district: All community architects are assigned to work in a specific part of the city. This allows the architect to gain familiarity with the built environment's characteristics and with the relevant regulations. As a community architect mentioned, working in a specific area allows architects to respond with consistency to the design issues they are presented with. Another interviewee commented that it is important for community architects to work in the same part of the city so they become familiar with the urban landscape and understand how a home has to fit into it. In addition, by working in specific areas of the city, community architects gain knowledge of the urban regulations and the way these regulations affect the design. They gain an understanding of the kinds of designs that are approved by the office providing building permits. Indeed, gaining understanding of local land use and building regulations and, at the same time, creating flexible-customized designs are part of the daily work of community architects.

Review of the design work by colleagues: All the work produced in a community architect office is reviewed in weekly meetings where architects present projects for peer evaluation. The chief of the Old Havana Community Architect Office said that these weekly meetings provide an opportunity to discuss the design projects and help ensure high quality design and service to the families.

Systematic learning and application of the same design method: Community architects must

have a thorough knowledge of the organization's working method, which has been employed by the organization since its creation. It is important to note that the more than one thousand community architects working in Cuba all use the same design method.

Progressive payment to the architects according to the amount of work produced: Since the inception of the program, community architects' salaries have been tied to the amount of work produced. This payment method was completely new in Cuba. According to the first director of Habitat Cuba, this system worked perfectly, and motivated the architects to produce high quality work. It also addressed a problem that is also found in many other countries, where architects are not paid if buildings are not constructed since they are usually paid upon the completion of a project. In contrast, the community architects are paid for producing a design, whether the building is constructed or not. Thus, the system of payment adopted by Community Architect addressed the high rate of unemployment in the Cuban design and construction sectors that emerged in the 1990s.

Implementation of a standard system of progressive fees: Another defining feature of the Community Architect Program is the standardized fee system. Fees are charged progressively according to the number of services a household requests. For example, if a household only requires a plan of its existing house, it pays only for that service, while if a full set of plans is desired, then the household pays for the additional architectural services. If a household goes through all the phases of a full design process, it will pay 350 Cuban pesos, about 15 US dollars. At the time the program was organized by Habitat Cuba, the fees almost covered all of the program's expenditures; only a small portion, equivalent to the cost of the drawing materials, was funded by international aid organizations. Currently, and since Community Architect became a part of the National Institute of Housing, the program is self- sufficient in terms of

funding.

Working in compliance with existing regulations and policies: In addition to providing aid and advice in the construction, repair and expansion of homes, the Community Architect Program plays a key role in assisting the population in completing legal processes related to the land use and building regulatory systems. The community architects also have a role in solving legal disputes over 'rightful occupancy,' inheritance, and building code compliance. Some community architects mentioned that densely populated zones like Old Havana or Centro Havana, where a large number of apartment buildings have been subdivided many times throughout the past century, generate a larger demand for legal services. In fact, in the province of Havana, which is the most urbanized territory in Cuba, 85% of the services provided by the Community Architect Program are services dealing with legal disputes. According to some local observers, the community architects' responsibilities regarding the provision of spatial information required by the legal and regulatory systems is a bureaucratic burden (Scarpaci et al., 2002); some observers are more critical and suggest that over- bureaucratization may have facilitated corruption, as some people may be tempted to bribe community architects in exchange for faster service or a favorable assessment.

The Community Architect's Design Method

Officials and practitioners from the Community Architect program codified a new participatory design method in the early 1990s during a series of workshops and conferences organized by Habitat Cuba and the National Institute of Housing. In general, the method consists of sequential application of participatory techniques such as role-playing and the use of blueprints to help residents visualize the different design options that are being discussed. The rationale behind the method is to facilitate communication between residents and designers. The

method consists of the following four phases: (a) site visit and primary data gathering, (b) feasibility studies, (c) presentation of alternative design solutions to the residents, and (d) preparation of the instructions manual.

The process begins when a client visits the Community Architect Office. The client is provided with information about the process, the different services that are offered, the timeframe of such services, and the requirements. The objective of this first meeting is to provide the potential clients with enough information to decide whether or not it is appropriate for them to hire a community architect.

Phase 1: site visit and primary data gathering. The objective of the first phase of the method is to gather all the required background information. The architect gathers the data in a field visit to the family house. This first visit takes 2 h in average and the architect is responsible for obtaining data in three main areas. The first is information on the site itself. The architect sketches a plan specifying the size and distribution of spaces throughout the house. Later, in the office, the community architect prepares the plan in AutoCAD. This plan will become the basis of the design work. The architect also gathers information about the actual use that the family gives to each space, and identifies issues of privacy, ventilation and lighting, as well as potential legal issues that may arise from the location of windows or accesses to the house. In the case of Old Havana, a community architect explained that information about facades is also collected to ensure that they comply with the regulations imposed by the Code of Historical Preservation of Old Havana; in some instances, this means that facades need to be refaced to comply with the existing regulations.

The second kind of data that the community architect collects regards the family. The architect interviews all members of the family, including the children and plays a series of four

role-playing games with them. The first game is known as 'More and Less.' In this game, the architect asks what the different members of the family like more and less about certain aspects of the house; for example, what is it what they like the most about the kitchen, or, what do they like the least about the living room? In the second game, 'Public Prosecutor,' the family takes the role of a prosecutor, imagining that the house is being accused in front of a jury. The family asks questions like "why is the hall of the house so dark?" or "why is the kitchen so small?" In the third game, 'Client's Project,' the family is asked to imagine they are architects and to propose a design for the house. The architect is responsible for sketching the family's proposal. This game is important because it allows the integration of a design proposal that does not come from the architect but from the family. In the final game, 'Dream House,' the architect asks the family to forget about the existing house or the site in which the house will be constructed and imagine the ideal house for them. This game allows the architect to discover the family's wishes and needs, which will then become the basis of the actual designs that the architect will end up proposing to the family in the subsequent phases of the process.

The third kind of data the architect collects relates to the resources the family can invest in the renovation or construction of the house. The architect considers financial resources as well as access to materials and availability of time to invest in the construction.

Once the data-gathering field visit is concluded, the architect reviews all the data and integrates a list of needs. This list of needs, along with the sketched plan of the existing house, guides the community architect in the production of three different design solutions.

Phase 2: feasibility studies. The feasibility phase consists of the preparation of design solutions. The architect first creates an improved version of the client's project. One designer from the Community Architect Office in Old Havana explained that this version of the client's

project sometimes does not solve all the issues identified in the data-gathering stage of the project. However, this version is important because it allows the community architect to have a spatial representation of the family's desires and wishes. Then, the community architect prepares two new design variations in which all elements are considered. The architect then presents all three designs to his colleagues at the office who review them and indicate how they can be improved. After considering all suggestions, the community architect prepares the file for presentation to the family.

Phase 3: presentation of alternatives design solution to the residents. In the third phase, the architect shows the three design variations to the family. The architect must explain the drawings and make sure that all family members understand each of the possibilities and their advantages and disadvantages. One community architect explained that the key is that the family becomes able to imagine the happiness and suffering that each design would bring to them. The family then has seven to ten days to choose a final design.

Phase 4: preparation of the instructions manual. In the final phase, the family picks one of the design variations. The community architect then prepares a final plan and an instruction manual that includes details about the construction process and the materials required. A member of the family signs a document in which he or she affirms approval of the service provided.

Discussion

The Community Architect Program demonstrates that participation-in-design can be an integral component of strategies aiming at assisting residents in their efforts to build, expand and repair their homes. The program also shows that the successful systematic inclusion of residents in housing processes depends on sound participatory methods and techniques and on an institutional framework in which the designers are able to mediate between, on the one hand, the

requirements and objectives of existing urban policies and regulations and, on the other, residents' needs and expectations. The hundreds of projects completed by the Community Architect Office in Old Havana precisely illustrate that facilitating and enabling residents' control over the design of their homes can be done even in the context of significant regulatory controls, such as those in Old Havana with its World Heritage Site status. As shown in Table 5.1, two of the principles identified in Section 4 are directly related to ensuring that residents' participation in the design of their homes do not result in disobeying land use and building regulations. Also, the analysis revealed that the crafting of the program followed several other principles to guarantee that the community architects provide acceptable services to their clients.

Table 5.1: Summary of principles guiding the work of the community architects

Principles related to the inclusion of land use and building regulations of the design work	Consistent work on the same district Working in compliance with existent regulations
Principles related to the standard of the service provided	Review of the design work by colleagues Systematic learning and application of the same design method Progressive payment to the architects according to the amount of work produced Implementation of standard system of progressive fees

Based on an analysis of the distinct phases on the design processes, as shown in Table 5.2, a set of principles upon which the participatory method is constructed has been identified. By following these principles, the method implemented by the Community Architect Program secures effective participation-in- design at the household level. The identified principles are: thorough knowledge of the site, all household members must participate, households must understand and articulate their spatial needs, households must have a realistic assessment of their

capacity to participate in the building process, households' inputs guide the design work, and residents are offered choices and provided with custom-tailored technical advice (see Table 5.2). The identified principles emerge from an implemented method; as such, they allow us to go beyond the prescriptive and the normative levels at which participatory processes often are discussed. Indeed, by seeking participatory principles at the level of implemented methods, housing agencies would be in a better position to assess whether programs pursuing participation in housing are actually breaching the gap between policy and practice discussed in Section 3. Also, by investigating this collection of participatory principles, a distinctive feature of the Community Architect Program is revealed: participation is promoted at the household level. Because of this, the Community Architect approach may be seen as being at odds with one of the fundamental promises of participatory processes, the empowerment of the community. Indeed, in the Cuban approach, housing issues are addressed on a case-by- case basis, while the role of the community seems to be left aside. Does this mean that participation-in-design can, in some instances, be detached from the political and become a process where flows of power or negotiation do not occur? In fact, this is not the case, as can be seen by considering two elements of the program. In the first instance, in one of the principles of the method, 'all household members must participate,' there is an implicit recognition that even at the family level, there exist different interests and priorities. With respect to this issue, there is a need for study of how community architects mediate the different interests of the family members, and how issues revolving around gender are being addressed. In the second instance, as mentioned earlier, when a community architect is involved in the design process, local and land use and building regulations are incorporated. Therefore, the needs and expectations of the family are negotiated within the existing regulatory framework.

