

THE FUTURE OF THE FAMILY HOME

Those of us living in vibrant globally connected cities are experiencing a housing affordability crisis. We accept the stacking of small residential units ever higher into the sky as the solution for abating the rising cost of housing. While we focus our attention on affordability, we overlook an equally important aspect of housing: its social sustainability. “You measure what you care about”, is an appropriate adage in this context. We have no shortage of real estate data related to the cost of residential properties, but what is missing is data on the correlation between mental health and the design of our buildings and cities. We are social animals and how we live is important to our health.

By David Peterson

Our architecture needs to be shaped by social considerations if we are to contend with social isolation. This is particularly necessary for the most vulnerable in our society. Children, seniors, and those with special needs are like the canary in the coal mine: they are the early warning indicators of our collective health. When we examine the sociological data, it is apparent that we also have a mental health crisis. Social isolation has a pernicious effect on us. The slow erosion of our mental health is easy to ignore, until we examine the long-term trends and see the steady rise in anxiety and depression.

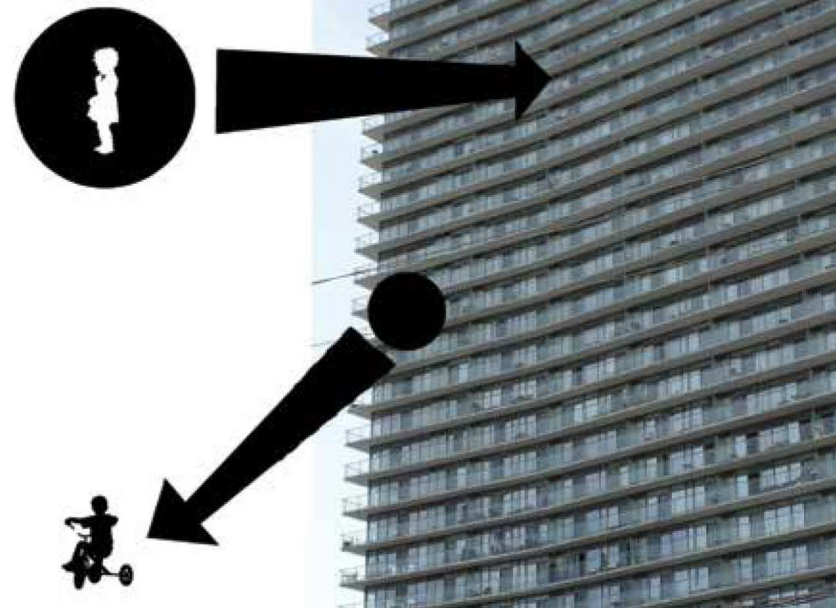
Most troubling is the research which highlights the rise in the poor mental health of our children [1]. The good news is that we already have architectural solutions that can create a greater measure of social connectedness and solve questions of affordability. What is shared in this article can be best understood, not as architectural projects, but as a demonstration of positive socio-economic typologies.

Bubble wrapped and screen addicted is the unfortunate description which is being applied to an increasing number of children. We could also add depressed and anxious. The graphs on this page are reproduced from information taken from researcher Jean Twenge’s recent book, *iGen*, why today’s super-connected kids are growing up less rebellious, more tolerant, less happy and completely unprepared for adulthood. Shockingly, the data illustrates that there are over 100,000 deaths linked to childhood suicide. Fortunately, we can reverse this troubling trend. The answer resides most fundamentally in a return to children playing face-to-face.

This seems too simple an answer to be true, until we examine all that happens when children play, especially in children 0-7 years old. “Outdoor environments fulfill children’s basic needs for freedom, adventure, experimentation, risk-taking, and just being children. [2] “To learn about their own physical and emotional capabilities, children must push their own limits. How high can I swing? Do I dare go down the slide? How high can I climb? Can I go down the slide headfirst? To learn about the physical world, the child must experiment with the physical world. Can I slide on the sand? Can I roll on grass? What happens when I throw a piece of wood into the pond? [3]

The Socially Isolating Tower Typology

A child will have to be accompanied by an adult to go outdoors. Children could live only two floors apart but never cross paths. Any social contact must be initiated by an adult.



To keep them safe, we have corralled and isolated our children into fenced-in yards.



