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# Can Tall Buildings be Child-Friendly? The Vertical Living Kids Research Project



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## Carolyn Whitzman

Dr. Carolyn Whitzman is an Associate Professor in Urban Planning at the University of Melbourne. She is the author of *Suburb, Slum, Urban Village: Transformations in a Toronto Neighbourhood 1875–2002* (University of British Columbia Press, 2009), *The Handbook of Community Safety, Gender, and Violence Prevention: practical planning tools* (Earthscan, 2008), and the co-author of *Safe Cities: guidelines for planning, design, and management* (Van Nostrand Reinhold, 1995). Previously, she worked for the City of Toronto on healthy city initiatives. Dr. Whitzman has an international reputation for her work on the prevention of violence. Current research interests include the development and evaluation of integrated violence prevention initiatives at the local government level, increasing independent mobility for children, and the policy implications of planning for healthy and equitable cities in a national and international context.

“The challenge for urban planners, developers, and researchers is to respond to children’s articulate and nuanced understanding of their environmental preferences, and to proactively plan for child-friendly cities, including in the high-density environments increasingly being found in both inner city and suburban locales. Children should ‘belong’ in high-rise flats, just as they should belong everywhere else in a truly inclusive city.”

Australian skylines have undergone a profound change in recent years, with the emergence of new high-rise residential developments occurring in tandem with economic restructuring and changing household demographics. The Vertical Living Kids research project is sparked by a precipitous decline in children’s independent mobility across Australia, and by the fact that there is virtually no Australian research or media coverage of children living in central city apartments rather than more traditional suburbs. As intensification of Australian cities becomes orthodox in Australian planning circles, consideration must be given to how these environments can support children’s health and wellbeing, and their right to the city.

## The Vertical Living Kids Research Project

The research project entitled: “Vertical Living Kids: Creating Supportive High-rise Environments for Children in Melbourne, Australia” was conducted from July 2008 to December 2009 and funded by the Victorian Health Promotion

Foundation [VicHealth] (Whitzman & Mizrahi 2009). The research project had two objectives: to explore the built and social environmental determinants of children’s independent mobility (CIM) in central Melbourne’s high-rise housing, and to uncover international best practice in planning policy for these communities. Children’s independent mobility is defined as the freedom of those under 18 to explore public space without adult accompaniment (Hillman et al. 1990). Forty children and their parents (18 living in public housing and 22 in privately owned housing) – aged 8 to 12 and all in grades 4 to 6 of primary school – participated. We used a range of qualitative and quantitative techniques, including children being provided with a disposable camera for a week and then creating an annotated collage of their pictures, a travel activity diary filled out by children, GPS and accelerometers to measure energy expended and geographic

## ...legacy

“We’re here as stewards to protect this New York City icon... I’m not concerned about the views from my building, I’m concerned about the views of my building and its legacy.”

*Anthony Malkin, owner of the Empire State Building in response to a nearby proposed 1,200 foot development. From “King Kong 2.0 as Tower Topples NYC Skyline”, The Architect’s Newspaper, August 25, 2010.*

Public Housing Kids (18 children)	Private Housing Kids (22 children)
Nearby green open space (13 children)	Commercial spaces (18 children), major downtown shopping centers (12 children): milk bars, fast food shops, laneway shops downtown
Commercial spaces such as milk bars and other local shops (8 children)	Public spaces not specifically designated for children (17 children): Federation Square (large multi-purpose public space), Southbank promenade (riverside walk, with lots of shops and restaurants), City Library
	Play spaces (12 children): skate parks, adventure playgrounds, tennis courts, Flagstaff Gardens (mid-size park adjacent to downtown)
	Private amenities within apartments (7 children): communal green spaces, pools, tennis courts, but 4 of these children complained about restrictions on use
	Train stations and tram stops they use to get to places (7 children)

Table 1. Places children like and regularly use

Public Housing Kids (18 children)	Private Housing Kids (22 children)
Aspects of their housing estates (13 children): boring parks (for little children), "druggies" or "hobos" on the estate, lifts breaking down, graffiti and maintenance, limited variety of shops	Public transport and road safety concerns (12 children): difficult intersections to cross, noise from roads, volume of traffic (particularly truck traffic), tram stops dirty and trams crowded, approached by beggars at tram stops, people smoking at tram stops
	General personal safety concerns (6 children): "angry" or "scary drunks" (particularly near pubs), graffiti ("bozos trashing places")
	Landmarks that are "boring" (4 children): State Library, Arts Center

Table 2. Places children are concerned about / do not like

territory covered, a parental survey, and a desk-top policy review. In Australia, high-rise housing is defined as buildings comprising of four or more stories (Australian Bureau of Statistics 2004, 166). We interviewed children living in buildings between 4 to 50 stories high.