Table 5.2: Participatory principles as embedded in design process

Phase 1. Site visit and primary data gathering	Gain thorough knowledge of the site Assure that all household members participate Facilitate residents' self-awareness of their spatial needs Promote realistic assessment of household capacity to face building process
Phase 2. Feasibility studies	Allow users' inputs to guide the design work
Phase 3. Presentation of alternatives design solution to the residents	Offer residents different choices
Phase 4. Preparation of the instructions manual	Provide tailored technical advice

The principles guiding the work of the community architect illustrate how supportive elements of the institutional context are of importance to participation-in-design initiatives. Furthermore, this article describes a methodology meant to facilitate residents' participation in the configuration of their living environments.

Conclusion

The Community Architect Program has succeeded in assisting the population by using participatory design methods specially tailored to function in the circumstances in which houses are constructed in the cities of the developing world. Unlike other policies that have tried to add to or complement already existing institutional structures and processes with resident participation, the Community Architect Program was designed expressly around a participatory design method. In part, the success of the program is due to the consistency between the institutional features of the program and the design method that is applied.

The Community Architect Program demonstrates that participatory approaches require the

development and implementation of sound participatory methods. In fact, the analysis suggests that effective participation depends on the way in which participatory principles are embedded and implemented in a design method. Along these lines, the attention of NGOs and agencies interested in promoting citizen participation in housing processes should be drawn more towards the development of participatory methods rather than just to the prescription of participation at a normative level.

Finally, it is clear that the scope of this article cannot entirely do justice to the richness of the Cuban experience with the implementation of participation-in-design. The Community Architect Program offers an invaluable opportunity to conduct further research the possibilities and limits of citizens' participation in housing processes.

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Bridge: After Design

Cuban efforts to develop user-led design processes, such as the one examined in the previous chapter, are based in the notion that the traditional ways of designing living spaces may be improved by giving users the possibility of thoughtfully collaborating with professional designers. Of particular relevance to those directing policies in Cuba is the idea that in providing professional assistance to residents designing their own homes, self-builders will respect urban regulations while maintaining control over the building process (Valladares, 2012).

However, design is not the only part of the story. Redeveloping the built environment is a complex process influenced by several factors. For example, in the informal settlements of the developing world, what people design and build seems to be determined by the materials low-income residents can access. Other important variables include: financing, availability of materials and labor (Davidson, et al, 2007).

In order to determine the success or failure of building processes, we surveyed laypeople and conducted enquiries aiming to reveal degrees of residential satisfaction. In Chapter 4, I present the results of the residential satisfaction studies we undertook in Old Havana using qualitative methods. In conducting such research, the aim was to understand the obstacles people face when physically rolling up their sleeves to pile bricks with mortar.

In Cuba, and especially in Old Havana, collaborative design interventions developed by professional architects and residents often carry the goal of upgrading already-existing buildings. When making home adaptations, community architects are typically employed.

Looking at the final outcomes of two projects conducted by the Community Architect Office of Old Havana and analyzing low-income residents' perceptions of their roles and work, I was able to assess the successes and failures of the Cuban approach to self-help building.

The following article evaluates the performance of the Community Architect Office of Old Havana. It suggests that only those with enough financial capital are able to profit from the services of the community architects. The article examines the degree to which the hybrid system discussed in previous chapters provides a viable alternative for those seeking to improve their homes in Old Havana.

Chapter 6:

Successes and Failures of Participation-in-Design: Cases from Old Havana, Cuba

Abstract

Following the fall of the Soviet Union, Cuba faced a crisis that forced it to change its approach to housing. Self-help building programs began to supplant the construction of mass-standardized housing estates. The Community Architect Program was developed to provide design advice to self-help builders and within a decade it expanded exponentially. By the year 2000, all municipalities across Cuba had their own Community Architect Office. While the Community Architect Program's approach has been hailed as a breakthrough in the fields of planning and architecture, the particular case of Old Havana suggests that there are several obstacles preventing residents from fully benefiting from its services. By looking at two home renovation projects in Old Havana, as well as low-income residents' perceptions of the work done by the community architects, I identify the strengths and limitations of the approach. The research suggests that participatory design methods need to be complemented by community-based initiatives dealing with other aspects of the housing development process, such as access to materials, construction and construction management.

Introduction

Cuba's Community Architect Program was introduced as a result of a shift in the balance of global geopolitical powers. The collapse of the Soviet Union and its empire in Eastern Europe was felt deeply in Cuba, where the country found itself without the capacity to import fuel and other materials needed to mass-produce its built urban environment. As a consequence, the

availability of housing throughout the island diminished (Scarpaci, Segre, and Coyula, 2002). The response to the housing crises of the 1990s arose from a partnership between Cuban civil society and its government (Valladares, 2013). Operated by the NGO Habitat Cuba, the Community Architect Program sought to provide design advice to residents seeking to improve their homes. The Community Architect Program is perhaps the largest effort to integrate citizen-led housing design in any country of the world. Beginning in the province of Holguin and inspired by the ideas of Argentinian architect Rodolfo Livingston, Habitat Cuba pioneered a program through which residents seeking to build, renovate or expand their homes could engage in a collaborative design process: people could build on their own and benefit from the advice of professionals. Two decades since its foundation, the Community Architect Program has grown to employ more than one thousand designers across Cuba (Selma Diaz, personal communication).

Community architects are trained in the application of a sound methodology that integrates residents into the process of designing homes (Valladares, 2013). As a former director of the program mentioned, community architects are expected to act as facilitators here, shedding the authoritarian role that characterized the practice of architecture in the 20th century. Development of a design process that directly engaged residents was needed to provide a service sensitive to the cultural and social needs of clients. During its first years, the Community Architect Program trained hundreds of architects in such a method. This method was the product of a rigorous analysis addressing the ways in which architects interact with clients. One conclusion of this analysis was that architectural programs genuinely reflecting clients' wishes and needs may only be arrived at if clients feel free and encouraged to express their ideas concerning the design of their homes. With this in mind, Habitat Cuba decided that architects would elicit information from clients by playing a series of role-playing games with them. This method for interviewing

clients is described in detail in an article by Valladares (2013) (see Chapter 5). Brant, Messeter, and Binder (2008) explore the use of games in producing design schemes that reflect the wishes and needs of clients, establishing that role-playing activities allow participants to express themselves fully and thus arrive at more equitable design programs. In these spaces, residents can contribute their ideas without being manipulated or directed to make certain decisions by experts, meaning that these kinds of architectural schemes are able concretize the interests of all of those who have a stake in the outcome of the design process. In his book reflecting on the practice of community architecture in Cuba, Rodolfo Livingston (2006) reaches a similar conclusion about the outcome of these game-oriented processes. In my analysis of interactions between architects and residents, I looked at the separate cases of two housing renovations in Old Havana.

Old Havana houses some 60,000 residents. It is an area full of contrasts. On the one hand, the stylish renovation of plazas and public buildings has allowed the district to become a prime destination for global tourism. On the other hand, low-income residents live in overcrowded buildings that are on the verge of collapse. In many ways, Old Havana simultaneously embodies both a globalizing district and a slum (Valladares, forthcoming). An official planning document recognized that upwards of 70% of the buildings in Old Havana are in poor condition. It is not uncommon for residents to inhabit units in buildings that have been declared ‘inhabitable’ by officials. While the spectacle of poverty is present throughout most of Old Havana, planning officials enforce stringent rules about what and how structures can be built. Within this set of circumstances, access to home design services becomes more pertinent, as laypeople require the guidance of experts in navigating the complex landscape of regulations that governs the production of the built environment in Old Havana. The complications introduced by such strict

urban regulations typically lead residents to pursue more informal design solutions. Spontaneous adaptations of the built environment are common among these. For example, building a mezzanine in order to create additional sleeping space is a popular solution among residents of the historic district. Moreover, access to official services is inconsistent for low-income residents. Substandard piping means that some residents must wait for trucks to deliver water which must be carried upstairs in buckets. As many residents mentioned when asked about living conditions in Old Havana, a large proportion of the built environment is "in ruins".

While the Community Architect Program's approach has been hailed as a breakthrough in the fields of planning and architecture, the extent to which the method works, and how the various actors in it assess it strengths and weaknesses, require attention. The particular case of Old Havana suggests that there are several obstacles preventing residents from fully benefiting from its services. By looking at two home renovation projects in Old Havana, as well as low-income residents' perceptions of the work done by the community architects, I identify the strengths and limitations of the approach. The research suggests that participatory design methods need to be complemented by community-based initiatives dealing with other aspects of the housing development process, such as access to materials, construction and construction management. This article lays out the methodology employed; the wider arguments about the need for resident participation in the design process; the findings from the two home renovation projects studied in the field; the assessment of the Community Architect design process; and concluding comments on future directions for 'hybrid' participation-in-design programmes in low income settlements of the developing world.

Methodology

This paper draws on qualitative research conducted in Havana, Cuba over 2013 and 2014.

Research revolved around the following questions: What factors explain the success or failure of projects seeking to assist individuals or families in the design of their homes? To what extent does the Community Architect Program allow lay people to take control over decisions that concern the configuration of their living environments? To what degrees are households in Old Havana satisfied with the services offered by the community architects?

The objectives of the research comprised the following: (a) to document the interaction between community architects and clients during the design of a home renovation; (b) to investigate households' degrees of satisfaction with the services of the community architect program, (c) and, to investigate the ways in which architects and households involved in a participatory design process navigate the regulations governing the reproduction of the built environment in Old Havana.

During fieldwork, data regarding the interventions of community architects was collected during in-depth interviews with both professional designers and residents of Old Havana. Interviewees included the founding director of the Community Architect Program, the national director of the program at the time of the research, three regional directors, community architects employed throughout Havana, three academics employed at different Cuban universities and over sixty residents of Old Havana.

Interviews with officials and scholars were arranged following a 'snowballing' technique, wherein at the end of each interview I would ask interviewees for the names of additional people with whom I could speak. I stopped scheduling new interviews once I stopped receiving novel answers during the interviews. Interviews with residents were arranged through the help of a woman who had internal contact with the community. Additionally, the Community Architect Office of Old Havana provided access to documentation related to home renovations projects

along with the contact information of residents who had participated in the projects. From these, two projects were selected and analyzed as case studies. Data regarding the cases, the housing design policy and the Community Architect Program were collected using several methods. In addition to in-depth interviews, I gathered data through the observation of office meetings, visual evaluation of public, common and private spaces and the analysis of documents and plans. Interviews were semi-structured. I prepared a list of topics that I wanted to discuss and asked questions that brought them into discussion. The questions reflected three basic issues: the processes through which both architects and residents expressed their visions for the future design of living environments, the techniques used to determine the needs and desires of residents and the designers and residents' perceptions of the outcome of the projects. The collected data were analyzed through a comparison of the responses and comments given by residents and designers. As such, I was able to understand the views of both designers and residents.

