HOUSING REHAB FOR CONSOLIDATED INFORMAL SETTLEMENTS: A NEW POLICY AGENDA FOR 2016 UN-HABITAT III

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INTRODUCTION AND OVERVIEW

Since the first UN-Habitat Conference in 1976 the primary focus of housing policy for informal settlements have been upgrading and regularization (infrastructure and property titles). From the 1980s onwards these policies largely became conventional wisdom, and were widely applied in developing countries. However, informal self-built settlements that formed thirty or more years ago, many of which were the early targets for upgrading programs and government intervention, are today located in the intermediate ring or sector of cities (i.e. what was once old periphery). Now fully serviced and integrated into the urban fabric, these neighborhoods are rarely a policy priority, yet they, too, are in urgent need of improvement and need to be brought back into the policy focus for Habitat III in 2016. Self-built, intensively used, high density, multi- and mixed-tenure and now contain second and third generations of residents many of whom were raised in these settlements, there is an urgent need for creative policies targeting these first and second-generation households, of whom many of the latter will inherit the homes from their parents (Ward et al 2011). However, not until very recently has research systematically begun to focus upon these “first suburbs” or “innerburbs” (Ward, Jiménez and Di Virgilio, 2015).

Moreover, the past decade has seen a quickening of interest about housing sustainability within of both new house construction as well as retrofitting the existing housing stock -- within the broader agenda of sustainable development and climate change. Thus far, however, the focus of sustainable housing applications has largely targeted middle- and upper-income residential neighborhoods in urban areas, but in both the United States and in middle-income developing countries such as Mexico and Brazil, there is growing recognition that urban sustainability will only gain traction if widespread applications are also incorporated into self-help and do-it-yourself housing construction and home improvements, especially within lower-income housing markets. The paper reports on path-breaking comparative research in nine Latin American countries (eleven cities) undertaken by a network of scholars who adopted a common methodology to gather household, settlement, and municipal data about consolidated self-built settlements of the 1970s and 1980s (www.lahn.utexas.org). The goal was to develop a new generation of housing policies and approaches that would focus more on in-situ housing rehabilitation (rehab) needs and policy options designed to attend to the needs of these now often dilapidated consolidated dwellings, as well as for renewal of the often (now) heavily deteriorated infrastructure of these neighborhoods (Ward, Jiménez and Di Virgilio 2015; see also Figure 7 below).

Specifically, this paper explores some of the ways in which sustainable housing applications may be extended to lower-income segments of the housing market in both developed and developing countries, and proposes ways in which policy makers, NGOs and low-income owner households themselves can participate in sustainable home building. Reporting primarily upon housing rehab experiences and policy needs in Latin America, these findings and policy lines are offered for consideration within a larger context of African, Middle Eastern and Asian cities where similar processes of human settlement have been entrained since the 1970s. The policy proposals are situated within the relatively recent (post-1990s) era of more democratic and participatory urban governance, one that is increasingly decentralized, and in which local (municipal/city) sustainability is a key policy imperative within the broader context of central and

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2 Although substantially different in nature, the first suburbs in the USA created between 1950 and 1980 are also the focus of emerging research and policy-making (Katz et al 2006), including a recently observed trends towards a suburbanization of poverty out of the inner city and towards the first ring of city (Kneebone and Berube 2014).
regional government oversight and fiscal support. These policy approaches found especial traction after UN-Habitat II Congress held in Istanbul in 1996, amid a quickening of calls for greater public engagement and claims embodied within a “Rights to the City” framework and Charter (Marcus 2009; Fernandes 2007; Friendly 2013).

TOWARDS A BETTER UNDERSTANDING OF CONSOLIDATED SELF-BUILT (IRREGULAR) SETTLEMENTS IN THE “FIRST SUBURBS”

Widely known and recognized from the 1960s onwards, Latin America and other developing regions of the world experienced rapid urbanization often associated with the growth of low-income irregular settlements, be they squatter invasions or illegally developed subdivisions (UN-Habitat 2003, 2006). As the phenomenon of informal settlement became widespread, often outpacing the rate of formal urbanization, so by the 1980s self-build settlements comprised between 10-60 percent of the built-up area of many cities (Gilbert, 1996: 74). In the early years of this informal settlement expansion government policy had often largely ignored such housing production, but as research came on line about the potential for upgrading of self-built settlements, and the social capital embedded in these communities became apparent, so policy interventions sought to intervene in order to “regularize” and upgrade the physical status of these illegal settlements (Gilbert and Ward 1985). This involved two principal arenas of intervention: First, to gradually provide essential infrastructure (water, electricity, drainage, street paving, schools, etc.) in an attempt to ensure that they were more fully integrated into the city as working-class neighborhoods. Second, although not in all cities, the illegal nature of initial land capture was addressed by transferring full title to residents who were, in effect, the de facto owners who had either squatted upon un-serviced land, or had purchased the same at low cost.

Since the UN-Habitat meeting in Vancouver in 1976, regularization policies became widely accepted and were actively promoted by multi-lateral agencies and governments alike (Gilbert and Ward, 1985). From the late 1990s the United Nations Development Program (UNDP), supported by the World Bank, actively promoted the principles and agenda for more sustainable urban management at the national and sub-national levels (Jones and Ward 1994). Moreover, the quickening of government decentralization in many countries of Latin America since the early 1990s (Campbell 2003), together with efforts to improve administrative modernization and improved local governance, has often brought low-income communities into the formal planning process and taxation structure of cities, as public officials seek to reduce housing and public utility subsidies to the poor, and to create a more sustainable basis for city development (Ward 2005).