“[People] are by nature social animals”, Aristotle

There is wide agreement among researchers that a lack of play for children negatively affects their mental health. “If children are to develop the self-regulation and emotional resilience required to thrive in modern technological culture, they need unhurried engagement with caring adults and plenty of self-directed outdoor play, especially during their early years (from age 0-7).

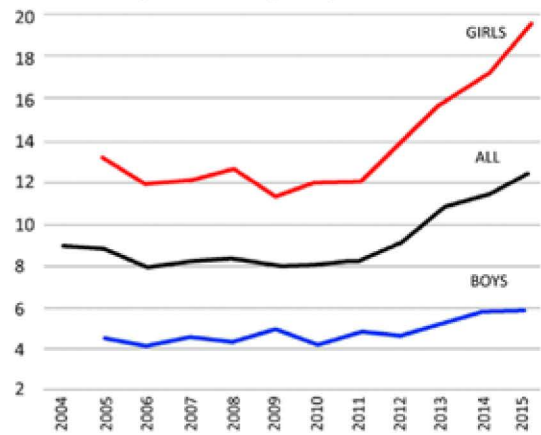
Without concerted action, our children’s physical and mental health will continue to deteriorate, with long-term results that are frankly unthinkable. [4] “...lack of play affects emotional development, leading to the rise of anxiety, depression, and problems of attention and self-control. [5] “Since about 1955 ... children’s free play has been continually declining, at least partly because adults have exerted ever-increasing control over children’s activities. [6]

The socially-isolating tower example is easy to anticipate. Parents must make an intentional effort to get their kids outside, up and down elevators and hopefully a short walk to a nearby park. Under these circumstances, we can reasonably expect that the frequency of a child’s outdoor play will be diminished. It explains the popularity of the detached house as a residential typology for families. The front-yard back-yard site arrangement offers the possibility of easily going in and out. Nevertheless, the detached house is not without problems, aside from the high cost related to this sole-ownership model.

To keep them safe, we have corralled and isolated our children into fenced-in yards. To ensure they are entertained in these entirely private domains we add swings, slides, sandboxes and swimming pools; the amenities previously found only in public spaces. All the backyard toys misunderstand the greatest attraction for a child to the outdoors is other children. In years past, children played in streets and laneways throughout neighbourhoods. Ball hockey, now illegal in many municipalities, was common. A tobogganing hill, another classic winter pastime drawing people out into the cold, is now illegal for our offspring.

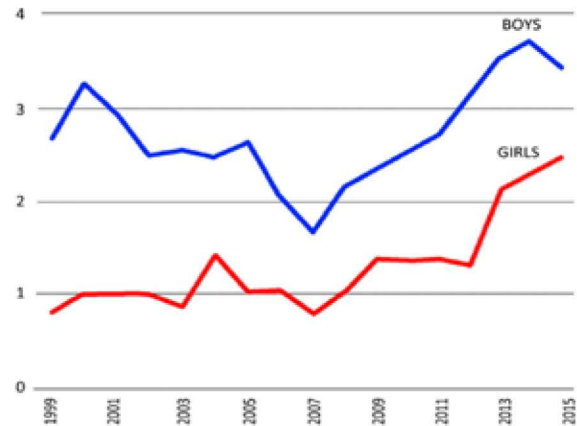
Without the sights and sounds of other children playing outdoors, yet again, parents must make an effort to get their kids outside. In this model of housing, organized sports and scheduled play-dates are the norm.

Percentage of 12-17 year-olds Experiencing Depression



Percentage of 12-17 year-olds experiencing a major depressive episode or a major depressive episode with major severe impairments in the last 12 months. National Survey on Drugs Use and Health and Human Services, 2004-2015. Taken from data reported in iGen, by Jean Twenge, 2017

Suicide Rate 12-14-year-olds



Suicide rate per 100,000 people, 12-14-year-olds, by sex. Fatal Injury Reports, Centers for Disease Control and Prevention, 1999-2015. Taken from data reported in iGen, by Jean Twenge, 2017



Spontaneous free-play, which we understand to bolster good mental health in our children, becomes less frequent. Tower and detached house, although radically different architectural forms, both struggle with social sustainability.