Self-Help, Community and Progress

In the past, people built their houses themselves without consulting with professional architects or designers (Carmon, 2002). While this has changed in the developed world, in developing countries a large portion of the population still build their own houses without professional assistance (Carmon, 2002; Ward, 1982; Cohen, 1983; Skinner and Rodell, 1983; Laquian, 1983; Perlman, 1987; Patton, 1988; Jiea, 2000). While the necessary investment of time and effort involved in constructing one's own dwelling can be questioned from many points of view, generations of researchers have attached positive attributes to self-help building (Turner, 1977; Turner and Fichter, 1972; Tipple, 1996). Notably, in Latin America and the Mediterranean basin entire districts have been built and progressively upgraded through residents' own efforts.

As a result, these have become areas where people live with higher degrees of comfort (Carmon, 2002; Hall, 1989). Furthermore, some researchers have argued that self-help housing can produce environments that better serve the sociocultural needs of their residents (El-Masri and Kellett, 2001).

Wates and Knevitt (1987) criticize modern mass housing, denouncing its associated ugliness, squalor, congestion, pollution, wasteland, vandalism, stress and its inability to maintain a sense of community for residents. Moreover, modern mass housing has been found to structurally neglect the particular sociocultural dimensions of its geographic setting, thus alienating and isolating residents (Valladares, 2013; El Masri and Kellet, 2001; Eldemery, 2002). In contrast, when people are allowed to select the configuration of their built environment, developments are better able to support the socio-cultural needs of its residents. As stated by Alexander et al. (1977), physical structure must follow the social structure of a community. In a study of self-help housing in the city of Gaza, Gabarin (2002) found high degrees of trust among neighbors. While the same may be said of the relationships between high-income residents, it must be noted that low-income residents equally profit from and rely upon their relationship with their neighbors in many ways. Researchers assessing the qualities of self-help housing have ascertained that successful participation-in-design programs are connected to the cultural suitability of the built environment (Gabarin, 2002). According to Rappoport (1988), when the configuration of the built environment is the product of numerous decisions made by residents over long periods of time, a cultural landscape to which all residents may belong and relate is able to develop. Cultural landscapes can also evolve in professionally designed environments, however it would seem that low-income residents living in informal settlements develop stronger bonds with their habitats and neighbors than those living in mass-produced housing complexes (Carmon, 2002).

According to El-Masri and Kelett (2001), bottom-up approaches that consider the socioeconomic complexities of their habitat are ultimately more sustainable in the development of the built environment. One key element necessary to the successful implementation of projects aiming at the development of communities in the developing world is the transformation of professional attitudes. In the new participatory approaches, the architect and the planner are understood as 'facilitators' rather than experts possessing unquestioned power (El-Masri and Kellet, 2001; Oliver, 1987; Serageldin, 1997). Many have advocated for a participatory turn in which complex decisions related to all dimensions of development (not simply the physical) are considered. These include: opportunities for socializing, job creation, access to services such as health and education and adequate public transit. (IDNDR, 1996; Cockburn and Barakat, 1991; Aysan and Oliver, 1987; Landewijk and Shordt, 1988; Anderson, 1985; Cuny, 1983; UNDRO, 1982; Davis, 1981).

In a paper exploring degrees of community participation in urban anti-poverty projects, Arnstein (1969) proposed her 'ladder of citizen participation'. Arnstein's ladder was adapted by Marisa Choguill (1996) to describe levels of participation in projects undertaken in developing countries. According to Lizarralde and Massyn (2008), the ladder of community participation remains deeply relevant when evaluating housing projects in the developing world. Further, researchers have found that different degrees of participation persist at different stages of a project, such as management, design and construction (Da Silva, 1980). In a study seeking to assess participation in housing projects in developing countries, Davidson et al. (2007) concluded that while community participation has been widely advocated by development agencies, activists and researchers, there is no agreement over what specifically distinguishes 'community participation'. Similarly, research trying to establish a more critical view of

participatory design has identified obstacles in the process, such as the difficulty of maintaining trust between program beneficiaries and granting agencies (Lizarralde, 2008), reluctance on the part of governmental bodies to give power to low-income residents (Ishmail, 2005) and frequent reduction of the use of sweat equity in the construction of housing units (Davidson et al, 2007).

In the view of community participation advocates, participation is an end in itself; their goal in pursuing participatory design processes is not simply to increase project performance but rather to empower communities (McEwan, 2002). Daniere, Takahashi, and Narangon (2002) have concluded that the strengthening of community ties facilitates the implementation of development projects. Resident participation has been proven to be beneficial to projects seeking to improve the urban habitat as a whole, including the provision of public services such as water, electricity and sewage (Das and Takahashi, 2009). Thus, it has been argued that a central objective of participatory housing and anti-poverty projects generally must be to strengthen and empower communities (Choguil, 1996; Carmon, 2002). This said, I question the capacity of the Community Architect Program to ignite change and improve the living environment of low-income residents in Old Havana. I question whether improvements to the habitat can truly be achieved by working with individuals and families on a case-by-case basis, as opposed to processes that engage with the community as a whole. Such claims must be explored based on the stories of those directly involved in the design process and habitation of the resulting structures.

Stories of Success

This section presents data obtained during interviews with residents and architects in Old Havana. The data reflects the divergent opinions on the community architects' work. On the one hand, residents who participated on renovation projects with community architects expressed

high degrees of satisfaction. On the other hand, low-income residents expressed mistrust towards architects, who are seen as figures of authority.

Project in Villegas 301 - The first project involved the reconstruction of a building façade on Villegas Street (see Fig. 6.1). Over the course of the renovation, the community architect maintained frequent communication with his client. Upon its completion, the client was highly satisfied with the reconstruction. This project offers evidence that participatory design techniques may lead to the development of more comfortable homes. Details are as described below.

Figure 6.1: Housing renovations by community architects – before and after

In 2011, the resident involved in this project decided to approach the Community Architect Office of Old Havana since he had been having problems legalizing the papers for his home. He had built an additional room on the roof of his house and its modern styling apparently disrupted the harmony of the colonial style of the surrounding units. As a result, the Commission of Monuments had him the stamp required to legalize his property. As a community architect mentioned:

> It was a project for the remaking of a façade. The style for the second floor was clashing with the surrounding environment. It did not respect the style of the neighboring structures. The client came to the Community Architect Office

because he could not legalize the property. He was having problems with the Monuments Commission.

The design process started following a home visit from the community architect. At this point, the resident recalls the architect conducting an interview with him. During this interview, the architect collected information about the resident's wishes and resources. The architect also measured the building. The house's first floor was approximately 120 meters squared and the second floor measured approximately 40 square meters. The measurements were then used to produce an initial blueprint. The client commented:

> The architect came to the house and did an interview with me. He wanted to know things like what I wanted to do with the house and the resources I had for construction. He also measured the house and we discussed some ideas for it.

The architect mentioned that in his experience people are already aware of their needs prior to meeting. He commented:

> In my experience people already have a pretty good idea of what they need when they come to talk to us. They have already seen the requirements to satisfy the urban regulations. Also, if they come to us it is because they want to do something in particular.

In the case of the Villegas project, the client's need was to rebuild the second floor façade in a way that would not disrupt the harmony with its surroundings. In addition, the client requested the second floor be expanded and an extra room be constructed. The resident commented that during the interview the architect "cared about his needs." He added that the architect guided him by telling him what was required in order to receive the approval of the Monument Commission. However, the architect did not dictate defined solutions. Rather, his role was to provide guidance

and to explain why the Commission was denying the legalization of the property in a friendly manner. He commented:

> The architect was very useful. He was sensitive to my needs along all the way. He was knowledgeable about my needs and told me what had to be done. He was not authoritarian or anything like that; rather, he explained to me what was required in a friendly manner.

In his studio, the architect drafted three distinct blueprints. The project task was to elevate the walls of the house by approximately four meters, as shown in the picture above (see Fig. 6.1). The walls included some hollows imitating windows that would harmonize with the façade of neighboring buildings and provide natural light for the upper floor.

I asked this resident the key question of whether he was presented with choices during the design process. He confirmed that throughout the process the architect was very sensitive to what he wanted for the building and prepared different solutions from which he could choose. The resident felt that his opinions were always incorporated as part of the design process. He mentioned that owning a computer was essential to the success of the project. The architect prepared renderings of the different design proposals and through the visualization of these proposals he was enabled to make choices. He commented:

> Yes, I was presented with different choices during the process. The architect prepared different drawings on the computer and I could choose the one I liked the best. He brought 3D pictures on a flash drive and we uploaded them onto the computer. It was easy to see what was being proposed. It was very nice.

After the resident selected a design, the construction was completed within one year. The resident's elevated economic status allowed him to hire professional assistance in carrying out

the renovation. It is difficult to note the difference between the features of the façade installed before and after the project and the house is definitely well integrated into the surrounding built environment. The Monuments Commission approved the project, meaning the resident was able to legalize the property.

Project in Compostela 409 - The second project I analyzed was located on the second floor of a building constructed at the end of the 19th Century (see Fig. 6.2). The clients wanted to expand the surface area of their house and build a room to rent for tourists. They presented this project to the Monuments Commission of Old Havana, however it was rejected because it violated building regulations. Their project required the rooms behind the building's façade be renovated and according to the stringent regulations of Old Havana, no construction work should be performed directly behind a façade. Following the decision of the Monuments Commission, the residents requested the services of the Community Architect Office of Old Havana.

Figure 6.2: Interior balcony – renovation by community architects & residents

The Community Architect Office assigned the project to an architect that had been working there for only a few months. Previously, he had been employed at a firm working on State-commissioned projects. Referring to his new position, he commented:

> It is very challenging. Here, at the Community Architect Office we interact a lot with clients. It is not a job where you just go into the studio and design. Here the mandate is to design with clients. You have to be very careful when you communicate with them. You must not upset them. You have to explain everything very carefully and make sure that they understand the urban regulations that are affecting the project. It is not easy.

The project was complex since, according to urban regulations, nothing must be built in the rooms directly behind a façade. To begin, the architect visited the house to collect all the preliminary information he required for the project. At this time, he measured the home's dimensions and interviewed the residents. During the interview, he elicited information regarding the couple's wishes and needs. The family was anxious to expand their home and have a room to rent to tourists.

During the interview the architect stated that although he had not read Livingston's book – the text through which community architects receive their training – and otherwise does not scrupulously follow all the prescribed steps of the community architect method, it is nonetheless possible to maintain the spirit of participatory design if one listens carefully to a client:

> I have never read Livingston, I must confess. But that does not mean that what I do is not participatory design. The key lies in how you approach clients. How you listen to their wishes and elicit information from them.