Today these older (now) regularized settlements invariably form part of the intermediate ring of the metropolitan built-up areas and are spatially more or less equivalent to the “first suburbs” in the USA (Katz et al 2006; Puentes and Warren 2006). In Latin American metropolitan areas, and in other large cities these are what the LAHN research teams refer to as the “innerburbs”, namely the first ring of suburban development most of which began a decade or more later US suburban expansion described by Katz and his colleagues at the Bookings Institution – i.e. from the 1960s onwards (Ward 2012b; Ward, Jiménez and Di Virgilio 2015). In our comparative research in Latin America (www.lahn.utexas.org) we differentiate between the pre 1960s historic core and “Inner Urban Areas” (CORE and INURBAS) and the INNERBURBS which developed between 1961-1980, (see Figure 1). Beyond are the contemporary SUBURBS (post 1980 contiguous development) and “EXURBIA” (i.e. the “peri-urban” settlement in the rural hinterland). ³ Where appropriate (in Mexico for example), LAHN researchers sometimes differentiated between the first and second “waves” of former suburban development and which today

³ It is the peri-urban land tracts that are invariably the location of the mass social interest housing estates spawned by public and private sectors in Mexico, Brazil, Chile and elsewhere since 2000.
constitute the innerburbs that formed in the 1960s and those that formed in the 1970s (see Figure 1 for example – light and dark green shading).

![Map of Monterrey showing growth of innerburbs](image)

**Figure 1. The Location of the “First Suburbs” or “Innerburbs”, Monterrey, Mexico**

Of course, these innerburbs are not exclusively informal settlements, but they also include middle-income residential areas. However, from the 1960s and 1970s onwards informal settlements became the principal means of affordable housing production for poor and very poor households in Latin America (Gilbert and Ward 1985), and are also a common feature of urbanization in many other developing country regions as the many contributions to *Habitat International* over the years amply attests. Self-built housing expansion over decades has meant that these settlements today house large numbers – as many as 15-30 percent of the total city population – living as they often do, in high-density owner-occupancy dwellings, and in rental accommodations and tenements (Gilbert 1993; Blanco et al, IDB 2015).

Two broad sub-markets may be identified for these self-build settlements: 1) those that are (usually) more peripheral, recently formed, and are in the early stages of house construction (“incipient” or “consolidating”) with minimal or limited infrastructure (Ward 1982; Abramo 2003); and 2) those that are older, more or less fully serviced, in which dwellings are substantially “consolidated” often with 2-3 floors (stories). Within these latter consolidated settlements there are also important differences between subtypes: those with an irregular street layout, often more close to the city center, occupying very small lots of 50-70m² (e.g. the classic *favelas* in Brazil, and the *villas* in Argentina); and which contrast sharply with the much larger universe of irregular settlements (*loteamientos, loteos populares*) in those same countries and elsewhere, which are more regular in street layout and design (usually quadricular), with considerably larger
lots (120-200m²). The physical and spatial characteristics of these subtypes are substantially different, therefore, and present different challenges for housing policy rehab and neighborhood regeneration (see below). Much of low-income rental housing development of the past two decades is found in both these consolidated settlements (Gilbert 1993; Blanco et al. 2014; Camargo and Jiménez 2015).

These consolidated irregular settlements are the focus of this paper, and while they were illegal at the outset most have been “regularized” by programs to provide property titles to the occupiers. Figure 2 shows how lot occupancy and home expansion occurs over 15-25 years, as new rooms are constructed and extended across the lot over time through self-building (see also diagrams in Ward et al. 2011: 469). Informal incremental growth of this nature is typical in many countries and is the principal means of land and housing acquisition for low-income ownership outside of the formal market in Latin America and elsewhere (Payne 2013). As settlements become integrated into the city fabric they also provide myriad accommodation opportunities for other low-income populations through renting or sharing. In some cities, such as Bogotá Colombia, petty land-lord tenant renting arrangements are quite common (Gilbert 1993; Gilbert 2012; Ward 2012a), or, as in Chile, migrants from the same town or extended family live allegados with earlier first-generation arrivals (Gilbert 1993). In Mexico owner households are less likely to share their lot or dwelling with renters in petty-landlord arrangements, and instead create off site rental tenements letting out single rooms to renters (Ward 2012a). Much more common in Mexico is the sharing the lot or dwelling space with close kin and, as observed below, there are a number of ways in which additional family members, parents, in-laws, and children can be accommodated.⁴

![Proceso constructivo](image)

**Figure 2.** Gradual 25 year build out across the lot from single shack to consolidated multi-room dwelling with separate sections for 2-3 households (parents and son; future apartment for parents; daughter and family, etc.) Note the dilapidation associated with intensive use. (Courtesy of Susanna Rojas Williams.)

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⁴ One household in Guadalajara documented by Jiménez (2015), no less than 50 first, second and third generation household members of Doña Perfècta (and her late husband) had lived in the dwelling and lot at some time in their lives.
As well as having a place in which to live and raise one’s family, an important reason that self-helpers give for engaging in informal settlement is that of building an asset that their children may inherit (Moser 2009; Ward 2012a). Many of the original pioneer self-builders in consolidated settlements were young adults when they first occupied their lots 30-50 years ago, and today many of these homes are beginning to be passed on to second and third generations as the elderly parents pass away. The issue of property succession and inheritance is rarely considered within housing policy analysis, but in the next decade it is certain to become an important policy element both for housing acquisition and for the maintenance of clean property tiles for those second-generation inheritors as a baseline for proving ownership, and a pre-requisite for housing investment and rehab (Ward et al 2011; Ward, Jiménez and Di Virgilio, 2015).

