The value of children’s access to safe public space: building urban children’s resilience against the shocks and threats of resettlement in Manila, Philippines

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Abstract. Access to safe public space is essential in underprivileged communities because the children that live there are the most dependent on the resources of their immediate environment. Scholars have shown that accessibility improves resident’s health, increases community cohesion, and promotes play. Yet, policymakers, planners, and architects struggle to justify access to safe public space in resource-constrained environments such as resettlement programs. Part I compares two in-city and off-city resettlement communities finding that teenagers in off-city resettlement sites face considerable impediments to access. Part II focuses on 16 teenagers’ daily experiences in four off-city resettlement communities concluding that many survive deficient environments by substituting virtual spaces or accessing dangerous spaces.

1. Introduction
Imagine a single, empty parking stall. That is about the same size as the minimum floor area requirement for single-family dwellings for socialized housing in the Philippines (18 m²) and it is representative of many social housing schemes worldwide [1]. This is the total area for the average family of five to cook and eat dinner, to change clothes and sleep, to play, and to discuss private matters. The single room changes functions over the course of the day to best accommodate the family’s needs but the sacrifice is privacy and personal space. Economic pressures for the highest quantity of housing demand these spatial efficiencies. Yet, as children grow up, they need different qualities from their environment. While toddlers need almost constant oversight, teenagers need gradients of privacy to test out autonomy and space to personalize as they develop their identity. The tight and multi-purpose spaces in resettlement communities contradict children’s development as they transition from dependence to independence.

However, the house does not account for the whole environment. Secondary spaces include the outdoors (formally as parks and informally as sidewalks and street corners) as well as other buildings (such as the school, library, and store), which also contribute to a child’s landscape. These secondary spaces are public spaces - perhaps not always publicly funded but public in performance (the mall). In addition to supporting child development, scholars such as Cattell et al. [2], Parkinson [3], and Aelbrecht et al. [4] have shown that public space plays a critical role in the social lives of communities. “It contributes to people’s attachment to their cities, neighborhoods and local communities, creates opportunities for social interaction, social mixing and inclusion and community building and supports people’s well-being and individual group identities,” (Aelbrecht et al., ibid). Yet, other scholars
(Loukaitou-Sideris [5]; Madanipour [6]; Amin [7]; Low et al. [8]) dispute the reality of public space as being experienced as equitable, accessible, and inclusive.

The United Nations Sustainable Development Goal (SDG) 11.7 calls for cities and human settlements, “by 2030, to provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities,” in order to contribute to SDG 11 (making cities and human settlements inclusive, safe, resilient, and sustainable.) Developing a road map for SDG 11.7 requires a deep and contextual understanding of how public spaces are experienced. Investigating equity, accessibility, and inclusivity is best accomplished by understanding personal experiences that could pivot into regional implementation strategies.

Save the Children (Australia and Philippines), with support from the Australian NGO Cooperation Program of DFAT, and the Julie and Rocky Dixon Foundation sponsored this study as the Accessible Safe Public Spaces for Children (SPSC) project under the Building Urban Children’s Resilience Against the Shocks and Threats of Relocation (BURST) program - a 4-year program that addresses the spectrum of research-design-implementation for multiple projects (including labor-market analysis and population studies). This study describes the SPSC research and design phases as implementation is ongoing. Our research team investigated the value of children’s access to safe public space in the regional context of Philippine resettlement communities using a sequential, inductive research methodology and mixed methods. After the research phase, the project team held an intensive design workshop (a charette) to pivot the research into design and ultimately produce a detailed implementation strategy.

Officials in Manila, Philippines actively resettle thousands of families from informal, in-city communities to either in-city or off-city (peripheral) social housing communities. The high volume of resettlement projects combined with established community relationships opened a unique research opportunity to evaluate the value of children’s access to safe public space across the urban-peripheral divide. This study was guided by two research questions: 1) how does in-city versus off-city resettlement influence children’s access to safe public space? 2) how are children impacted by living in resettlement communities with limited access to public space?