The community architect proposed that the homeowners build a mezzanine level that could accommodate the addition of another room as well as a toilet. The ceilings in the back rooms of the house were high and would allow for the construction of a mezzanine. The lower level of the mezzanine would be used as a living room and a kitchen (see Fig. 6.2). The architect commented:

> It took me about a month to come up with the proposal. I designed a mezzanine. The upper level is a room and a toilet. The lower level is a living room and the kitchen. One thing I did not like about the project was the lack of natural light in the room. But there was nothing I could do to change that. I presented the proposal to the clients and they agreed with it.

In relation to the communication and the presentation of the proposal, one of the residents mentioned:

> He presented us the blueprints. The blueprint had numbers. Each number was a function. That is how things were explained to us. It was really easy. He also handed in a list of the materials that would be required during the construction. It was great!

When I asked the resident whether she was satisfied with her interactions with the community architect she responded affirmatively, stating that he had been very helpful and always seemed very confident in the success of the project.

> The architect helped us a lot. He always seemed to know what was required. He prepared the proposal within a reasonable timeframe. He always showed a lot of interest in our opinions and interests and did what we wanted. I was very satisfied with his work.

I asked the resident if she believed they were presented with different choices during the design process. She said that the architect had adequately explained the challenges and the obstacles involved and that he always put forth choices that were within the margins of what could be done. The resident stated that at the beginning of the project they discussed several different alternatives, meaning she could pick the one she liked best.

> Yes, the architect was very careful in explaining to us the problems that we could encounter and the possible solutions. Everything was explained in a simple way so that we could understand what was going on. The architect definitely presented us with different alternatives about what could be done with our house.

I asked the community architect whether he felt that part of his role was to ensure that people made more informed design decisions. He responded positively, saying that part of his job was to educate people about what can and cannot be done. The architect stated that no project can ignore urban regulations and as a result it is necessary to properly explain them to clients. He commented:

> Yes, we try really hard to make sure that people understand what is going on and how the different alternatives in the project might affect them. We explain in detail what can be and cannot be done. It is part of our job as community architects to educate people. You have to guide them through the different stages of the project. But at the end, I think they end up making more informed decisions.

The resident commented that during the planning stages the guidance of the architect did help her to make informed decisions. She mentioned that the key to the project's success was the architect's ability to communicate in an efficient way with her and her husband.

The residents carried on with the construction themselves. They could not tell me how much they spent on it since the renovations were performed in a gradual manner. They would save some money and then carry out a portion of the construction; the project proceeded in this way for six months. The female partner mentioned that they hired specialized labor for the construction.

Finally, the residents were satisfied with the service provided by the community architect. They attribute their project's eventual approval by the Monuments Commission to the help of the architect.

Stories of Failure: Community Perceptions of Community Architects

I complemented my analysis of these two participatory design intervention case studies by asking residents of Old Havana about their perception of the services provided by the Community Architect Program.

The majority of the interviewees of this latter study were low-income residents. A woman operating a cafeteria in the area introduced me to the interviewees. In general, respondents had a negative perception of the architects and their work. When asked directly how they perceive the community architects, many residents mentioned that they thought of them as useless. Many of their answers reflected the fact that the aid provided by community architects would not help them to repair or adapt their dwellings. Low-income residents expressed a negative perception of the community architects. These shared opinions additionally reflect the bureaucratic barriers in place inhibiting them from reaching the architects, the lack of access to building materials, the unreliability of the architects and the limitation of the singular approach taken to design. The commentaries were numerous and largely consistent, as exemplified by the stories recounted below.

A 78-year-old woman living in an apartment she owns said that she had attempted to request the services of the community architect in repairing her dwelling. She stated she had paid for her dwelling following many years of hard work as a seamstress in a workshop in Old Havana. She commented that the process of attempting to contact a community architect was complex and confusing. She mentioned:

> I really have not taken care of that. You go one day and they send you there. Then they send you somewhere else and then somewhere else. You despair and lose patience. I think the architects are not helpful for anything.

In addition, this resident noted that on one occasion the Cuban government had promised to give her materials to fix the ceiling of her house, yet in the end she was not given anything. She and her family were forced to carry on with the repairs without help.

Another woman complained about the fact that the services provided by community architects do not facilitate access to materials:

> Here not a single brick has been given. What you see has been done with the little money that we earn. All is the product of my own efforts. They came to measure. They told us that they were going to give us materials, but they did not give us anything. They have not helped us at all.

This resident further observed that the services provided by the community architect are useless. She also stated that she and her family live in a legal limbo as they lack permanent tenure in the building they inhabit. They expressed confusion which government agency might be able to address and fix their situation.

A woman who has resided in Old Havana for the last 14 years reflected upon the difficulties of improving and adapting her home. Living in the back of a *solar*, she and her husband rebuilt a

wooden shack using salvaged materials. She argued that the process of building this dwelling was slow. Often they had to interrupt it due to a lack of funds for purchasing materials or the time to complete the construction. She noted:

> A bag of concrete is selling at 100 Cuban pesos. Each brick costs 10 Cuban pesos. We have spent over 1,000 dollars on the whole construction and we are not finished yet. We had no experience or knowledge about how to build. We had to learn in the process. No one helped us. Everything has been done through our own efforts. It has been a drama.

When I asked her whether she required a permit for construction, she said that she did indeed need one but required the help of a community architect to acquire it. However, she felt disappointed with the services offered by the community architects. She observed:

> The problem is that if I go to the Community Architect Office they say that they are going to come, but then they do not. How am I supposed to get the permit? Things do not work the way they are supposed to.

This resident noted that all the housing units in her *solar* had been declared uninhabitable by the local government. This designation indicates that they will be scheduled for demolition at some point in the future. While demolition cannot proceed until all the residents of the *solar* are offered an alternative housing option residents still face uncertainty and a lack of security concerning their futures. Community architects do not have the power to help the residents that find themselves in such a legal limbo. For this reason, these residents see no point in requesting the services of the community architects.

Conversely, a janitor working at the Office of the Historian of Old Havana expressed having an exceptionally good experience dealing with a community architect. Despite his low-income

status, he has been able to rebuild his house by replacing its wood structure with bricks and concrete. In order to make these changes, he requested the help of the Community Architect Office:

> The house was all made out of wood. An architect came and made me a plan; he told me how to do things. Then, I went to buy materials. I got them for half the price. The architect helped me with that also. During the construction some neighbors helped me. We all helped each other with our houses. That is how I built the toilet, the room, the stairs, the kitchen, the mezzanine, everything.

It remains unclear why this resident managed to successfully adapt his living environment while others in his income bracket could not. It is possible that his professional proximity to decision-makers working at the Office of the Historian facilitated the process. His case is certainly an exception in the context of Old Havana since most of the residents I interviewed expressed frustration towards their homes and the difficult process of adapting them.

Another resident employed by the company that manages water distribution in Cuba also rebuilt his home by replacing wood with more durable materials. However, he has a family and his home has only one room; they are overcrowded. I asked him if he has ever requested the help of a community architect. He observed:

> The architects come and measure here and there. They draw a plan of your house. Then they leave and never come back. They do not help you.

Another Old Havana resident sharing a two-room apartment complained about the condition of his home. He shares the house with his niece, mother, uncle and sister. They lack privacy and are overcrowded. This resident mentioned that a community architect had visited his house. Reflecting on the experience, he commented:

> The architects come and look around. They tell you that they are going to fix things but at the end they never came and nothing was done. They do not give you anything; you have to buy materials in the market. You have to pay full price for them. I do not have the money to buy the materials and my house is in ruins.

While showing me his house, this resident complained that the roof leaks water when it rains. The walls were full of stains. They also lacked a proper shower and instead have to use buckets to bathe.

A middle-aged woman who has been living in her apartment in Old Havana for the last 38 years shared her experience and opinions about her housing conditions. She showed me a room that was used by three different families to cook and bathe. There was a hole in the floor that was big enough that a person could fall through it. They had covered it with a wooden board. She told me that community architects had visited her building in the past. She had a rather negative view of their work, saying:

> Community architects have been here. They come and they look around. They measure but then nothing happens. They do not fix anything. You have to fix things on your own, with you own means. All is falling apart. They have declared this building 'uninhabitable'.

While this resident has a job, she only makes 400 Cuban pesos per month. She said that the money she earns is not enough and has no alternative source of income. She lives in poverty.

The testimonies offered by these residents suggest that there may be something missing in the approach taken by the community architects. While assisting residents with the design of their homes and providing plans and sketches may create positive outcomes for certain residents, it is clear that assisting with design alone is not enough to solve all the issues surrounding

housing. In contrast with the other people I surveyed on Cuba Street, the resident who had received aid with design, discounted materials and assistance with construction appears to be the only interviewee fully satisfied with the services of the community architects.

These statements represent only a small portion of the data I was able to collect in Old Havana. Throughout the research, low-income residents expressed a mix of frustration, mistrust and a lack of interest in the services provided by community architects. The results of the survey I performed in Old Havana contrasts with the opinions of those residing in houses that the Community Architect Office of Old Havana suggested I analyze.

Participation and Human Development in Globalizing Districts

The governance of cities has been profoundly affected by three separate but related shifts in the international scene: globalization, decentralization and democratization (Devas, 2004). Despite their socialist development models, Cuba and Old Havana are no exception to these global forces. Globalization and the need to capture revenue in foreign currency have shaped the politics of the island and its vision for the historic district. Despite official claims asserting a social dimension to the project, the multi-million dollar redevelopment project of Old Havana has systematically prioritized economic growth over social development.

According to Devas (2004), the forces of globalization may undermine governance as cities compete to offer better facilities, lower taxes and easier regulatory regimes in what has sometimes been described as 'the race to the bottom.' In these cases, decision-makers become more concerned with the interests of investors than the needs of citizens. Projects designed to attract capital and foreign investments usually have deleterious consequences for the urban poor. Notably, low-income residents in Old Havana have a negative opinion of the institutions managing the development of the built environment including the Community Architect

Program, a project with the mission of aiding residents and producing better living environments. Stringent urban regulations, which are meant to develop Old Havana into a major hub for tourism, seem to impede average residents from benefiting from the services of community architects.

The cases of Old Havana and, in particular, the Community Architect Program in the historic district raise questions about the nature of participatory approaches to urban redevelopment and their link to social development and justice. Citizens' participation in the decision-making process has been globally promoted and identified as a key component of projects aiming at improving the quality of life of residents (Buckley and Kalarickal,2005). However, participation is not enough to insure improvement in the quality of life of those with the lowest incomes (Crook and Manor, 1998).