Many adult children raised in these now consolidated settlements continue to share with parents and siblings, and for them, sharing, and the expectation of inheriting a part of the family home, is an important (and sometimes the only) route to their becoming home owners in the future (Ward 2012a). Unlike their parents who were often first generation migrants to the city, these second and third generations were raised in the barrio (neighborhood) and are rarely interested in following their parents’ example by moving to the city periphery as self-builders in newly formed irregular and poorly serviced settlements. Instead, their options are to move out and rent locally, or to remain sharing with their parents or setting up as an independent household unit on another floor or in another part of the lot (see Figure 3). Rather than building de novo, the housing aspirations and engagement in self-building for these adult second-generation households is more likely to involve reorganization and rehabilitation of the family home, itself now often heavily deteriorated after many years of wear and tear.

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5 Although Jiménez and Cruz Solís (2015: 48) present focus group data from young adults who expressed a range of preferences that did include positive interest for ownership in mass social interest housing estates at the far periphery, as well as preferences for renting locally, rather than remain living on site with their parents, once they married. They also note interesting gender differences in such preferences.
Dwelling and lot sharing patterns can take many forms: households may set themselves apart in another section of the lot, or they may live out of a single room or part of the house that was originally their bedroom, now with a small stove in the corner, a TV, and a fridge, often sharing the bathroom facilities with everyone else. Sometimes -- in Lima for example -- a common strategy is to build upwards (into "los aires") with the aim of providing a separate floor for one or more adult children and their families (Peek 2014; Rojas and Ward 2015). If properly planned in advance it may be more feasible that such extensions and sub-division will lead to a clear-cut division of space with separate access from the stairwell or from outside (Figures 3 and 4), but more usually the process is improvised and largely ad hoc, in which families live out of a single room and share facilities. Household members have limited privacy, and rarely enjoy exclusive access to their own part of the dwelling. Moreover, the dwelling unit and lot organization is rarely adequate or appropriate for the newly emerging household arrangements, nor do they anticipate the ownership aspirations of the (now) adult children and their families.

The following section of the paper provides a brief overview of some of data findings that emerged from the major eleven-city study in Latin America (Ward, Jiménez and Di Virgilio 2015), and which merit careful examination as a prelude to a discussion of principal policy directions as we move towards the UN-Habitat meeting in Quito in October 2016.
In this paper I will draw primarily upon findings from two sets of surveys: first a “snapshot” study of two cities (Bogotá Colombia, and Mexico City, Mexico) in which household data were first collected in the late 1970s and which later formed the baseline sample for my return visits to those lots in 2007, thereby creating a cross-sectional “snapshot” of dwelling and household organization across a thirty year period (Ward 2012a). The second dataset comprise comparative data drawn from several other Latin American cities that were surveyed in 2009-11 as part of the Latin American Housing Network (LAHN) comparative study (www.lahn.utexas.org), and which provide comparative insights into the nature of residential and household organization of these low-income consolidated innerburb neighborhoods.

Table 1. Household & Lot Data for Consolidated Settlements in Various Mexican and Latin American Cities

<table>
<thead>
<tr>
<th>Item</th>
<th>Mexico City</th>
<th>Bogotá</th>
<th>Guadalajara</th>
<th>Lima</th>
<th>Monterrey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of settlements in the survey</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Original family still living on lot after &gt;30 yrs.</td>
<td>82%*</td>
<td>81%*</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Average # persons on lot</td>
<td>9.16*</td>
<td>9.7*</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Weighted average # homes per lot 2007 (parenthesis = 1979)</td>
<td>2.55 (1.58)*</td>
<td>2.7 (1.6)*</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Average # yrs. living in the n’hood</td>
<td>35.2</td>
<td>20</td>
<td>24.3</td>
<td>42</td>
<td>28.4</td>
</tr>
<tr>
<td>% of lots with 2 or more families</td>
<td>65%</td>
<td>40%</td>
<td>21.4%</td>
<td>43%</td>
<td>21.4%</td>
</tr>
<tr>
<td>% extended families (structure)</td>
<td>35%</td>
<td>19.4%</td>
<td>38%</td>
<td>32%</td>
<td>33%</td>
</tr>
<tr>
<td>Average age of owner</td>
<td>67.7</td>
<td>53</td>
<td>58.3</td>
<td>69</td>
<td>59.7</td>
</tr>
<tr>
<td>Trimmed average of dwelling value $US (self-estimates)</td>
<td>$101,800*</td>
<td>$29,370*</td>
<td>$36,360</td>
<td>$62,566</td>
<td>$24,070</td>
</tr>
<tr>
<td>Trimmed average of dwelling value $US (cadaster values)</td>
<td>$66,670*</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

• Source: Latin America Housing Network (www.lahn.utexas.org) General Matrix.
• *= 2007 longitudinal survey data

Research Finding #1: Once Established, There is Minimal Residential Mobility Among Home Owners

A principal finding from the 2007 return survey study highlights the very high affinity and use-value that low-income owners ascribe to their homes in self-built consolidated settlements. In both Bogotá and Mexico City after a period of more than 30 years, over 80 percent of all cases interviewed were found to be the same (original) family still in residence on the lot, and often included one or other of the parents, if not both. Similarly, almost all lots remained in residential land-use, usually for ownership, although in Bogotá a significant number of lots and dwellings had been subsequently been turned over to renting, either as rooms or small apartments shared with the owner, or to renters where the owner lived off site but collected rents (see also Jiménez and Camargo, 2015). The LAHN surveys in 2009-10 in all of the other cities further corroborate the generalized high levels of immobility among owners of the earlier self-build settlements.
(except for where program evictions had forced them to exit such is some of the villas of Buenos Aires, [Di Virgilio, Arqueros, and Guevara 2015]). Depending upon the city in question and the relative age of the particular settlement selected, the average period of residence in the current lot for owner households was marginally under twenty-four years; with almost half (49 percent) of owners in residence for more than twenty-five years, and almost 70 percent for twenty years or more.\(^6\)