Part I compares children’s experience (n=77) living in resettlement communities (in-city to off-city) through focus group discussions (FGDs) with children and interviews with duty bearers. The results indicate that access to safe public space is more important to teenagers living in off-city resettlement communities. Part II investigates the impact of limited access to safe public space for teenagers (n=16) living in off-city resettlement communities through a series of FGDs, interviews, auto-photography, and child-directed mapping. These results were triangulated by corroborating interviews with duty bearers and 105 hours of public space observations.

By investigating the value of children’s access to safe public space as a function of their developmental needs, this study contributes to the growing body of research influencing urban development policies and resettlement community planning standards to ensure that the public realm will efficiently offset the challenges imposed by small dwelling units. The preliminary results suggest that access to safe public space is especially critical to teenager’s development in off-city resettlement communities. As they struggle for autonomy and shape their identity, teenagers met their developmental needs by either accessing dangerous space or by substituting virtual space.

2. Resettlement Communities

Sometimes called planned relocation communities, resettlement communities are characterized by the premeditated and strategic displacement of a body of residents to a new location because of an imposing threat (political, economic, environmental). Many times, a distinction can be made between political threats that produce actors (refugees) who are generally resettled through processes of asylum and economic and environmental threats that generally result in large planned relocation communities. Economic and environmental threats are disentangled. Historically, environmental justifications have been cited but in practice redevelopment efforts render economic gains that contradict intentions [9].

The frequency of natural disasters combined with the Philippines’ political history has rendered a unique position both environmentally and economically. Volcanic eruptions, tsunamis, typhoons,
flooding, and landslides displace entire communities. Additionally, the nation has undergone a dramatic transformation from investing heavily in social goods and public space since independence in the early 20th century becoming a dramatic example of neoliberal governance through increased privatization.

Like many colonial states, most land was privately held. After Spanish rule, in 1901, the Philippines’ government, under American administration, held 93% of the islands’ land area - mostly through corporations like Dole [10]. During this period, American President Taft commissioned Architect Daniel Burnham to design plans for the redevelopment of Manila. While his garden-city plan was never fully carried out some of the ideas were evident in the structuring of corridors and public space. His plan possessed climatically specific designs but did not address social equity or low-income housing, which set the city up for future challenges.

As the country shifted to independence, the feudal structures that supported working class livelihoods dismantled leaving millions of families homeless. Iterations of national policies and programs strove to both fortify the significance of the national capital (agriculture-based rural-urban migration) and provide housing relief by rendering large segments of Burnham’s plan as open space for informal settlements [11]. This focus on low income housing became a cornerstone campaign issue for each succeeding president. However, there is a distinct change in presidential strategy over the century from offering space for informal occupancy to offering government-sponsored resettlement housing to offering privatized resettlement housing. Administrations have alternated through in-city or off-city models; horizontal or vertical typologies; self-help housing or holistic housing models. Since 2011, much of the government’s resettlement program is best understood in the context of disaster-risk reduction. Ever since tropical storm Ondoy (Ketsana) wreaked havoc on Manila in 2009, flooding in low-lying areas (where informal communities remain) and storm surges along coastal communities have become more frequent and have resulted in the loss of lives and assets.

Currently, Duterte’s presidency is shifting the balance away from in-city resettlements. His administration is marked by prioritizing resettlement housing for the military and informal communities residing on valuable urban land. The latter is a privatization scheme that shifts social housing to private developers, but a common consequence is that private industry prioritizes lowest cost, which frequently means resettlement sites far from the city (off-city) and frugal architecture [12]. The distance from the city also means distance from safe, inclusive and accessible, green and public spaces as is stipulated by SDG 11.7. The competing priorities of neoliberal speculation and the development of resettlement communities calls for a deeper understand of how accessibility effects residents, particularly children.

3. Methods

The research team began investigating accessibility by comparing the cases of an in-city resettlement community with an off-city resettlement community. We conducted a literature review to guide participant selection and establish regional context before conducting key informant interviews and FGDs. The analytical framework was directed at the situation of families and more specifically at the experiences of children living in each case. The study communities were Estero de San Miguel-Legarda in Sampaloc, Manila (in-city resettlement) and Towerville VI, Graceville, Bulacan (off-city resettlement). Several groups of children (categorized by age, gender, schooling status, sexuality, and dis/ability) were randomly sampled and consulted regarding their conditions. Duty bearers (parents, community leaders, and officials) were also interviewed for the study to understand the social and historical context and to corroborate findings.