Moreover, the case of old Havana calls into question the notion that economic growth necessarily translates into a trickle down of benefits for lower-income residents (Grant, 2004; Watkins,1998). The case of Old Havana demonstrates that addressing inequality requires more than merely promoting economic growth. A nuanced approach is necessary in order to ensure that the productive assets of the poor are developed and utilized (Grant, 2004). The data presented above illustrates that in Old Havana only those with elevated economic resources and human capital are able to utilize the services of the community architects in improving their homes and transforming them into assets able to generate revenue from the increased tourism in the area.

On the other hand, these stories of failure suggest that scholars who have argued that participation empowers communities (McEwan, 2002) and that strong communities better facilitate the implementation of urban projects (Daniere, Takahashi, and Narangon, 2002) are

right. Without a strong community already in place, participation-in-design projects that are the product of the good will of liberal architects and planners will fail to ignite the kind of collective responses that are needed to upgrade the habitat as a whole (Das and Takahashi, 2009). Thus, it has been argued that the objective of participatory approaches to housing and anti-poverty initiatives must be to strengthen communities (Choguil, 1996; Carmon, 2002). Castells, among others, highlights the ways in which the State individualizes its relationships with citizens, weakening their collective practices to reinforce its own power (Castells 1983; Dreyfus and Rabinow 1982; Rabinow 1991). While the Community Architect Program promotes participation, it only addresses residents' needs on a case-by-case basis. Only through truly collective processes can communities successfully negotiate with the State (Satterthwaite and Mitlin, 2014). This is particularly true in the case of renovations of buildings containing multiple housing units, such as the *solares* of Old Havana. Burra, Patel and Kerr (2003) identify some of the reasons why authorities are reluctant to facilitate real participatory approaches based upon strong connections between citizens at a grassroots level. According to their work, many politicians have opposed community-managed processes, removing from citizens' control a key part of the patron-client relationships through which they sustain their political careers. Community management also goes against the long and dishonorable tradition of contractors, engineers and councilors getting a cut from these kinds of projects, often through inflated cost estimates. Also, within the context of the redevelopment program of Old Havana, it is evident that authorities are reluctant to share their power and include residents in the decision-making process (Nacimento, Salomao and Hardy, 2009). The few cases in which individual households have successfully participated in redesigning their homes suggest that the Community Architect Program has a limited impact on the community. At the same time, the evidence presented

suggests that some of the obstacles faced in implementing participatory programs identified in the literature are present in Old Havana. These include barriers in the construction of trust between program beneficiaries and granting agencies (Lizarralde, 2008), reluctance on the part of governmental bodies to share power with low-income residents (Ishmail, 2005) and frequent reduction of residents participation to the provision of labor in the form of sweat equity (Davidson et al, 2007).

Successful participation schemes that effectively reduce urban poverty have at their center a wish to cultivate experiences, skills and capabilities at the level of both the individual and collective (Satterthwaite and Mitlin, 2014). Whitehead and Gray-Molina (2005) look at the development of political capabilities and organizational resources that may bring the community together in urban projects. This development of political capabilities is partially absent in Old Havana, where low-income residents perceive the institutions that are supposed to mediate between residents and the State with mistrust.

Low-income residents and Urban Regulations

Rather than encouraging amateurs to adopt the approaches of the professional, self-help and community development is all about responding to what the everyday people are doing anyways (Satterthwaite and Mitlin, 2014). Across the developing world, many liberal architects and planners have sought to build upon grassroots energy and creativity with participatory design programs. These professionals helped legitimate more affordable and less exclusionary housing policies and programs, including both serviced site programs and upgrading programs. However, the good intentions of these community-oriented professional may collide with authorities and their visions emphasizing economic development and growth. There is an inverse correlation

between the restrictiveness of the urban regulations and the success of participatory approaches. This is particularly true in areas that have been identified as priorities such as Old Havana.

There is a need to develop programs that balance the visions that authorities have for cities and the degrees to which low-income residents are allowed to participate in decision making processes. Further, researchers have found that different degrees of participation are necessitated at different stages of projects, such as management, design, and construction (Da Silva, 1980). My research supports this notion. Notably, my research suggests that citizens' participation in urban projects is a power-based process with a series of urban regulations to which all must respond at its center. One of the reasons why the Community Architect Program and its participatory approach seem to fail in its facilitation of home redevelopments for low-income residents is the existence of the strict urban regulations of Old Havana. In face of such restrictive urban regulations, residents of Old Havana have turned to informal means in making adaptations to their dwellings without consulting with community architects or conforming to urban regulations.

The few stories of success presented above are a good example of the virtues that participatory design advocates have argued in favor of for a long time. These aforementioned home renovations were planned in a way that allowed households to make progress at each step of the renovation process (Alexander and Center of Environmental Structure, 2002; Turner, 1968, 1977; Turner and Fichter, 1972; Tipple, 1996). In these cases, the customized designs provided by community architects led to the production of housing units that fit better with the socio-cultural needs of residents (El-Masri and Kellett, 2001). Further, these new design were intended to allow the households to utilize their homes as a financial asset and raise additional revenue. However, a lack of support in terms of labor and materials and the restrictiveness of

urban regulations prevent low-income households from profiting from the services of community architects to the same extent as those with higher incomes. It has been noted that financial support and technical assistance are both required in designing and constructing suitable housing units (Gilbert, 2000; Lizarralde, 2015). Only through the establishment of more flexible housing standards can communities develop housing that fulfils the needs of different target groups, including those with lower-incomes. Lizarralde (2015) discusses the benefits of urban regulations and building codes that support a variety of standards. These possible benefits include: filling housing gaps, facilitating the mobility of those with low-incomes, augmenting the possibility of progressive adaptation and expansion of housing units, increasing the diversity of plot sizes and configuration in order to attract a variety of households and the decreased stigmatization of certain neighbourhoods. However, elevated standards may lead to situations in which new housing units experience an increase in their market value, causing displacement of low-income residents (Lizarralde, 2015). According to their testimonies, many low-income residents in Old Havana fear being displaced from the historic district. High standards and restrictive urban regulations do not allow low-income residents to build houses according to their particular needs and capabilities.

Conclusion

When evaluating the degrees of success with which community architects provide services to the community, evidence from Old Havana displays mixed results. Low-income residents' inability to follow-up on what is designed in partnership with community architects may be an issue particular to Old Havana. Scholars from different regions of Cuba have suggested that the case of Old Havana is a unique one. Old Havana has very few detached single-family homes and instead most of its population resides in apartment buildings or *solares*, a form of housing

characterized y small-sized units and poor environmental quality. Actions taken by individual residents to improve the built environment therefore have a limited impact, as the repair of housing units require the coordinated effort of all residents of a building or a *solar*. As community architects provide their services to households, there is not much that they can do to solve issues that concern all the neighbors living in an apartment building or a *solar*.

While residents with higher degrees of cultural, financial and social capital have been able to use the services of the Community Architect Program to their benefit, the majority of the residents of Old Havana – many of whom live in poverty – do not perceive community architects to be of much help in improving the quality of their housing units and the lives at large. Only by examining the dynamic elements that the renovation of a housing unit presupposes may we understand the roots behind the strengths and limitations to the supports that are available to residents in Old Havana. As discussed above, residents seeking to upgrade their built environment must navigate through the many different aspects that the renovation of a home necessitates. Design decisions are only one of the elements integrating the process of building a house. Other aspects of home renovations including access to materials, compliance with urban regulations, provision of labor and the availability of appropriate financing play a decisive role in the success of home renovation processes. While the Cuban approach succeeds at providing advice about design decisions in a way that may be accessible to residents belonging to all income brackets, evidence collected during fieldwork suggests that those with less financial capital cannot successfully renovate their homes since they cannot afford adequate materials or hire specialized labor. The lack of any suitable financing schemes, such as a small loans program, is also a major concern within the context of the Cuban approach.

Finally, the stringent urban regulations in place in Old Havana oblige residents to spend more money on renovations in order to build homes that comply with building codes. The public vision for the redevelopment of Old Havana makes it more difficult for low-income residents to build according to their needs and potentialities. The evidence presented in this chapter suggests that the success of participatory approaches to home design depends profoundly on the financial resources of a household.

Chapter 7: Conclusions

This dissertation exposes the reader to four different pieces. Together these pieces tell the story of how changes in the urban environment are propelled and perceived at different levels by different actors. The redevelopment of Old Havana embodies the power relationships situating the Cuban State and its citizens, illustrating how an authoritative vision of change may be imposed onto a historic residential district. It additionally illustrates the ways in which laypeople, especially those with low-incomes, struggle to produce their living environments using the limited means available to them, sometimes disobeying land use regulations, building codes and property rights.

The Cuban State's gamble on transforming Old Havana into a major hub for international tourism has advanced slowly in the past two decades. These government-led plans reveal a new trend in which a socialist state is planning and implementing public projects in order to expand its economy. While the redevelopment of Old Havana has created jobs, improved public spaces, developed some housing and partially financed free education and healthcare for all Cubans, it also carries with it several issues related to equity and fairness. For example, a bartender working in Old Havana can make as much as ten times the salary of a doctor employed by the State. At the same time, contrary to what one would expect from projects driven by an 'authentic' revolutionary government the redevelopment of Old Havana is completely disconnected from any grassroots sociopolitical movements. Indeed, top-down approaches to policy, programs and projects have come to occupy a dominant position in Cuba as its economy gradually recovers from the shock and paralysis that followed the collapse of the Soviet Union and the island's loss of trading partners in Eastern Europe.

Recapitulation of Findings

The advancement of the redevelopment project of Old Havana has not only introduced physical changes into the district's built environment but has also altered residents' perceptions of the neighborhood. In the third chapter of this dissertation, I argue that two different and sometimes antagonistic building systems are present in Old Havana. I also argue that by borrowing elements from these two systems, a third 'hybrid' approach has evolved. This 'hybrid' approach is also the result of a system trying to adapt to a new economic reality.

This new 'hybrid' approach may provide support to some residents seeking to improve their living spaces. However, an underlying conflict between low-income residents and authorities permeates Old Havana. The ways in which authorities articulate their vision for the renewal of the historic district raise further questions related to equity and fairness. For example, in official documents (Plan Maestro, 2010) the government acknowledges that as different sections of Old Havana are being redeveloped a portion of those dwelling in *solares* will have to leave. At the same time, the reactivation of the real estate market, which was suppressed in the early days of the revolution, poses a threat those who do not hold official or extended tenure of their apartments. These pressures are similar to what others have experienced while residing in informal settlements in the developing world, particularly those found in relatively central locations that are now being targeted for redevelopment by capitalist real estate developers (Desai and Loftus, 2013). It is expected that in the near future Old Havana's population will become less stable, as some residents will move in and others will move out.