Taken overall, population turnover among owners appears to have been modest at best. Even those owners who had bought-out an original pioneer family had often lived in the settlement for many years, and many considered themselves to be one of the original settlers. However, this does not mean that there is little or no population mobility and “churn” in these older suburbs: quite the contrary. Renters form a large minority of households in innerburb settlements, and one observes high levels of turnover and low number of years residence in the same dwelling (Gilbert 1999; 2010; Abramo 2003; Jiménez and Camargo 2015). Moreover, while owners show great longevity in their original home, other household members come and go: sons and daughters marry and move into renting accommodation, or move elsewhere into home ownership if they can afford to do so; others leave to share with in-laws or relations; while others move elsewhere for work, etc. Nor is it unusual for those same household members to return at a later date, either permanently or temporarily. In short, one observes a dynamic and often cyclical pattern of turnover and residence though the parental home often associated with the life course (Ward, Jiménez and Di Virgilio, 2014, Fig. 4, p. 96). In short, against a backdrop of parental immobility, the data also suggest significant turnover and movement within households and dwellings in these consolidated low-income settlements, albeit with some settlements reporting higher rates of turnover than others.

**Research Finding # 2: There are Important Ongoing “Use” Value of the Home that Support Different Household Structures and Organization, and Shape Future Inheritance Expectations**

As discussed earlier, self-building provides an informal route to home ownership with considerable flexibility for family and household expansion. It is also an asset that provides economic security (Moser 2009), and ultimately can be passed to one’s children through inheritance (Grajeda and Ward 2012). Table 1 shows some before-and-after comparisons of demographic and household organization characteristics. As expected the average household size has declined since the late 1970s when urban and national fertility rates were much higher, and as the original has family “downsized” as children move out. Indeed, comparing the household size data from earlier surveys for the late 1970s (Gilbert and Ward 1985) we see that average household size for owner households today has almost halved in Bogotá (down from 6.4 to 4.27); and by almost two persons on average in Mexico (5.5 to 3.66 – Table 1). However, in the opposite direction, we observe an increase in the average number of separate households living in the dwelling or on the lot, situations in which adult children now share the lot with their parent(s) but live apart as a separate nuclear family unit. This internal lot division among adult sons and daughters is evident in Table 1, which shows the sharp increase in the number of separate households who were found to be sharing a lot (up from 1.63 to 2.55 and 1.65 to 2.24 in Mexico City and Bogotá respectively).\(^7\) Those children who do exit during

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\(^6\) 2009 surveys across fifteen settlements (almost 1,200 cases) in Santiago Chile, Buenos Aires Argentina, Montevideo Uruguay, and Guadalajara and Monterrey in Mexico (www.lahn.utexas.org). The higher-end averages were common in Chile and in Mexico; whereas in Argentina and Uruguay where settlements were formed more recently, and/or evictions were more commonplace, the average number of years residence on the lot was found to be somewhat less (18 and 20 years respectively).

\(^7\) It should be noted that the same degree of lot sharing among independent households is not as high in other cities in which we gathered data in 2009 where the average is commonly around 1.4 families per lot (Latin American Housing Network data). Similarly, the average total number of residents living on these lots is considerably less: an average of five persons in the four cities discussed here (Santiago, Montevideo, Guadalajara and Monterrey). This suggests that the propensity to share dwellings or lots relates primarily to the operations of the land market and to the low cost housing opportunities that exist nearby -- either for ownership or for rental. Land markets in both Bogotá and Mexico City are highly competitive and there is a scarcity of low cost at affordable prices for new would-be self-
the life course rarely go far: most remain in the same neighborhood, or in an adjoining one, or within the same broad sector of the city.

Household arrangements in which one or more close kin-related households share a lot with their parents is especially common in Mexico City. Among those sharing a lot, some 61 percent of cases comprised a mix of parents/in-laws and adult children; while a further 15 percent were adult siblings (or in-laws) who share, and another 15 percent were the original parents sharing with other kin. As mentioned above, renter households living on the same lot in a petty-landlord tenant relationship with the owner is relatively rare in Mexico City, but form an important component of lot and dwelling sharing in Bogotá, where over one-half of the lots included renter households albeit usually in some combination with the owner (parents and/or their adult children, see Table 1; see also Gilbert 1999: 1084). In Mexico City, where renting is especially significant in the older suburbs of former self-help settlements, dwelling structures are mostly purpose-built and exclusively rental tenements in which the owner landlord lives off site, although there is also modest evidence for some on lot petty-landlord tenant renting (Gilbert and Varley 1991).

The rising density of separate households sharing a lot also leads to an increase in lot population densities. In both Mexico and Bogotá the (settlement-weighted) average number of persons living on a lot is around nine. Some settlements show exceptionally high average of numbers on each lot, and this usually reflects the age (older means more internal subdivision), and the modal size of lot in the settlement/city (smaller lots have greater restrictions in their potential for subdivision, although this relationship is non-linear, since on smaller lots families tend to build additional second or third stories earlier in the phases of dwelling expansion). Also it must be remembered that these data do not include specific lots dedicated exclusively to rental accommodation and tenements where average numbers of persons per lot would be even higher, since five or six families living on a lot each with two–four members each is commonplace. The LAHN surveys also revealed higher levels of overcrowding in the second and third dwelling units on a lot (where these existed), relative to the primary owner’s dwelling unit. Often downsizing of the primary family unit leaves the elderly owner with several rooms and ample space while the adult children households and their young families live in a dwelling unit comprising only one or two rooms. The principal take home point here is that of increasing densities and intensity of usage of the dwelling fabric over a protracted period of time, without physical redesign or rehab of the existing spaces in order to meet the changing household structure and needs.

In Bogotá and Mexico City, as well elsewhere in the Latin American Housing Network study, the wish to leave one’s home to the children is an important long term wish of many pioneer settlers, although as noted above it is not unusual for such living arrangements to have been fast-forwarded pre-mortem, as adult children remain living on the lot (as prospective future owners) with one or more of their still extant parents. Indeed, living with one’s immediate kin is often preferable to living with strangers given the considerable social capital embedded within such shared lot and extended household arrangements (e.g. mutual child minding, shared food costs and housing expenses, reciprocity, and close social interaction between family members, etc.).