In Part I, we found that children farther from the urban core had less access to public space than children near the urban core. The results also revealed that when the participants were organized by age, those in the range of “teenagers” (approximately 12-16 years old in the Philippines) faced considerably more shocks and threats than other ages. Organizing the data by other demographic indicators did not reveal conclusive findings.

Therefore, in Part II we recruited teenagers from four off-city resettlement communities to learn how they experienced their environment with particular attention to their ability to access safe public spaces. The communities selected were San Jose Del Monte Heights (SJDMH) (established in 2012 with a
current population of 4,283 families), Pabahay 2000 (est. 1999/pop. 7,045 families), Garden Village (est. 2017/pop. 494 families), and Towerville VI-A (est. 2008/pop. 8,514 families). The concept of “safety” is individually experienced and rooted in culture and politics; safety is gendered, aged, racialized, etc. Therefore, the concept of “safety” was identified by observing both resident’s behaviour and architecture that evidently reduces crime (Crime Prevention Through Environmental Design (CPTED)) paired with resident’s descriptions of their community feeling “safe.” CPTED generally employs four key strategies that are typically visible through observations and architectural analysis: territorial re-enforcement, surveillance, access control, and space management [13].

The research captures teen’s perspectives through multiple mediums as they often have trouble communicating only through words [14]. First, we randomly sampled teenagers to participate in one of four FGDs (n=49) to determine broad themes. We used the FGD results to develop purposeful sampling criteria to recruit teenagers (n=16) for multi-step participatory interviews and to develop questions. After the first semi-structured interview, teenagers were given a disposable camera to photograph their social spaces. Analysing the first-round interview responses led to emerging themes and a refined set of follow-up questions. Upon return, we asked participants to write a photo caption and to plot its location on a community map. Teenagers were then asked to draw their daily route, identify hang outs, and tour their community. After analysing the maps, we identified twenty-four ‘social spaces of significance.’ We conducted 4, 2-hour site observations using behaviour mapping in 15-minute increments to document patterns of use in each space and look for CPTED architecture and corresponding behaviours. To validate the findings, we also conducted 12 contextual interviews with school counsellors, homeowner’s association members, parents, and barangay (neighbourhood) officials.

The data collection and analysis process were iterative, following principles of grounded theory. We used Dedoose Software to systematically code and analyse the interview transcripts, photographs, and maps immediately following each method. The top codes were “hangouts,” “basketball court,” “barkadas” (clique), “walking,” “nature,” “Facebook.” To adhere to principles of child safeguarding during the research process, we initially recruited and trained 6 local residents per case to identify and approach potential child-participants and their parents for interest in the study. This step ensured the privacy of the kids (and the community). Following, we met with potential participants and their legal guardian to explain the project’s risks/benefits through a translator in the local language (Tagalog). We recruited teenagers on the basis of diversity of age, gender, and schooling status with the goal of understanding a wide range of perspectives.

This study is innovative in its mixed-method, participatory approach. Traditionally, indicator methods prioritize quantitative data, risking a failure to understand the nuance and conditionality that often embeds in social relations. For example, SDG 11’s indicator 68 is the ratio of land consumption rate to population growth rate to be developed while indicator 70 is the area of public and green space as a proportion of total city space. These indicators certainly contribute to a better understanding of public space contextually, but they do not tell about the experience. The spatial and community qualities in SDG 11 (safe, inclusive, resilient, sustainable) are experienced at an individual level. Only by pairing the quantitative and qualitative data will researchers be able to unpack the experience of public space.