We embarked on this research because the concept of children growing up in high-rise housing is still treated as something abnormal in the Australian context. This is despite widespread high-rise public housing constructed in the 1960's, private market apartments being promoted as part of urban intensification from the 1980's onwards, and the fact that children routinely live in high-rise environments in many cities in the world, including London, New York, Singapore, and Hong Kong (Costello 2005). Partly, the issue was that high-rise housing was conflated with social issues in public housing; with the high-rise form itself "considered to be alien to the architectural and housing preferences of

the Australian urban citizenry" (Jamieson & Jacobs 1996, 78). As a result, both developers and planners involved in the massive redevelopment of Melbourne's waterfront and central business district in the 1980's and 1990's assumed that new residential towers would be populated by childless households, and accordingly designed and advertised them as family-free zones, without sufficient community services, facilities, and open space for families (Costello 2005; Fincher 2007).

However, families with children are found in these new central city flats. In 2001, 20% of the population in high-rise units across Australia were living as a family containing children (Australian Bureau of Statistics 2004, 169). In 2006, parents with children below the age of 12 comprised 7%, 5% and 9% of households residing in Docklands, Melbourne Central Business District, and Southbank respectively (City of Melbourne 2008, Appendix 2). By 2021, children aged 14 and below will comprise 7.7% of the total population of these areas,

equating to just over 4,000 people (City of Melbourne 2008, Appendix 19).

One of the few Australian studies to compare children's experiences in both public and private high-rise flats – conducted by Ross King and colleagues in Sydney (King 1974) – found significant differences between the two samples. Children residing in public housing generally played with friends living in the same block and had more independent mobility within smaller ranges. Children residing in private high-rise housing generally engaged in more home-based and structured activities, but also had a greater range in terms of distances travelled. The children in private housing generally responded to nearby facilities more positively, although child densities were greater in public housing (King 1974). In short, "apartment children do not live in a vacuum" but are "embedded in more encompassing social, cultural, and spatial systems that may alleviate or exacerbate any effects which may occur" as the result of the high-rise design (Van Vliet 1983, 227).

## Research Findings

Our research, undertaken 35 years later, largely mirrored the results of the 1974 King's study. Children in public high-rise housing experienced relatively high levels of independent mobility: 62% of their journeys were undertaken either alone or with other children, while only 17% of trips taken by the private high-rise sample were undertaken without adult accompaniment. 85% of parents in our admittedly small sample of 28 (20 of whom living in privately owned housing) said that their children were allowed to travel without a parent to school, 59% allowed them to travel to park or playground by the age of 12. In comparison, a recent study in Melbourne's suburbs found that only 59% of girls and 65% of boys aged 8 to 12 regularly walked or cycled to school, and 40% of girls and 48% of boys who regularly walked or cycled to parks, ovals, and playgrounds (Timperio et al. 2004, 42).

The geographies of children in public housing were dominated by local, designated play spaces that were perceived as unsatisfactory by the children (see Figure 1 and Table 1 ↗



Figure 1. Play spaces near public housing that children don't like or want improved

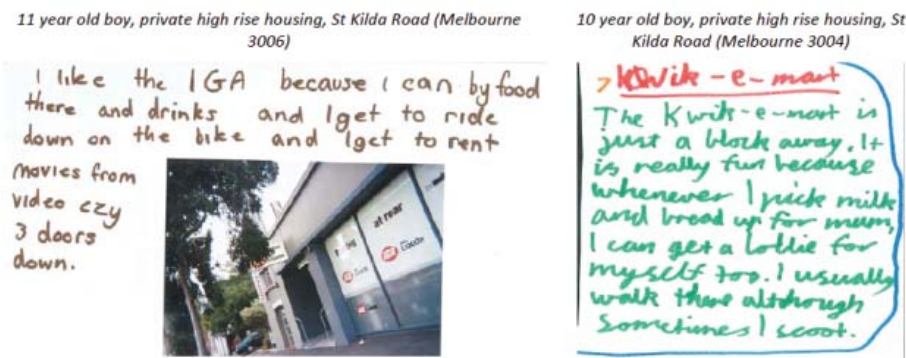


Figure 2. Commercial spaces near private housing that children like

and 2). For instance, one 11-year old boy said he did not like the park on his estate because,

"It is boring and there is nothing to do. It is for little kids. Most of the things in the playground are broken."

Despite their limitations, the play areas were seen as good social spaces for children, as one 10-year old boy pointed out,

"People of my age go there. No parents. It makes it fun."