However, in those countries that provide the opportunity of making a will less than twelve percent of irregular settlement owners surveyed had actually made one, which means that upon their demise property inheritance and succession are determined by the Civil Code, which in most countries usually apportions equal shares to all children. The law notwithstanding, survey data in Mexico suggest that while very few low income home owners make a will, just under one-half have made some sort of “informal helpers (Gilbert and Ward, 1985). In Monterrey, Mexico, for example, the state sponsored FOMERREY low cost land subdivisions generated a significant supply of new low-cost lots that provided a nearby alternative to that of remaining with their parents (Ward, 2015).
arrangement” about how they expect their property to be disbursed among the children (Grajeda and Ward 2012; Ward et al 2011). Of course it remains unclear how fare such informal arrangements will ultimately be respected. Given the findings that adult children often already live on the lot and expect to remain there, there is likely to be a need for mediation that will facilitate inheritance agreement between siblings, and thereby ensure the transfer of titles to the inheritor owners. Failing that, property sales and home investment to achieve rehab is likely to be stymied (Ward et al 2011).

**Research Finding # 3. The Home as an Important Asset -- “Exchange” Values and Immobility**

Thus far this paper has focused upon the use-value of low-income property ownership, and the fact that such use-value is now being exercised trans-generationally. However, a largely unanticipated consequence of low-income neighborhood consolidation in the innerburbs is that these dwellings accumulate substantial exchange value as a result of general neighborhood upgrading, self-build and “sweat equity” initiatives and investments by the families themselves, and through the general valorization of property values locally. The data contained in Table 1 will come as a considerable surprise to many readers, even to those researchers who are familiar with low-income housing and poverty in Latin American cities. The last row in Table 1 provides the bottom line showing, as it does, the self-estimated property values among some of those owners interviewed, and/or the rumored sale prices of recently sold properties in the same street. The median value from the 2007 surveys revealed estimates of around US$91,000 in the survey settlements in Mexico City, with a much lower median value of US$23,000 in Bogotá. More recently acquired data (2009) for a number of cities in the Latin American Housing Network study extended the dataset on housing values and show that, while not as high as for Mexico City, property values can be quite substantial for consolidated self-help settlements across the region, although it is important to note that they vary considerably according to the local market.8

Surprising though these data may appear at first sight to many readers, they are central to the explanation of immobility noted earlier, since unless there is an active market for the purchase of these consolidated homes in working class settlements then few people can actually exercise the choice to sell up and move out. However, these property values are unaffordable to most would-be low-income home owners, unless they have access to formal financing. Thus few will be able to buy out an existing home owner unless they have a stable better-paid job, some savings or a cash windfall, or can engage informally with kin in order to parse together sufficient resources. If the market is to function adequately, sensitive policy making is required to make financing available in order to facilitate low-income households to buy and sell properties (Ward et al. 2011). Moreover, the fact of shared inheritance noted above increases the likelihood that beneficiaries will need to be bought-out by those siblings and relatives who wish to remain living on the lot of their late parents. Ongoing uncertainty about future use or exchange values is important since it will almost certainly depress prices below their market value, reduce residential mobility and market performance, and inhibit the incentives among stakeholders to make dwelling improvements.

**Research Finding # 4. There is an Urgent Need for Housing and Lot Rehabilitation**

Not surprisingly given their age, self-built origins and intensive use over more than a quarter century, our surveys reveal that a large proportion of dwellings and lots have come to experience major construction and physical rehabilitation needs. Home owners prioritize problems relating to construction issues: cracks,

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8 In 2009 the following (trimmed) average values were recorded (from much larger samples): Guadalajara ($47,100) and Monterrey ($25,000), Mexico; Guatemala City ($39,936); Montevideo ($12,500), Uruguay; and Santiago ($27,100), Chile. In all cases the formal property (cadaster) values, while somewhat lower, confirm that these property values are realistic against the self-assessed values reported to us during surveys (Latin American Housing Network data, www.lahn.utexas.org).
flooding, leaking roofs – which are palpable -- more than they emphasize less visible dimensions of the home such as poor dwelling design, or the need to replace or retrofitting wiring and water pipes, toilet facilities, etc. Staircases and access to upper floors pose particular problems, both in self-built design and construction (leading to “dead” or unusable spaces), or in retrofitting a staircase where it may require breaking through an existing concrete ceiling (Figure 5), or encroach upon public (sidewalk) space as in many of the exterior spiral or other staircases found across many cities. Gradual self-building and room add-ons often make for inadequate ventilation and an absence of natural lighting, both of which can only be improved through remodeling (Figure 6).

![Figure 5. Interior staircase to third floor which required forcing a new opening in the concrete ceiling of the second floor. Isidro Fabela colonia, Mexico City.](image)

Due to their advancing age and often declining incomes, most owners face severe constraints on their capacity to make major on-lot housing refurbishments. With the exception of the home owners in Chile, relatively few of the people with whom we spoke view the local or state authorities as a likely source of improvements at the home level, and expect to have to continue to depend upon their own efforts. To the limited extent that overseas remittances are a feature (only in Mexico City, Santo Domingo and Lima), somewhat to our surprise we found that remittances are rarely used for home construction, extension or housing rehab (see also Lopez, 2014). We find that middle-income homeowners and those adult children experiencing upward socio-economic mobility are most likely and best capable of achieving significant rehabilitation. For them, housing rehabilitation entails substantial remodeling, and sometimes a tear down and rebuild. Garaging a private vehicle off street is an increasing priority and is usually achieved by converting a patio or front room.
Figure 6. Three dimensional sketch up of a home in Col. Santa Lucia, Monterrey. Note the “dead spaces” under the stairwell and in the passageway to rear. Also the rooms that have no exterior natural lighting.