4. In-City Versus Off-City Resettlements
As in many cities world-wide, when pressure for urban land increases (politically, economically, or environmentally) the administration responds through resettlement campaigns. These campaigns take two main forms with vastly different landscapes. In-city resettlement sites transfer the benefits of urban living while mitigating some of the unsafe living conditions. They are often mid-rise apartment buildings of 20-60 families and when planned through a participatory process, they usually are located within 3 km of the original location – to preserve livelihood opportunities and social networks.

Over the years, Manila has expanded spatially to encompasses nearly 50 times the land area originally laid out by Daniel Burnham increasing the economic pressure for central property. The informal settlement of Estero de San Miguel and it’s corresponding in-city resettlement are both located in Manila’s historic core. After 40 years of occupancy, local business owners called for the eviction of the
residents in Estero de San Miguel. Justified by the threat of a large fire in 2006, the government also faced pressures from local developers looking to expand the Pasig Riverwalk and even raised possible concerns of floods due to climate change. The current site was deemed uninhabitable by an informal community but available for more robust private development.

A local NGO, the Urban Poor Associates, worked with the residents to engage in a participatory planning process. Of the 91 families in Estero de San Miguel, 20 families attended over 500 meetings in the span of 2 years. These families eventually, “won” the right to an in-city resettlement through the Department of Social Welfare and Development (DSWD). The government constructed a mid-rise apartment building less than a kilometre away. However, the government cited cost-overruns for relocating the entire community and families who did not participate in the planning process were resettled to Towerville VI, over 40 kilometres away on the urban periphery. Towerville VI is a very large social housing project with over 8,000 resettled families all living in small single-family homes (about the size of a parking stall) from all over the Metro Manila area.

While in-city resettlements cost more and take up valuable urban space, off-city resettlement communities are usually located on low-cost greenfield sites (mostly agricultural land) on the urban periphery. Hours away from the city, work is harder to find and access to services is low. Therefore, off-city settlements have been promoted as a low-cost way to mitigate some of the more tangible architectural concerns, but they exacerbate social and economic issues. Off-city settlements are founded on efficiencies and often use the “economy of scale” principle to lower construction costs.

In the off-city resettlement case, Towerville VI, residents were relocated by the National Housing Authority under President Aquino from different areas of Manila (and from different programs with different financial packages) often not speaking the same dialect. The scale of the community combined with social fragmentation further inhibited community cohesion and increased crime. Towerville VI is located on the outskirts of San Jose del Monte City about 40 kilometres from the origination site. It is only accessible via personal automobile (most families do not have a personal automobile) or through a system of tricycles, jeepneys, and private buses leading to a one-way commute time of over 5 hours.

In Part I, we found that residents of the in-city resettlement had access to urban amenities such as public space, transportation, and livelihoods. Streets in the urban core were well formed with differentiation between the sidewalk and the vehicular traffic - encouraging pedestrians who contributed to CPTED’s natural surveillance principle. The diverse density created opportunities for businesses and thus livelihoods. Because the community was small and surrounded by mixed-income development, the amenities around the site were higher quality than the amenities of the off-city resettlement site. Residents notably described their identity in the context of the district rather than the boundaries of the resettlement community. Children in Estero de San Miguel were able to continue at the same school, maintained relationships with friends (stability), and had familiarity with their environment. Their site was walkable to many types of public spaces that supported CPTED principles - a park, two malls, sidewalks and street corners lined with commercial amenities. Both in-city and off-city resettlement sites have no formal place for children to play and have similarly sized housing units (Estero de San Miguel – 26 m2, Towerville VI – 22 m2). They also both had reasonable access to healthcare services. However, a key threat for in-city resettlements was the high potential for eviction; families were hesitant to invest in their unit because of the fear of another relocation.

Comparatively, children in Towerville VI experienced more shocks and threats during the resettlement process than the children in Estero de San Miguel. They experienced weeks and months without electricity during the day and running water, some had to stop schooling altogether and a few of them had to go back to their previous grades because of complications in securing transfer records. Towerville VI has few transportation options and lacks sidewalks for pedestrians. Further, because parents could not find livelihoods on the urban periphery, they commuted to Manila leaving their children home alone for long periods of time – in some cases, parents only returned on weekends. The residents did not have access to urban amenities.