My data and analysis reveal that those who fear displacement most bear only limited resources for resistance. Grassroots organization that emerged during the early days of the revolution, such as the *Comités de Defensa de la Revolución* or *Federación de Mujeres Cubanas*,

are now under control of the socialist party. Those residents who are threatened most are those with the worst living conditions, generally inhabiting substandard housing units that have been declared 'inhabitable' by authorities. According to many, this relation is the result of a conspiracy in which the government has systematically neglected the poor conditions of the *solares* to the point of collapse. At this point, inhabitants have no other option but to go to live in one of the shelters located at the periphery of Havana. The remains of *solares* are then demolished and the land is vacated and reallocated for the construction of a restaurant, bar, boutique or a hotel. These testimonies must be analyzed within the Cuban context, wherein the State is a primary developer and not merely a mediator between developers and residents (Scarpaci, Sergre, and Coyula, 2002). In this context, residents do not have the means to challenge decisions that have an impact on their own communities. It is argued that the decay of the *solares* is not the result of a conspiracy but a nation-wide strategy seeking to direct investments to other geographical areas of the country.

While there are no community organizations working at the grassroots level in Old Havana, citizens seeking to improve their living environments often contest urban regulations by carrying out small-scale adaptations for which they lack the appropriate permits. The production of *solares* lends a quality of informality to the historic district, one of the characteristics typical of low-income settlements in the developing world. This informal character is not simply limited to the way in which residents approach the production of their built environment. Without the adequate permits or paying the appropriate taxes, residents of Old Havana equally engage in informal economic activities such as cooking and selling candies, trading clothes or art and even begging tourists for spare change. All of these activities are barely tolerated by the state.

Informal conversations with residents of the historic district suggest that the vision of Old Havana possessed by authorities involves a desire to segregate average Cubans from tourists, limiting locals' access to spaces that have been designed for international visitors. Governmental attitudes towards the urban poor in Old Havana reflect the greater 'war' that some cities in the Global South have waged on informal settlements (Huchzermeyer, 2011). In Old Havana, the police have developed a sophisticated surveillance system aimed at segregating tourists from common Cubans. A network of CCTV cameras connected to the police headquarters has been installed to deter residents from approaching tourists. Those found to be interacting with tourists may be sent to prison under harassment charges. Cubans seeking to profit from the money spent by tourists must therefore come up with all sorts of elaborate measures to avoid detection by the police. Residents of the historic district see this system of public surveillance as a way of keeping them isolated from the rest of the world and an attack on their personal freedom.

The fourth chapter of this dissertation focuses on the ways in which urban change in Old Havana is perceived by its residents. This chapter presents a qualitative study of residential satisfaction in the historic district. It was noted that the redevelopment project has had a profound impact upon residential satisfaction, especially in terms of residents' evaluations of their expectations for the future (Mudege and Zulu, 2011). Residential satisfaction is studied here as a dynamic construct, one that varies over time.

One of the significant findings of Chapter 4 is that residential satisfaction and perceptions of change are closely linked to an individual's level of cultural and economic capital. People possessing a university degree or English-language skills believe that Havana's growing tourism industry will benefit them and provide further opportunities for profit. Conversely, those with less education or professional skills view the evolution of the historic district with fear. As the

study demonstrates, these citizens do not see themselves having a place in the future vision for Old Havana authored by authorities. At the same time, it is possible to suggest a link between the type of dwelling and residents' perception of their ability to improve their housing condition. Notably, those living in buildings comprising multiple units have less opportunities to mend their living environments.

It is remarkable that almost no residents of the district articulated a desire to leave, no matter their individual background. People expressed the belief that their quality of life would be negatively affected were they to be displaced to one of the mass-standardized housing estates developed on the periphery of Havana, such as Alamar. This sentiment is linked to the many factors I came across the in-depth interviews I conducted with residents. Many commented that their attachment to Old Havana was associated with the high levels of social support available through the rich networks of friendships and companionship with neighbors. In these terms, a remarkable finding of this study is that social networks can outweigh the physical conditions of a housing unit as a determinant of an individual's experience of residential satisfaction. In many ways, the organization of public, semi-private, common and individual spaces in Old Havana provides fertile ground for neighbors to socialize. At the same time, many interviewees commented that they appreciate the fact that everything in the district is accessible by foot. Cuba's political suppression of middle and upper class lifestyles has meant that there are almost no cars in the streets. Visual observation confirms that the streets of Old Havana, both those that have been renovated and those which are dominated by *solares*, serve as significant meeting points for residents, acting as playgrounds for both children playing baseball and adults playing dominoes. Entire families spend afternoons on building ledges socializing with their acquaintances.

During an informal interview, a Cuban scholar pointed out that those who witnessed the first days of the revolution and can therefore compare the reality of Cuba before and after the rise of socialism in the island have a more positive view of their living conditions and express higher degrees of residential satisfaction compared with other Cubans. Notably, they refer to the fact that while the revolution could not build palaces for everyone, the most severe degrees of poverty have been eradicated in Cuba.

Following the collapse of the Soviet Union Cuba experienced the *Periodo Especial*, a time when industrial production was crippled due to a lack of access to fuel and other materials. The country's GDP fell drastically and the citizens found it harder to satisfy their basic needs. Industrial production of housing units slowed down, meaning the stage was set for experimenting with novel approaches to providing shelter for those in need. The fifth chapter of this dissertation documents the evolution of one of these initiatives seeking to improve housing conditions, the Community Architect Program. The program implemented new processes, transforming the way in which design decisions are made. It also introduced different building technologies and sought to promote the use of indigenous materials.

Chapter 5 documents the development of a sound architectural methodology aiming to bridge the gap between policy and practice. Such a method redefines the role of the architect as a facilitator seeking to aid households in making their own decisions about the configuration of their living environments. In other words, the Community Architect Program is one of the most extensive participatory design projects in the world.

Research identified six principles guiding the work of the Community Architect. These are:

(a) all involved must possess thorough knowledge of the site,

(b) all household members should participate,

(c) households must understand and articulate their spatial needs,

(d) households must realistically assess their capacity to engage in the building process,

(e) households must guide the design work and

(f) residents must be offered choices and provided with custom-tailored technical advice.

The Community Architect Program's methodology presents a breakthrough in the landscape of architecture and urban planning. Their codification of a participatory design methodology breaks with the traditional authoritarian way in which designers typically make decisions for clients.

In many ways, the role of community architects has evolved and they now act as mediators between the city and its residents. They often commented that their job requires they explain building codes and zoning by-laws to clients. As a result, the creativity of families is constrained by urban regulations. However, the community architects develop means of navigating through these restrictions and guiding their clients through the difficult and complex process of designing living environments that respond to their particular needs.

The sixth chapter of this dissertation evaluates the work done by the Community Architect Program of Old Havana. Through the use of interviews and two case studies, data gathered from architects and residents suggested that while the Program has had undeniable achievements, the provision of assistance with design alone is not enough to aid citizens in holistically improving their living conditions. This is particularly true in the case of those who possess fewer economic resources. For the majority of the inhabitants of Old Havana, the services provided by the community architects remain marginal. Many consider the community architects to be no more

than simple civic inspectors. While community architects may have the best intentions, they do not have the tools to confront the local bureaucracy. The limited success of the Community Architect Program in Old Havana may be explained by the desire of top officials to keep control of the scant resources available to develop the built environment.

This said, the research does provide data on two successful renovation projects. In these cases, household income allowed for the hiring and contracting of specialized labor. Moreover, both projects were completed with the goal of constructing additional rooms to rent to tourists. Here the architect and their clients were successfully able to draft design proposals that responded to the family needs and while equally conforming with the stringent building codes of Old Havana.

This research illustrates how the Community Architect Program in Old Havana is defined by both failures and successes. These varying experiences are closely determined by the levels of financial and cultural capital possessed by residents. For low-income residents, community architects are seen as figures that cannot provide comprehensive solutions to their housing situations. While the Community Architect Program embodies a model of participatory design that generations of researchers and granting agencies have advocated for (Lemansky, 2008; Choguill, 1996), their approach cannot entirely succeed without the provision of other building elements such as assistance with materials and construction.

Overall comparisons drawn from the research is summarized in Figure 7.1 below.

	System A Bottom-Up	System C Hybrid	System B Top-Down
Financing	Step by Step Financing	Step by Step Financing	Financing through Official Banking
Building Technologies and Materials	Assembling non permanent materials	Permanent Materials	Permanent Materials
Design Decisions	Uninformed decisions by residents	Decisions by residents and architects	Decisions by professional designers
Urban Regulations	Trespassing of regulations	Compliance with regulations	Compliance with regulations
Labor	Sweat equity	Professional Labor	Professional Labor

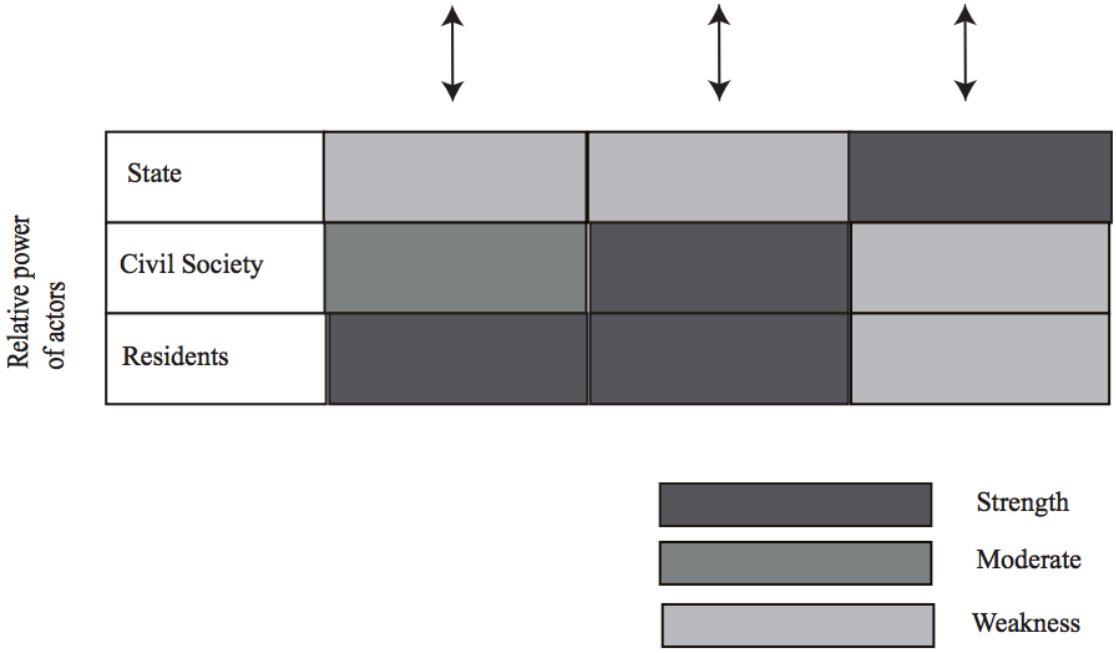

Figure 7.1: Overall research results

Cross-cutting Themes

Each chapter presented in this dissertation deals in one way or another with change. Specifically, they discuss how change in Old Havana, and in Cuba more broadly, is imposed by authorities and perceived and sometimes resisted by residents.