Figure 7. Street view of barrio Atenas in Bogotá showing different levels of deterioration and distress of the street and infrastructure.
Senior level policy makers generally have low awareness about the ongoing housing needs of consolidated low-income settlements, and then tend to under prioritize and poorly understand the dimensions of settlement rehabilitation. This became apparent in our key informant interviews when policy makers often expressed interest in our research and policy directions, but could not understand why our priorities were not targeting upgrading and infrastructure provision in the periphery. To the extent that they focused upon consolidated informal settlements at all, their concerns were primarily about insecurity, drug gangs and crime. Conversely, local government and NGO policy makers and actors have higher sensitivity to social problems and to the need for poverty alleviation programs for vulnerable populations in such areas, but they, too, are largely unaware of housing rehabilitation needs and opportunities.

NEW POLICY DIRECTIONS FOR REGENERATION AND HOUSING REHAB IN THE “INNERBURBS” – TOWARDS UN-HABITAT 2016

Most contemporary most housing policies for informal settlements continue to give priority to the more recently-established settlements, and neglect to give adequate consideration to the housing policy needs in the older consolidated areas and inner-ring neighborhoods described here. However, as emphasized above, many of these neighborhoods have outdated and crumbling infrastructure (Figure 7), high population densities, and experience a gamut of social pathologies such as insecurity, crime, overcrowding, youth gangs, widespread delinquency and drug abuse. While these latter policy challenges are on the radar screens of municipal and city officials (usually as “hot spot problem zones”), there is little in the academic and policy literature to provide orientation and guidance about the social and household organization of these neighborhoods, and even less awareness of the nature of housing deterioration and dwelling rehab needs that confront home owners and other residents. Drawing upon the findings of the LAHN comparative research project, the final part of this paper seeks to develop a conversation about this new generation of policy challenges that face planners and housing policy makers in cities throughout the developing world, especially where informal settlements and self-building form a significant part of the existing housing stock.

While the focus of this paper has been that of lower-income owners and housing rehab in consolidated innerburbs, these same locations are also the areas where significant formal and informal rental housing opportunities are to be found. Yet strangely perhaps, policy-making has been largely silent about how to expand and revitalize the rental housing market, and only recently have we begun to observe a quickening of advocacy about the importance of promoting rental housing as a key element in densification and more efficient urban land use strategies in Latin America (Gilbert 2003, 2012; Coulomb 2010; Blanco/IDB 2014). Although not considered here, rental housing expansion and improving rental housing conditions through the rehab of existing tenements and apartments will also form an important part of the advocacy coalition about housing rehab policy approaches.

Sustainable Housing Applications for Low-income Self Built-Housing

At first sight the idea of extensive applications of energy efficient and other sustainable housing innovations to low-income self-help areas might appear to be something of an oxymoron given that solar panel arrays and other energy efficient thinking is usually only associated with public buildings, large-scale mass-housing estates, in middle- and upper-income residential areas. However, if policy makers in less developed countries are seriously interested in developing strategies to embrace urban sustainability, then expanding the principles of sustainability to self-help settlements in which as much as 40-60 percent of the population reside will be an imperative. Countries such as Brazil and Mexico are already making strides in this direction (Sullivan and Ward, 2012). Moreover, as part of the 2009 American Reinvestment and Recovery Act and weatherization programs applied to low-income residences in the USA President Obama made the point that “insulation is sexy”, advocating more energy efficient and sustainable house building practices for lower income groups as well as for the better-off (Sullivan and Ward, 2012).
That paper on housing sustainability published in *Habitat International* explores the applications and savings that may be derived from a wide range of sustainable applications in self-help dwelling construction and improvements that include: weatherization, passive water heating, water and wastewater usage, solid waste disposal, recycling, and micro-environmental adjustments around the dwelling (gardens, shade, home orientation, etc.). The idea was to analyze current initiatives in the USA with a view to exploring how these might be extended to less developed countries. A key take home point of that study shows that interventions are often relatively inexpensive, and can be readily accommodated within self-help practices whether these are newly formed settlements in the periphery, or in the rehab and DIY (Do It Yourself) upgrades of older consolidated neighborhoods. For brevity reasons the priorities for physical dwelling rehab and community regeneration are outlined below in “bullet” format at three levels: macro (community), meso (interface house-street), and micro (lot and dwelling).

**Physical Rehab and Regeneration at the “Macro” (Community) Level**

At this level the aim should be to work with city and local municipal/borough authorities in order to revitalize the physical and social infrastructure of older low-income consolidated innerburb settlements through activities such as the:

- Rehab of public urban spaces and facilities (schools, playgrounds, plazas, markets etc.)
- Rehab of infrastructure and services (street paving; power lines; sewage and storm-water drainage, street lighting, sidewalks, etc.)
- Policies to improve security and local policing
- Policies to incentivize local resident participation and interventions

The principal actors are: Local government, NGOs, community organizations; church organizations, etc.

**Physical Rehab and Regeneration at the “Meso” Level of Streets and Home Frontages**

This level is all too often ignored in planning discussions and yet it comprises an important policymaking space at the intersection of dwelling and the neighborhood and includes the front of the home, the street, sidewalks, and small-scale commercial activities (both fixed spot and itinerant). Rights over the use of these non-private spaces and public access is often confused and ambiguous, and access is often impeded by a wide range of informal activities such as: cars parking on the sidewalk, garage extensions or staircase construction to the second floor from the sidewalk, the storage or dumping of building materials; economic activities (stalls), and even by daytime extensions of workshop activities out into the street (carpentry, welding, car repairs, etc.). Sidewalks become impassable as a result, and pedestrian traffic including mothers with young children and pushchairs are forced into the street. Policy making at this level needs to focus upon community and local participation and upon achieving consensus among neighbors about self-regulation and permitted activities. These might include measures such as single-side parking, the removal of obstructions, partial street closures, etc.