In contrast, children in privately owned housing not only explored throughout a greater territorial range but used a wider variety of spaces: downtown shops and other leisure activities as well as schools travelled to

by public transport (Whitzman & Mizrahi 2009, 3, 42-47). Only 8 children living in public housing, or 44% of the sample, described commercial spaces, mostly local shops such as milk bars. In contrast, 18 of the private housing children, comprising 88% of the sample, identified commercial spaces they liked in the photo collages, including major downtown shopping centers: Federation Square and the Southbank promenade (see Figure 2 and 3). One 9-year old girl in privately owned housing said,

"I like how we live down the road from the shops because me and my friend can go down and get dinner when we are ready"

An 11-year old boy said,

"I love the trams because they take me where I want to go."

Unfortunately, several children in privately owned housing complained about restrictions on their play, such as the 11-year old girl who said,

"I don't usually go down to the courtyard because people don't like it when you play games and be loud. And there aren't many kids in the building" (Whitzman & Mizrahi 2009, 45-47) (see Figure 4).

The inner city local governments of Melbourne and Port Phillip contributed considerable staff resources and have resolved to follow up on the findings of the research as part of their Child-friendly Cities initiatives. The State Government Office of Housing, responsible for public housing adjacent to the central business district, was also involved in the advisory committee for this research and plans to use the findings to inform their revitalization strategies. The Australian Research Council has awarded a large grant to a number of researchers, including Associate Professor Whitzman, to expand this research across a range of environments in Australian cities (CATCH: Children's Active Travel, Connectedness, and Health; ARC-Discovery Project DP1094495, 2010-2013).

The reactive approach now being taken in Australian cities can be contrasted with Singapore, where high-rise housing, mostly publicly owned, has a range of apartment sizes in each building and an enforced planning policy with a range of play spaces and services that support families. For instance, every block of buildings is expected to have a small market and/or a coffee shop in the ground floor or within a short walk. Many blocks have ground level void decks, equipped with benches, tables, and bicycle racks. Childcare facilities, games courts, and/or children's playgrounds are also expected for every group of three to four buildings, and are linked by footpaths to schools and neighborhood centers (Yuen 1995).

In Vancouver, similar downtown residential intensification to Melbourne was supported by High-density Housing for Families with



Children Guidelines, which mandated maximum walking distances to primary schools, day care centers, after school care facilities, community centers, grocery shopping, and public transport. It also mandated a minimum number of family units in housing and emphasized opportunities for natural surveillance of communal play spaces from these units (City of Vancouver 1992). In 2008, a post-occupancy evaluation of False Creek North – a 67-hectare brownfields redevelopment site that had become the home to over 10,000 people over the previous decade – found that 96% of respondents claimed they would recommend living in their neighborhood (Hofer 2008, 7). Children and their parents found that while the high-density housing guidelines were generally effective in terms of proportions of family units, surrounding land uses, and walkability, even more social infrastructure was necessary: “the daycare and school are full, the grocery store is expensive, and there are not enough activities for older children throughout the development” (ibid, 168).

### Reactions to the Report and Future Research Direction

Geoff Woolcock and Brendan Gleeson – two



Figure 3. Southbank Promenade is a well-used and well-loved part of the central city. Children like biking and rollerblading, as well as walking, along this pedestrian precinct © Jana Perkovic

prominent Australian urban researchers – have recently raised the alarm about the impacts of higher densities on children. “Far from being a child-free housing type,” they contend, “flats house significant numbers of children” (Woolcock and Gleeson 2007, 1014). They raise concerns about high-density housing in relation to low income families, but also more general questions about the impacts of living

in flats on early development and early learning, the allegedly transitory nature of high-rise living, lack of interior space, and poor open space provision (ibid, 1015).

However, there are three problems with this conflation of high-rise and/or high-density living with poor health and wellbeing outcomes for children. First, as discussed above, most children in “traditional” Australian suburbs are not enjoying independent

exploration and outdoor play. The children in our small sample had as much or more independent mobility and use of active travel as their suburban counterparts. Second, there are well-designed flats, with excellent adjacent open spaces, in well serviced inner city neighborhoods, just as there are increasingly poorly designed detached houses, without any backyards, in outer suburban communities that have no destinations within walking distance. The issue may be one of adequate social infrastructure, good design, and supportive planning policies, rather than of housing type (Whitzman 2001). Third, as is recognized by Woolcock and Gleeson (2007, 1016), there is a “broader lack of emphasis in relating children and young people’s experiences in relation to place.”