Change in Cuba over the past two decades has borne two different faces. On the one hand, change has been imposed from above, in a top-down fashion. Such is the case in Old Havana, where Cuba's highest authorities have identified an opportunity to attract tourism and expand the country's economy. Through the implementation of an ambitious redevelopment program, authorities have upgraded public space, fixed buildings and promoted businesses. To a certain degree they have also provided improved housing to a portion of the former residents of *solares*. However, findings suggest that not all Cubans profit equally from the restoration of the historic district, especially among its residents. We can trace the changes introduced in Old Havana through an examination of the stringent urban regulations that regulate development. Notably, urban regulations make it difficult for low-income residents to build or conduct home repairs that fit their needs and wherewithal. As a result, the redevelopment of Old Havana has produced both winners and losers. During interviews with them, many low-income residents expressed fears about their futures in a fully restored Old Havana; many articulated worry over the possibility they would be displaced.

However, not all change introduced in Cuba after the collapse of the Soviet Union follows the top-down pattern anchoring the restoration of Old Havana. In the early 1990s, during a moment economic crisis, Cuba introduced the Community Architect Program, an organization seeking to provide residents with the tools necessary to build, repair and expand their homes. The main thrust behind the Community Architect Program was to take a novel approach to architectural design in which residents are empowered to make their own decisions and come up with designs tailored to their unique needs, possibilities and aspirations.

Change in Old Havana has been broadly resisted by its low-income residents. In particular, low-income residents continue making adaptations to their living environments without adhering

to by-laws or building codes. Those who have lost their homes due to structural collapse and lack of maintenance often squat in abandoned warehouses and workshops in Old Havana. During interviews, I visited several illegal units that were in the process of being slowly constructed and adapted to house a family. Cardboard and other non-permanent materials are often used to introduce divisions and alter the functionality of living spaces. These residents are resisting change imposed from above, occupying spaces for which authorities may have other plans in mind.

Another cross-cutting theme persisting throughout this dissertation is the topic of belonging, place attachment and meaning. Almost all of the interviewees commented that they experience a high degree of belonging to their neighborhood. While their dwellings may be poor in quality and cause a great deal of discomfort (e.g. people complained about water leaks, lack of privacy, substandard sanitation and noise), almost all mentioned that they would like to remain living in Old Havana. As one resident stated, despite the fact that her house is falling apart, "being sent to the countryside to live would be like being dead for me."

Data collected throughout this multidimensional study offers a theoretical mystery: why do people feel such strong attachment to a neighbourhood that otherwise offers such poor living conditions, especially in terms of housing? My study suggests that our habitats comprise far more than housing units made of brick and mortar. People in Old Havana are attached to their dwellings for two primary reasons. Firstly, due to the fact they have done whatever possible to improve their living environments; more meaning is attached to homes if their occupants physically build them. Secondly, residents of Old Havana have the opportunity to belong to a complex network of relations shared between neighbours. Many interviewees identified the social support provided by these networks of friendships and companionship as a source of their

residential satisfaction. Research across developing countries has found similar findings (Zhang and Lu, 2015; Li and Wu, 2013; Mohit and Nazyddah, 2011; Parkes et al, 2001).

Data revealed that in a limited number of occasions, these companionship networks allow for the development of mutual aid among residents struggling to renovate their living environments themselves. However, these relationships have not fully manifested themselves in a manner resembling a grassroots movements or organized front for social resistance. The rich social networks existing in Old Havana have not evolved into spheres of action that may challenge the authorities and their vision for the future of the neighborhood.

Ultimately, this dissertation explores the tense relationship between the formal and the informal, the top-down and the bottom-up and the strategies seeking to resolve these tensions by bringing together residents and authorities and encouraging residents to create their own designs while still conforming to urban regulations. It could be argued that both the top-down and the bottom-up are unavoidable dynamics in the development of the cities of the developing world. Oftentimes municipalities seeking to expand their economy endorse designs that are developed by experts, operating under the pretense of creating urban environments that will propel the city and its status in a globalizing world. Under these circumstances, cities in developing countries with limited budgets are forced to make strategic investments. These typically take the form of catalytic projects that are designed to attract further investments (Deng, Poon and Chan, 2016), often hiding or displacing the poor from areas designated for global consumption in the process (Huchzermeyer, 2011). Examples of these shifts include forced evacuations of the poor as cities prepare for a world-class event such as an Olympic Games, a World Cup or a Universal Exposition (Sotomayor, 2013).

Access to limited financial resources means that cities can only upgrade their urban environments at a gradual pace. In the meantime, people with a vested interest in their own progress are able to introduce a myriad of small-scale adaptations to their immediate environments. With time, places that once exhibited the worst environmental conditions have been transformed through the actions of their residents, creating interesting urban environments that provide an increased level of comfort. This is particularly true of cities of Latin America and the Mediterranean Basin. However, within the context of socialist Cuba after the fall of the Soviet Union, it would seem that only those with access to income in hard currency are able to successfully upgrade their living environment.

Implications for a Theory of Building Systems

Building upon the seminal works of Alexander, Neis and Moore (2012), Harvey (1989) and Fainstein (2001), this dissertation refines the concept of the building system. The building system as concept refers to the ways in which capital and politics interact in time and space to produce a built environment. Such interactions manifest physically in the form of buildings with distinctive physical attributes and thus are used, perceived and experienced in different ways by different dwellers of the urban world. The concept of the building systems bridges a macro level characterized by the political and economic strategies employed by the real estate business to develop buildings and a micro level characterized by the way in which ordinary people perceive these buildings. Furthermore, building systems encompass five fundamental elements that are organized and administered during the development of a building, a neighborhood or city. These elements are: design decisions, building technologies and materials, labor, financing (within a socialist system) and regulations.

Building systems equally comprise distinctive categories. By looking at the ways in which design decisions are made in conjunction with the type of technologies and materials employed in the development of a building, in addition to any of the other components of building systems, we can reveal the distinctive nature of different building systems. Furthermore, the concept of building systems allows us to understand the many ways in which the logic behind the construction of a skyscraper in Chicago or Singapore differs from the erection of a shack in an eastern district of Mexico City.

The concept of the building system also seeks to shed light onto changes having to do with urban projects and housing developments. In 1983, Castells wrote that social changes in the city were either the product of the work of grassroots movements or the action of the dominant classes (Castells, 1983). Several examples back up his proposition. Social movements across the developed and developing world have altered the city structure through protest and collective organization. Often, in the urban dimension, such movements are able to achieve better housing conditions and provision of urban services for vulnerable residents (Huchzemeyer, 2011). However, it is clear that grassroots movements are particular to space and time and their success depends on the balance of power between State and society.

Over the past decades, development banks, international NGOs and activists have advocated for increased participation on the part of community members in decision-making processes related to urban projects. While participation in urban projects occurs in different degrees, Arnstein (1969) and Choguill (1996) have advanced the seminal notion of the 'ladder of community participation'. The ladder allows us to classify projects according to the amount of power communities wield in decision-making settings. The suggested concept of building systems seeks to refine further what was proposed by Arnstein and Choguill, since development

projects are not unidimensionial. When evaluating the degree of community participation in urban projects we must look at the degree to which communities participate in the different dimensions that the building system comprises (i.e. design, financing, building technologies and material, urban regulations and labor).

By looking at the different elements that constitute a building system, we can identify two classic categories. These are the top-down and bottom-up approaches. At a conceptual level, these two building systems are believed to account for the dynamics of urban development in the cities of the developing world.

In his work, Castells outlines the struggle between classes by tracking expressions of resistance within the cultural and social dimensions of society. Arguably, such a struggle can be manifested in the ways in which material artifacts, including housing, are designed and produced. Dovey (2012) argues that the bottom-up process of building a house using non-permanent materials in the developing world is not only an expression of people's efforts to create a living environment for themselves, but is a strong statement of social disobedience and resistance.

The collapse of the Soviet Union and the subsequent loss of trade with Eastern Europe shifted the balance of power in Cuba. In the midst of a great depression, Cuba became fertile ground for development initiatives seeking to solve local problems as varied as domestic violence and waste collection. Out of these, the ad-hoc social movement that most captured my attention is the Community Architect Program, which was created in the early 1990s to aid citizens in redesigning their homes. In previous chapters I have discussed its methods and their effectiveness. When examined through the conceptual lens of the building system, the processes employed by the Community Architect Program reveal the emergence of an approach that

combines elements of the top-down and bottom-up. Indeed, this new approach is a hybrid building system.

The development of the built environment in Old Havana is regulated by stringent by-laws and building codes. Such urban regulations, at least in Old Havana, derive from a State-sponsored vision seeking to revitalize the historic district and convert it in a major hub for tourism. This vision primarily aims to provide the visiting middle and upper classes of the developed world with the experience of an 'authentic' Caribbean city. Bars, boutiques, hotels and restaurants are all designed to suit the taste and expectations of foreign visitors, conforming to world-class standards. In this context, community architects and the hybrid approach they employ can only do so much to help low-income families design homes that fit their needs, desires and possibilities. The positive benefits brought about by the work of community architect seems to be limited to those better-off residents interested in expanding their homes and adding rooms for rent to their dwellings as a source of revenue. However, the Community Architect Program has shown to be more successful in other municipalities across Cuba. Testimonies from officers and scholars working in locations outside of Havana suggest that in places where urban regulations are more relaxed community architects are better able to help low-income households build homes. In Old Havana, the changes introduced by through methods of participatory design must occupy a political middle ground. Community architects are required to navigate a series of urban regulations favoring the vision of the dominant classes, all while maintaining an open dialogue with their clients, many of which are low-income households.