Principal actors: NGOs; Neighborhood and street “associations”/ groupings; local governments and municipal policing to play an honest-broker role.

**Physical Rehab and Regeneration at the “Micro” Level of the Dwelling and Lot**

This was the nub of our interest in the Latin American Housing Network study, and the aim is to identify future housing policy directions that arise from an analysis of the self-build housing and demographic processes, household organization and mobility, and the physical deterioration of these innerburb...
consolidated settlements. Space constraints do not allow for a discussion of these policies in detail; instead broad-brush dimensions are itemized as priority considerations for sustainable housing rehab.9

a) Policies to redesign the dwelling unit to meet new household structures (sharing and 2nd/3rd generation needs) that address:
   - Upsizing (additional households)
   - Downsizing (as parents die; kids move out) and recasting dwelling spaces for rent.
   - Recasting of dwelling space and uses for stakeholders wishing to live in the property, and where buy-outs cannot be agreed, to facilitate uses and rent seeking for adult children who inherit shares but who do not need or wish to actually reside in the parental home
   - Housing reconfiguration to improve privacy and access needs.
   - Planning support and technical advising for phased dwelling makeovers while living continuing to live in situ.

b) Creative policies for physical rehab and housing renovation to achieve:
   - Retrofitting of basic services (rewiring; water; drainage)
   - Upgrading of bathrooms
   - Assistance with repairs and renovations (roofs especially)
   - Coping with particular design faults or problems (flooding, damp, stress cracks, etc.)
   - Hazard reduction and dangers (2nd floor safety railings; safe stairways etc.)
   - Application of low cost green and other sustainable technologies (passive water heating; energy efficient doors and windows; water conservation practices; recycling; use of patio, etc. (See Sullivan and Ward 2012.)

c) Policies to Rehab spaces in the dwelling for economic or rental usage
   - Renting, workshops, storage space,

**Financing Policies for Neighborhood Regeneration and Housing Rehab**

In order to achieve any success in physical rehab at each of these three levels suitable financing and fiscal measures must be developed to facilitate and incentivize rehab including:

a) Policies to facilitate municipal investment in community regeneration
   - Development zones; tax credits; investment in schools, markets, and public spaces; renewal of infrastructure, etc. (This will require tools and policies to leverage municipal investment; private sector collaboration and engagement, etc.)
   - Policies to improve security
   - Policies to engage local resident participation and meso-level interventions

b) Policies to make the market work more smoothly
   - Financing mechanisms (mortgages etc.) to facilitate property sales; buy-outs by inheritor stakeholders; etc. (Actors here will include: Banks; Government support for private sector lending, etc.)

c) Loans, credits, grants and incentives for rehab and housing renovation (where possible tied to “green” initiatives)
   - Governmental and private sector supports for rehab
   - Provision of micro credits for home improvement and rehab
   - Financial assistance to promote clean titles among stakeholders in order to leverage loans and financing.

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9 Ward, Jiménez and Di Virgilio, (2015: 303-320), Appendices A1.1-A.1.4, for detailed examples of polices and legal instruments drawn from other countries’ practices (best or not). These policy tables may also be found embedded in a major report on the LAHN website “Publications” http://www.lahn.utexas.org/Austin%20Conference%20Materials/2011FinalLatinAmericanHousing.pdf
Legal and Regulatory Policies to Facilitate Rehab

Alongside financial and fiscal policy incentives it will be necessary to think about creative legal and regulatory structures that are sensitive to the economic conditions of low-income populations and which facilitate security and ease of stakeholder compliance, and which will minimize rule-bending, red tape or legal inflexibility and the imposition of unreachable high standards. Minimum rather than maximum standards should be set, and wherever possible will offer opportunities for convergence and “progressive compliance” to planning and legal norms, “states of exception”, etc., (Ward 1999; Roy 2008).

a) Policies to promote clean titling and new title arrangements in order to ensure security and access to loans:
   - To overcome “clouded” titles that arise due to intestacy (surviving spouse, children, etc.)
   - New forms of shared or collective property titles (“Family condominium”, etc.)
   - Promotion of Wills and reduction of legal costs associated with inheritance transfers including title beneficiary arrangements that obviate the need for wills, etc.
   - NGO dispute resolution mechanisms

b) Policies to enhance investment while improving planning and regulation compliance at the community level (macro and meso-levels):
   - Development zones
   - Social interest development zones (ZEIS)
   - Community participation and self-regulation programs tied to regeneration and maintenance
   - Protection against public and private sector interventions that may lead to displacement without adequate compensation.

c) Policies to enhance compliance with codes, and with safety standards at the micro (dwelling level)
   - Progressive compliance i.e. temporal waivers - (sticks and carrots to ensure compliance and safety standards, etc.).

Policies to Promote Social Mobilization and Community Engagement

Born of necessity, low-income self-help settlements traditionally show high levels of social mobilization and community collaboration and activism during the early stages of their development (Gilbert and Ward 1985; Ward 1999). Such active mobilization attenuates as settlements receive recognition and are integrated into the city. Thus it is necessary to promote opportunities and policies that might re-vitalize stakeholder participation around community (macro) regeneration initiatives; meso-level (street and neighbor) agreement and collaboration; and “buy-in” from micro-level (individual) home owners to embark upon redesign and housing improvements tied to housing rehab.

a) There is a need to revitalize community collaboration and mobilization around social development and physical rehab issues.
   - Work with women’s organizations, provide technical assistance; work through NGOs and existing organizations;
   - Promote sustainable community development and green housing rehab awareness through education programs in schools combined with parent – teacher engagement.

b) Planning initiatives and incentives are required to work with community in sustainable rehab and community regeneration
   - Funds and technical assistance; work through NGOs and existing organizations;
   - Prioritization by the residents themselves through town meetings and collaborative improvements
   - Policies to incentive local residents’ activities and meso-level interventions
c) Loans, credits, grants and incentives for rehab and housing renovation:
   - To women households; CCTs (conditional cash transfers) for housing rehab
   - To home owners through micro credits
   - Financial assistance to promote clean titles among stakeholders in order to leverage loans and financing.