The response to the release of the report illustrates some of the current Australian debate about children in flats. An online comment on an opinion piece by the author (Whitzman 2010) included this contribution from “Kat,”

“I think medium-density living can be great for children, if adequate parkland and schools are in the mix. It certainly challenges our dominant, ‘have kids then move[d] to a bigger house a little bit further out’ culture and is unpalatable for some on that level. ↗



Figure 4. Despite being in the central city, in a vicinity with no adjacent parks or playgrounds, these high-rises overlook a parking lot deemed “very ugly” by children living there © Jana Perkovic

12 year old girl, private high rise housing, St Kilda



Figure 5. Mental map of 12 year old girl in private housing (Whitzman & Mizrahi, 2009, cover image)

It is the way of the future though... I loved the 'burbs' as a young child but in my teens it was horrible as there was one bus an hour to the local shopping center which in itself was an uninspiring place (but there was nowhere else to go), there were no effective pathways from one suburb to the next so the option of walking or riding was curtailed... I think the death of the quarter acre block is not a bad thing. It's going to create a better city... more interesting and dynamic."

"Tina," a parent living in inner city Melbourne, said.

"We have been living in apartments in Melbourne for the past six and a half years (Southbank and Docklands) and get annoyed with people who describe inner city living as 'battery hen' or 'noisy' living. Don't judge a lifestyle you don't know. Since living in the city we walk much more, have

lots of things to do and the kids in our neighborhood, have a swimming pool in our building, wharf areas to go rollerblading, museums, parks, beaches and much more at our doorstep. How many suburban kids actually play in their backyard regularly? I think it's a romantic dream based on childhoods 50-60 years ago when kids climbed trees and played in their backyard instead of using Xbox, etc."

"Shan," another parent living in a flat, added,

"My family of four live in an apartment, [and we have] kids aged four and five. By the time we have finished school, had a full-on play at the park, bathed and done our homework we would only neglect our backyard until some poor sod would have to mow and trim it. But, I would love to see some buildings try something different... a design that is family friendly in a number of ways. A large family play area (indoor maybe

leading to outdoor) maybe even a long day care facility, rather like a family version of the over 55's theme?"

In contrast, "PostGrowth World" posted this comment, typical of the debate on urban growth in Australia,

"Kids belong in high-rise like a fish belongs on a bicycle... If they don't know any different, then they are probably perfectly happy. You can be sure that any child taken from a decent-sized suburban yard and stuffed in a concrete box won't be quite so content. It's all designed to gradually bring down our expectations and normalize this lifestyle to accommodate the government's fixation on bulging our population. Rather than ask how we are adapting, ask why we must adapt. Do you believe you have some stake in this growth? If so, you can only be the minority of [the] very wealthy or [a



property developer. Don't condemn future generations to 'battery' living. STOP POPULATION GROWTH."

"Jane" mourned a potential loss of nature in children's lives, based on the nostalgic view of Australian childhood alluded to by "Tina,"

"It was interesting when my daughter and her young family moved back to our acreage from a mid-terrace in Scotland. The little girls, while confident and happy to run and play in shopping centers and parks, had absolutely no concept of straying away from the house and into the yard to explore, get dirty and make their own fun, grow their own flowers and vegetable and collect the eggs each day. I have no doubt the social engineering will be successful and you will have all your children, who know no better, happy in your concrete jungles but spare us the moralizing. We'll just say goodbye to the sight of tow haired kids wandering along the road with their arm over the shoulder of the faithful old family dog."

Many contributors to the debate recognized that it is the quality of the surrounding environment that is most important to children as much as the housing type, such as "notsikd,"

"We can learn a lot from Israel. There, most families live in high-rise apartments because it's a tiny country: enclosed playgrounds, kindergartens, schools, parks right next door, all of which are visible from balconies. They have lots of friends within the building. There are bike paths, pools, gyms, etc., and extensive play and recreation areas nearby. There is a great spirit of neighborliness, friendship, and mutual support between families. It's great!"

Missing from this online debate, of course, were the voices of children themselves. Adults talked about their own experiences as children, or their experiences as parents, but the point of this research was to treat children as experts in describing their own lives. While our research was exploratory in its nature, one of the conclusions is that the children we interviewed generally like living in central city flats. Many of the children enjoyed aspects of living in high-rises downtown: views from their units, being in the center of the action. One

8-year old girl summarized,

"I like living in the city because it has more things to do and play" (Whitzman & Mizrachi 2009, 45).

A 12-year old girl provided a detailed map of "her" neighborhood likes and dislikes with the annotation: "Love living here!" (see Figure 5).

The challenge for urban planners, developers, and researchers, is to respond to children's articulate and nuanced understanding of their environmental preferences, and to proactively plan for child-friendly cities, including in the high-density environments increasingly being found in both inner city and suburban locales. Children should "belong" in high-rise flats, just as they should belong everywhere else in a truly inclusive city. ■

### Acknowledgements

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## ...apologize

“Anybody that builds a building in New York City changes its skyline. We don't have to run around to every other owner and apologize.”

*Michael Bloomberg, New York's mayor, on 15 Penn Plaza's planning approval. From "New York Skyscraper to Rival Empire State Building", The Guardian UK, August 27, 2010.*

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