The barangay did self-fund a small park adjacent to the Graceville management office (approximately 500 m from Towerville VI) that had many CPTED features such as onlooking windows
from staffed offices and maintain trees and facilities. However, many children were not allowed to go unsupervised because of the perceived danger of the street (this is a function of the lack of community cohesion), the restricted hours, and the older adults that used the space. To make up for the lack of shops and markets about 20% of residents operated a home-business (sari-sari store). While an opportunity for internal entrepreneurship, none of the participants relied on it as primary income and all stated that it was spatially challenging as it cut into the already cramped family space. It is in front of these sari-sari stores in the street that children found accessible safe space. The quasi-market streetscape provided both a justification for being there but was close enough to home to feel safe.

5. The Impact of Limited Access to Safe Public Space

The teenagers in these four communities had some similar experiences that warrant generalizable themes. On their ideal space almost, all teenagers mentioned “trees” and “grass.” Those who had bikes imagined trails for riding while others, picnics. They talked a lot about nature – about wanting to be in it – as if being surrounded by agricultural fields wasn’t “in nature?” They differentiated between the ‘controlled’ and surveilled nature of public space in urban areas like parks and the ‘dangerous wilds’ that surrounded them. They told terrifying stories of rapes, kidnapping, and animals that lurked. They didn’t dare explore or play in the wild expanse. The exception was a few younger boys in Garden Village who liked to climb down the floodwall and swim in the river that divided their community from an informal settlement. However, they also said it was dangerous to be there because the informal settlers would throw rocks at them and sometimes adults would even cross the river to steal from their houses.

Their parents were afraid for them too. Teen’s often said, “it’s just better to stay close to the house.” The parents in Garden Village allowed their kids the most freedom because gate-guards controlled community access, and everyone knew everyone. This is a clear example of CPTED’s territoriality principle. There was an element of this type of freedom in the cluster formations of SJDMH but most teenagers described tight spatial boundaries – usually a block or two from their home and strict curfews. Girls were allowed less freedom under the guise of protection while boys were allowed more space and time. In communities of mixed relocates, teenagers (both girls and boys) talked of gang violence and the pressure to join a group for protection. Drugs seemed to be limited to alcohol and cigarettes (about half of the teenagers participated) but none mentioned or knew anyone on harder substances.

None of the communities had formal, nature spaces except for the Graceville park. Half of them had basketball courts (the ideal Filipino child is male and plays basketball, girls have a limited childhood they stay home helping with chores and childcare). The teenagers used the street corners as their open space by default – especially the space in front of the sari-sari shops. They sat on the street (there are no sidewalks), leaned against the houses, and sometimes escaped to the alleys. Some more daring youngsters converted unoccupied houses into fort-like headquarters for their barkada (friend group). Sometimes they had standing meetings to play but many coordinated through Facebook Messenger (FBm). All of the teenagers in this study had a personal cell phone and most had a smart phone. Very few actually had a data plan but FBm operates without data. They spent much of their free time at the peso arcadia (computer café) playing multi-user video games or FBm. Their social media connections were both local friends as well as friends back in Manila and abroad. They used this outlet as a means of identity expressed unattached to their physical surroundings. The peso arcadia was, in practice, the only accessible safe public space for teenagers in resettlement communities.

Older teens made the long walk to the commercial centre to use the free Wi-Fi. It took an hour each way and many skipped out of school to make the journey and return before dark. The route wasn’t safe at night. They had to decide to walk the busy highway and risk getting hit by a car or through some rural neighbourhoods where gangs controlled the streets or drunkards loitered. But they relished the time they spent at the mall. There was air conditioning, free Wi-Fi, and a Starbucks. The bright over-lighting made it feel safe and all of the white surfaces made the mall feel clean and even modern. It was so unlike their community – dark, stained concrete, trash everywhere and nowhere to sit. At the mall, they felt released from the problems in their community and their family. Their Facebook pages said as much. They took selfies in front of popular stores and hung out on the mall’s expansive second-level patio that overlooked
a greenfield site. There were so many people there and security guards. This was their ideal safe public space, but it wasn’t reasonably accessible.