CONCLUSION: INTEGRATING REHAB POLICIES INTO CITY GOVERNANCE AND THE HABITAT III AGENDA

As one would expect, all of these policies need to be considered within the context of city governance, and the post-1989 era has seen dramatic changes in the democratic polity and governmental structure of many nations. As well as more representative democratic systems of elections, the principal changes in governance practice are multiplex and include: i) advances in the genuine decentralization of government and decision making (Campbell, 2003); ii) new and more equitable practices of inter-governmental relations; iii) a strengthening of sub-national government (Wilson et al 2008); iv) new forms of intra-urban collaboration and planning especially between municipal and district governments in large multi-jurisdictional metropolitan areas (Spink et al 2012); v) greater citizen representation in government and rising participation in governance processes including the expansion of “Rights to the City” charters (Fernandes 2007; Friendly 2013); and vi) greater transparency and improvements in administrative and governmental effectiveness. Indeed, the whole policy-making environment has changed significantly over the past two decades, not just as a result of democratization, but has also been profoundly shaped by new development strategies and orthodoxies associated with neoliberalism, as well as changing intellectual paradigms of each decade (Ward 2005).

The first two UN-Habitat meetings (1976 and 1996) were important in shaping and recasting national housing and public-participation policies at the national levels, often with anticipated trickle-down impacts at the sub-national level. Similarly, since its creation in 2002 the World Urban Forum has provided a venue for government policy makers, NGOS, scholars and citizens to shape the broader urban development agenda on a more regular (biennial) basis. Such meetings are important, not only to sustain the dynamic and momentum of conversations about housing and infrastructure policies within the context of urban development strategies, but also because these fora also engage and inspire local policy making and public participation within cities. Thus state and municipal governance structures and practices will play a central role in the development and implementation of a new generation of housing policies for urban regeneration, and especially for thinking about how housing rehab among low-income populations might be inserted into this brave new world of national and city governance. This is especially important as several countries (Mexico, for example) that have adopted mass social housing production strategies in distant peri-urban locations with inadequate social infrastructure begin to rethink their housing development approaches and increasingly come to realize that housing rehab of the existing stock and inner-urban regeneration are more sustainable (Ward, Jiménez and Di Virgilio 2015). Inner-urban redevelopment and densification are likely to become the mantra for the next decade or two (Bouillon, 2012). While this “back-to-the-city” refocusing among national policy makers is welcome and highly congruent with the many of housing policy proposals outlined in this paper, it is also likely to be a double-edged sword. If urban redevelopment and densification is largely left unencumbered to the private sector then certain prime locations of working class consolidated settlements are likely to be targeted for removal and buy-outs causing displacement and gentrification -- processes that we have already begun to observe in Bogotá and elsewhere (Ward, Jiménez and Di Virgilio, 2015: 300).

If policies are to be developed and implemented successfully then many of these activities will need to be largely “bottom-up”: namely they will hinge upon the buy-in and self-help participation of low-income households and the opportunities that residents and neighborhoods have in self-determination of the mix and prioritization of housing improvements at the local scale. Under the new structures of urban governance
– at least in Latin America – housing rehab and community regeneration and revitalization will rely less upon “top-down” authority-driven planning initiatives of yesteryear, and instead will be built-upon collaboration and engagement with local authorities and policy makers. Without appearing to be too much like Polyanna (i.e. overly optimistic), such relations and governance practices will be need to be increasingly transparent, symmetrical, respectful, and based upon fiscal sustainability: displacing autocracy, clientelism, and patron-client relations to become largely relics of the past.

City and municipal governance is where the rubber hits the road: where effective policy making along the lines outlined above must be forged. Local policy makers and executives, security services, NGOs and citizen councils, and the residents themselves -- all will need to collaborate closely in order to develop local community agendas and housing rehab policies along the lines of those outlined in this paper. They will need to address the four dimensions of sustainability outlined above: fiscal/financial, judicial/regulatory, social/participatory, as well as the physical elements of housing policy. However, we are not there yet, and the aforementioned level of citizen participation in municipal and local governance remains a challenge and work in progress in all of the cities analyzed in the LAHN study. But the convergence of more open systems of governance, the responsibilities of citizenship to participate, and the traditions of self-help “can-do” practices at the local community and dwelling unit levels offer a major opportunity for the implementation of a new generation of housing policy that will help to recast the established working-class areas that are, today, the reality of Latin American built-up areas.

Finally, if local (district and city) governance are indeed the key, what is the role of national and regional government? National and regional governments’ primary role will be to move away from prioritizing poorly-located and inadequately-serviced mass social-interest housing estates, and instead develop more appropriate housing policy approaches that will encourage rehab and revitalization within the existing housing stock. The aim is not to direct and mandate, but rather to propitiate a series of options and, above all, to provide incentives that will lead to the adoption of sustainable urban and housing policies at the local level. Drawing upon the work of scholars and best practices in Europe, the USA and elsewhere, and adapting them to local conditions are increasing expected to exercise fiscal responsibility and to generate their own internal revenue base, so central and regional government can provide leadership by making available matching funds and subsidies to local government that support the sorts of programs outlined in this paper and which, arguably, should form an important part of the UN-Habitat III agenda in 2016.

REFERENCES

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