An answer to both social isolation and economic affordability begins by choosing different residential typologies. Courtyard buildings are residential typologies which are organized around a social space. In the Ritchie Courtyard Residence, the C-shaped building is thought of as a container for the landscaped courtyard.

The landscape opens to the south-west to best capture natural light. Storm water is held in cisterns below ground. This water is moved through sand filters and into the ponds that flank either end of the courtyard space.

Altogether, natural light, water, and trees come together to make a place where people want to gather and play. When we take the circulation system of the building and weave it through the courtyard space, we create a condition where someone might pause when they encounter a neighbour in the garden. When a child lives adjacent to the courtyard, spontaneous going in and out is made easy. Parents know their children are in a familiar and secured environment.

From a child's perspective, a friend is easily seen or heard. Parent scheduled play-dates become less necessary. As a result, children gain a greater degree of independence and can organize their own meetings; after dinner or after school. The courtyard typology can be a shared ownership model like any condo. Everyone benefits when we create a socio-economic mechanism that makes sharing easy and balanced with privacy concerns.

Economically speaking, condos work well; conversely, the detached house runs into trouble because it shares nothing. A further solution to combat social isolation is a contemporary alteration of old typologies; secondary units, duplexes and triplexes. Financially, they are highly viable because a single owner can rent the other units on the property to offset building expenses. Alternatively, two or three families can create a mini-condo building together. These models represent the greatest opportunity for reshaping the social sustainability of our cities because they do not need to include developers.

Developers looking to "flip" the land will make choices that provide the greatest short-term return on their investment. The best scenario occurs when the owner-creator is also a resident. "Cutting-corners", "value engineering", or any building life cycle analysis looks different through a long-term investment lens. The owner-occupant(s) can also make specific social-spatial choices suited to their needs.

The PlanterBox: Two Family Residences is an example of a secondary unit typology. Often, when we have a rental apartment, the "secondary unit" is placed in the basement, as encouraged by our zoning bylaws [7]. In this example, a large two-bedroom secondary unit is on the ground floor and has access to the shared ravine backyard. It becomes an ideal "family unit" [8] because it makes going in and out easy for children. The primary unit, also two bedrooms, finds its connection to the land through the floating landscape contained in a planter. The planter wraps this second-floor unit to create multiple conditions for natural light and landscape views. Like the courtyard typology, a child living on the second floor is aware of the play of other children in the shared outdoor space and is enticed outside.

"Larger units or more storage is often on the wish list for parents speaking about their housing needs. However, when we ask children what they want they most often say "places to play" [9].

A better designed social living environment creates daily unscheduled contact; because people cross paths more often. This takes some of the pressure off parents to plan all of their children's social encounters. We must consider the outdoor play of young children in our assessment of family housing.

Ontario's Day Nurseries Act can provide a legislative precedent. The act states the minimum size of play areas and encourages the use of landscape in the design of outdoor play areas [10].



None of these measures are more important than the distance from where a child lives to where they will play with others.

If we are to improve the mental health of our children, it is imperative that we make architectural forms that support social interaction and connectedness part of our legislative framework. By doing this, we will better serve families and strengthen the communities in which we all live.

DAVID PETERSON IS PRINCIPAL OF DAVID PETERSON ARCHITECT INC IN TORONTO.

1 - Richie Courtyard Residence, Toronto, 2012, David Peterson Architect Inc.

2 - PlanterBox: Two Family Residences, Toronto, 2016, David Peterson Architect Inc.

Notes:

[1] Twinge graphs showing rise of mental health issues in children

[2] Greenman, 1993

[3] Johnson, Christie & Wardle; Play, Development and Early Education

[4] Screen based Life-style harms children's health, The Guardian, 2016

[5] All Work and No Play: Why Your Kids Are More Anxious, Depressed, The Atlantic, October 12m 2011

[6] All Work and No Play: Why Your Kids Are More Anxious, Depressed, The Atlantic, October 12m 2011

[7] City of Toronto By-law, allows secondary units in buildings older than five years old. It also limits the extent to which the existing building can be modified

[8] Our by-laws need to define a "family unit" and mandate that buildings have a minimum number of these unit types.

[9] Growing Up, Planning for families in new vertical communities, City of Toronto Report, 2016

[10] Ontario Day Nurseries Act.