The issue of access was a key challenge for teenagers living in off-city resettlement communities. Without access they survived by using virtual spaces to meet some of their developmental needs while others that were more daring commandeered dangerous spaces or risked dangerous access. As the research phase concluded, the research team transitioned to designing strategies to improve access.

6. Implementation
BURST is a comprehensive four-year project with the first year dedicated to research and design and the three following years for implementation. The Theory of Change workshop was modelled after a design charrette to quickly, collaboratively, and creatively pivot the research findings into a detailed implementation strategy. The workshop included break-out teams that “tested” implementation strategies on an invited jury of key stakeholders (including residents of resettlement communities) as well as the appropriateness of CPTED principles. While the theories and principles underlying crime prevention approaches may be largely universal, Tinus Kruger and Karina Landman showed in their study on CPTED applications in South Africa that “the application of these theoretical approaches and the methods used to implement a particular approach may differ from those generally used in more developed countries” [15]. The design charrette was a critical means of contextualization.

This vigorous process of iterative design allowed all key decision-makers to be informed and to invest in the strategy. Over the course of 3 days, our team addressed the problem of access to safe public spaces for teenagers in off-city resettlement communities by defining the audience, the entry-point, the steps for change, the measurable effect, and the wider benefit. We developed sub-objectives to guide our implementation strategy for children’s access to safe public spaces:

6.1 To support teenagers to engage in the planning & design of resettlement communities
- Train teenagers on basic planning and design principles (including CPTED)
- Socialize the value of inclusive participatory processes to design professionals
- Develop a policy for teen participation in the planning and design of resettlement communities

6.2 To identify primary qualities of safe public spaces (considering informal and formal spaces for play)
- Continue qualitative research focused on the experience of resettlement residents
- Develop a regional (and culturally appropriate) design guide for safe public spaces

6.3 To incorporate nature into community design through child-led initiatives
- Establish teen community organizations to implement community beautification projects
- Develop a policy that incentivizes developers to designate formal space for nature
- Educate resettlement communities on the value of nature within the community

6.4 To support a technical review of resettlement community plans for in the interest of the child including gender inclusivity, developmental needs, safety, and accessibility
- Identify and screen for CPTED principles in public space
- Educate design professionals on the nuance and value of public space (formal v/ informal)
- Socialize the value of inclusive participatory processes to design professionals
- Develop a policy requiring Architects to review Construction Documents for CPTED principles

7. Conclusion
Access to safe public space is essential in underprivileged communities because the children that live there are the most dependent on the resources of their immediate environment. Although research indicates many benefits to safe and accessible public space, practitioners and politicians are not able to justify them in resource-constrained projects like resettlement communities. Officials in Manila, Philippines actively resettle thousands of families from informal settler communities to in-city or off-city (peripheral) social housing communities. The high volume of resettlement projects opened a unique research opportunity to investigate the experience of limited access.
The first phase found that access to safe public space is more valuable to teenagers in off-city resettlement communities. In-city resettlement communities have formal and informal public spaces that are “safe” because they have some CPTED principles while off-city resettlement communities lack CPTED principles in the public domain. Additional cultural, economic, and institutional factors are also significant to the built environment of both types of resettlement communities.

In Part II, the research team worked iteratively with teenagers in four off-city resettlements to describe how they socialize outside of their home, the accessibility of safe public space, and how they meet their developmental needs when safe public space is absent. The small house size inhibits teenager’s development because they lack privacy, personalization, and independent socialization. Safe public spaces have the potential to offset this deficiency because they allow teenagers freedom to test their identity and the autonomy to socialize. The research team found that teens in off-city resettlement communities live in a heightened state of fear about their community. Females live on restricted landscapes while males are likely to venture into dangerous public spaces. Virtual space (specifically FBm), in some cases compensates for the need for autonomous socialization.

Broadly, SDG 11.7 should incorporate qualitative methods that seek to describe the experience of people in the built environment as indicators. More specifically, BURST is an example of a research-design-implementation project that leveraged the design charrette to pivot research findings into a tangible implementation strategy.

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