Further Questions

The Community Architect Program was the product of specific historical circumstances. Its fate changed alongside balances of power structuring the island and beyond. Within the theory of

building systems, it is possible to conceptualize how these shifts in power are linked to the production of the built urban environment. To further understand the construction of a theory of building systems in Cuba, research into the following questions would be useful: How does the Community Architect Program perform in other municipalities of Cuba? How do more relaxed or more stringent urban regulations impact the success of the hybrid building system? How do participatory approaches to building design perform in those areas that are not a priority for the State and the private sector?

Summary

This dissertation offers a glimpse into a very particular environment. The research illustrates the way in which a new approach towards the development of the built environment appeared in Cuba by borrowing elements from both the top-down and the bottom-up systems. I have used the concept of hybridity to conceptualize how this third way of dealing with the development of the built environment evolved. The theory of hybridity offers us a framework to better understand the development of different approaches that seek to upgrade the built environment in developing countries. However, it is to be noted that urban development strategies in the cities of the developing world may take different forms. The way in which elements from systems A and B mixed in Old Havana to create the 'hybrid' system is certainly not the only way in which this mixing may occur. There are various ways in which hybrid building systems may arise. The power of the concept of hybridity lies in the fact that it allows for flexibility when analyzing the different ways in which building systems may be configured. This allows us to understand that new building systems develop in response to local political environments.

The dissertation also explores the way residents of Old Havana feel about their environment. The qualitative approach revealed two key findings. On the one hand, high degrees of residential satisfaction at the time of the research were explained by the rich and complex network of friendships that exist among neighbors in Old Havana. On the other hand, socio-demographic profiles seem to be the most powerful determinants of the way residents of Old Havana evaluate the changes occurring in the historic district. Here again, it is important to stress that research results cannot be generalized to other districts or to other cities. It is argued that there are no universal determinants of residential satisfaction.

Finally, the dissertation assesses the success of the Community Architect Program in Old Havana. The research found that community architects have mixed results when implementing their participatory approach in the historic district. Stringent urban regulations, which are characteristic of Old Havana, were identified as a factor explaining these mixed results. However, studies analyzing the performance of the Community Architect Program in other municipalities of Cuba may reach completely different findings.

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Appendix

Field research components were reviewed by the McGill University, Research Ethics Board, with approval given for the interview and field reconnaissance activities under REB approval certificate #480-0513, valid through August 2017. Samples of interview questions directed to different respondent groups are provided below.

A. Sample Interview Guide: Beneficiaries of the Community Architect Programme (in Spanish)

Guía de Entrevistas Semidirigidas

(Residentes beneficiarios del Programa Arquitecto de la Comunidad)

¿Puede decirnos un poco sobre usted? ¿Cuántos años tiene? ¿Cuáles han sido sus profesiones? ¿Cuál es su ingreso mensual? ¿Quién más vive aquí?

¿Cuánto tiempo tiene viviendo aquí? ¿Cómo obtuvo su casa? ¿La heredó? ¿El gobierno la ubicó aquí?

¿Puede describir su experiencia viviendo aquí en esta casa y en La Habana Vieja? ¿Preferiría usted vivir en otro lado? ¿Por qué? ¿Podría decirnos cómo ha cambiado este lugar desde que usted vive aquí? Háblenos un poco de cómo han cambiado las cosa en esta calle. ¿Recuerda negocios que hayan ido y venido? ¿Recuerda vecinos que hayan llegado y cómo obtuvieron sus casas? ¿Ha habido construcciones nuevas?

¿Ha solicitado algún servicio de la oficina de arquitectos de la comunidad de La Habana Vieja? ¿Qué servicio solicitó?

¿Los arquitectos de la comunidad le solicitaron algún documento? ¿Qué documentos? ¿Puede decirnos un poco sobre el proceso seguido durante el servicio? ¿Tuvo usted que pagar por anticipado? ¿Se le asignó un arquitecto? ¿Hubo una pequeña entrevista?

¿Algún arquitecto de la comunidad ha visitado su casa?¿Cuál fue el motivo de la visita?¿Puede decirnos qué pasó durante la visita?¿Qué tan larga fue?¿Le hicieron preguntas?¿Dibujaron algo?

¿Le ayudó el arquitecto de la comunidad a hacer un plano para su casa?¿Mientras hacía el plano, sintió usted que el arquitecto de la comunidad estaba preocupado por documentar sus

necesidades? ¿Siente usted qué sabía cuáles eran sus necesidades antes de la visita del arquitecto o siente que el arquitecto le ayudó a darse cuenta de sus necesidades?¿El arquitecto le dijo qué era lo que usted necesitaba?¿El arquitecto le preguntó qué era lo que usted quería?

¿Qué pasó después de la visita?

¿Hubo un segundo encuentro con el arquitecto de la comunidad?¿Dónde fue este encuentro?¿Le mostró el arquitecto de la comunidad distintos planos de su casa?¿Le explicó las distintas opciones?¿Cómo fue la presentación de estas opciones?¿Hubo ayudas visuales?¿Qué hizo el arquitecto para facilitarle a usted la comprensión del proyecto?¿Sintió usted que la presentación del arquitecto le ayudó a usted a comprender mejor cada propuesta, cómo eran diferentes, y cómo cada una lo afectaría a usted?¿Siente usted que el arquitecto de la comunidad le ayudó a hacer una decisión mejor informada para el futuro de su casa?¿El arquitecto de la comunidad le dio algún plano?¿Lo podemos ver?¿El arquitecto de la comunidad le dio algo más, una lista de materiales requeridos, una estimación de los costos de construcción?

Además del servicio provisto por los arquitectos de la comunidad ¿Hay alguna otra ayuda o servicio para que usted mejore su vivienda?

¿Puede platicarnos de los cambios que le ha hecho o que planea hacerle a su casa?¿Siente usted que los arquitectos de la comunidad están ayudando a que gente como usted tenga una mejor casa?

B. Sample Interview Guide: Residents of the Solares of Old Havana (in Spanish)

Guía de Entrevistas Semidirigidas (Residentes de los Solares de La Habana Vieja)

¿Puede decirnos un poco sobre usted? ¿Cuántos años tiene? ¿Cuáles han sido sus ocupaciones? ¿Cuál es su ingreso mensual? ¿Quién más vive aquí?

¿Cuánto tiempo tiene viviendo aquí? ¿Cómo obtuvo su casa? ¿La heredó? ¿El gobierno lo ubicó aquí? ¿Es propietario o renta su casa? ¿Le gusta vivir en esta casa? ¿Cuáles son los problemas principales de su casa? ¿Hay cosas que le gustaría reparar? ¿Cuáles son los obstáculos que le impiden renovar su casa? ¿Qué tan satisfecho se siente viviendo aquí? ¿Por qué?

¿Puede describir su experiencia viviendo en esta casa y en La Habana Vieja? ¿Preferiría usted vivir en otro lado? ¿Por qué? ¿Podría decirnos cómo ha cambiado este lugar desde que usted vive aquí o recuerde? Háblenos un poco de cómo han cambiado las cosas en esta calle. ¿Recuerda negocios que hayan ido y venido? ¿Recuerda vecinos que hayan llegado y cómo obtuvieron sus casas? ¿Ha habido construcciones nuevas?

¿Ha solicitado algún servicio de la oficina de arquitectos de la comunidad de La Habana Vieja? ¿Qué servicio solicitó? ¿Cuál es su opinion de los arquitectos de la comunidad?

¿Qué piensa de los cambios en la Habana Vieja? ¿Piensa que la renovación de la Habana Vieja le reporta algún beneficio? ¿Por qué? ¿Piensa que el proyecto de renovación le va afectar de alguna manera? ¿Por qué? ¿Siente que tiene la posibilidad de participar en las decisiones que toma la Oficina del Historiador? ¿Por qué?

¿Hay algo más que quisiera decir?

C. Sample Interview Guide: Community Architects and Government Officials (in Spanish)

Guía de Entrevistas Semidirigidas (Arquitectos de la Comunidad y Oficiales de la Vivienda)

¿Puede platicarnos un poco sobre usted?¿Cuánto tiempo tiene trabajando aquí?¿Cuál es su posición oficial?¿Cuál es la misión de un arquitecto de la comunidad?

¿Podría hablar brevemente de La Habana Vieja?¿Cuantas personas viven aquí?¿Cómo son las condiciones de vivienda comparadas con otras partes de La Habana?¿Cuáles son los principales retos de la vivienda en La Habana Vieja? Además de los arquitectos de la comunidad ¿Qué otros recursos están presentes para la renovación de viviendas en La Habana Vieja?

¿Puede platicarnos un poco sobre esta oficina ¿Cuánto tiempo tiene que existe?¿Cuantas personas trabajan aquí?¿Cómo se financia la oficina?¿Puede describir la relación entre la Oficina de Arquitectos de la Comunidad de la Habana Vieja y el Instituto de Planificación Física, la Dirección Municipal de la Vivienda y la Oficina del Historiador de la Habana Vieja?¿Cuántos servicios ofrecen al año?¿Cuáles son los distinto servicios?¿Cuántas personas se acercan a ustedes por año para realizar renovaciones de sus viviendas?

Sabemos que los arquitectos de la comunidad de Cuba han desarrollado un método de diseño comúnmente conocido como el Método de Livingston ¿Puede describir este método?¿Cree usted que este método es apropiado para las condiciones de La Habana Vieja?¿Es este el método que utilizan aquí o utilizan un método distinto?¿Siente usted que el método de diseño que utilizan tiene como uno de sus objetivos facilitar que la gente participe en el diseño de su casa?¿Podría darnos un ejemplo de algo que hace un arquitecto para asegurarse que la gente participe en el diseño de su casa?¿Cómo se evalúan las necesidades de la gente? En su opinión ¿Las mujeres y los hombres participan por igual en el proceso de diseño?¿Podría darnos un ejemplo de algo que usted haría para asegurarse de que todos los miembros del hogar participen en el proceso de diseño?¿El método de diseño que usted utiliza le ofrece al cliente diferentes alternativas en alguna o en varias etapas del proceso?¿Puede darnos un ejemplo?¿Siente que su trabajo como arquitecto de la comunidad le ayuda a las personas a tomar decisiones mejor informadas?¿Por qué?

¿Puede mostrarnos algunos ejemplos de planos que haya preparado en el pasado? Refiriéndose a cada uno de estos ejemplos ¿Puede explicarnos cuáles eran los principales problemas de diseño y como fueron resueltos?

¿Cuáles son los principales retos que los arquitectos enfrentan mientras producen diseños con la participación de los residentes?

¿Hay algo más que quisiera decir?