

How will the children play? A participatory design response to Auckland's intensification & green space provision

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Abstract: This paper discusses the process followed and the design outcomes from applying data gathered from a performance art-based urban design project ('Lookout') shared between children and adults, to the design of a small public park in suburban Auckland. The rationale for the project is that while children have both acknowledged legal rights & developmental capability to participate in decisions about their environment, they are most often left out, so there is a need for improved methods. Meanwhile, Auckland city is currently undergoing widespread densification due to housing demand and this is leading to a decrease in private green space (the 'kiwi backyard') for children's unstructured play and exploration. Set against this is diminishing children's independent mobility (IM) as fearful parents/caregivers act as gatekeepers in children's lives. As a result, areas close to home for play and greater passive surveillance by the community are increasingly important factors within urban design. The research found that even though the 'Lookout' production was broadly-focused and CBD-located, it generated information that was valuable and relevant for the park design, especially since it enabled the voice of both children and adults to be captured. Although the success of 'Lookout' and the richness of the findings we obtained are largely attributable to its writer, Andy Field, we propose the process warrants further research as a possible method of participation for children in design due to its innovative & engaging approach that could double as a learning tool. Children's concern for their city and their vision for its future as a more equitable and inclusive place was a strong design driver and a poignant prompt that we need to be frequently reminded of. Adults' nostalgia-leaning interest was also a cue of the importance of making design connections to the past.

Keywords: Children, participation, performance art, urban design

1. Introduction

The aim of this research project is the improvement of children's lives through design of outdoor public space. This is relevant in terms of the conference theme of 'surviving' development for the planet, since, by 2030 more than half the world's urban population will be less than 18 years old (Glover, 2019). The wellbeing and environmental empathy felt by this frequently ignored demographic by urban planners is vital to older generations. We will be relying on them to provide services and economic growth as we age, and to assume responsibility for the state the planet has gotten into, largely during the lifetime of the 'baby-boomers' (born 1946-1964). The main objective of this research-by-design project is investigating possible design outcomes due to application of an alternative method of design

participation with primary-school-aged children. The research question asks, what design outcomes can emerge when data from an urban design-oriented and environmentally-focused drama-in-education project is applied to a site of urban regeneration in Auckland, New Zealand?

'Lookout' is a performance art-based production developed by UK writer and actor, Andy Field and his partner and producer, Beckie Darlington (see <http://andytfield.co.uk/projects/>). It has been performed in several cities across the world and came to the Auckland Fringe Arts Festival in 2017. An inner-city primary school, that enrolls children aged approximately 5-10 years, agreed to participate and workshops were held, followed by three days of performances. The performances were unique in involving a one-on-one conversation between a child and an adult while looking out over Auckland from a central city vantage point. Qualitative data about their experiences and learning was collected from participating schoolchildren (16), lead teacher (1) and parents (4) who also attended a performance. Andy Field was also interviewed by Skype and asked questions about his vision and techniques for the production.

The performance of 'Lookout' is set within the following urban scenario. Auckland, New Zealand's largest city (1.66M), is intensifying (projected 2.4M by 2048), under the Auckland Plan 2050 (Auckland Council, 2018a). Areas of high concentrations of Government housing, mainly built in the 1940s-1960s are being targeted, especially in inner-city suburbs, for fast-tracked large-scale redevelopment. These houses were largely built as stand-alone bungalows on 650-1000m² sections of land. What one household lived on, will soon be occupied by many. With this loss of outdoor space, and in the face of raised concerns internationally about children's physical & emotional wellbeing, alongside the widely-acknowledged benefits of children having unstructured time in green/natural environments (Williams and Brown, 2012), it is questionable whether these developments will incorporate sufficient substitutes for the loss of green space around houses (the once ubiquitous 'kiwi backyard'). Meanwhile, research suggests that parental fears regarding children's safety leads to reduced independent mobility (IM), and is resulting in children being limited to outdoor spaces that are close to their homes. (Witten *et al.*, 2013).

The 'Lookout' project used a 'shared dialogue' technique to 'allow' both participants (child & adult) to contribute equally in a conversation about experiencing Auckland, considering both the past and future design of the city. As such, it represents an example of participation in design, using an alternative method, namely, performance art. It was proposed that the findings could be applicable to guide a design process that aims to shape future Auckland positively regarding provision of quality green space for children, and all layers of the community. This paper presents and discusses results from the data collected on the 'Lookout' project and applies them to the design of a chosen site in an Auckland suburb, undergoing housing intensification. As a Masters of Landscape Architecture project, the design is hypothetical and will not be constructed.

2. Theoretical Framework

2.1. Children's participation, independent mobility (IM) and Child-Friendly Cities

Through Article 12.1 of the UN Convention on the Rights of the Child or UNCRC (UNHCHR, 1989) it is an established right that children should be included in decision-making about matters that affect them, for

example the design of their environments. Further, their capability as knowledgeable and actively engaged participants has been established within disciplines such as children's geographies and childhood studies (Holloway and Valentine, 2000). Despite these acknowledgements of young people's interest and ability, we are still lagging in providing opportunities for them to participate meaningfully (Corkery, 2017). In addition, a New Zealand urban planner recently proposed that while the past 25 years has witnessed great success in increased quality and quantity of formal play spaces for children, the emerging problem is accessibility as parental fears are resulting in decreased rights for children to spend time exploring and moving about independent of adult supervision (Freeman, 2019). She comments that this is noticeably more prevalent in Minority World (First World) countries, especially in high socio-economic neighbourhoods. For example, a study in New Zealand indicates that nearly 60% of children's journeys to school are now made in cars (Witten *et al.*, 2013). This implies that areas for play should be close to children's homes. A Danish researcher concurs (Troelsen, 2014). His research, involving tracking devices worn by school children, found that an 'activity hotspot' was a humble playground in the courtyard of a large apartment complex that local children could access independently. It is also relevant to point out that while play equipment provides some of children's development needs, they also need time for unstructured exploratory and imaginative play in environments that are natural and relatively unscripted (Moore and Cooper-Marcus, 2008).

Ironically, 2019 marks the 30th anniversary of the drafting of UNCRC, and while children's participation has become much more mainstream, and is widely practiced at local government level in the Minority World, it is still often absent from design projects in the private sector. In addition, there is difficulty in coming up with a method that is practical, yet meaningful - given constraints of time, resources, ethical issues around children's involvement, methods to use and facilitator/researcher skills at guiding the process to a truly representative outcome. As Robbé (2017) points out, it can easily descend into a 'shopping exercise' with children picking items from a playground catalogue or responding to example photos by wanting one 'just like that'. It is important to delve deeper into the kinds of play or experience that is wanted and Robbé favours a method called 'Gulliver's Mapping'. This uses a large-scale map of the site and surrounding area, which participants populate with their 'footsteps', represented as memories, wishes and ideas for the site. Francis and Lorenzo (2006) mapped six 'realms' or fashions of participation over 40 years and propose that 'proactive approach' or 'participation with vision' is a more inclusive way of gathering ideas from children, adults, planners, designers and decision-makers. They claim this uses "social science methods such as environmental autobiography as a way for adults to rediscover their own childhood experiences and share them with their children" (p. 232). These researchers emphasise that it is a process of negotiation that involves learning by all parties, active listening by adults, and includes children in the all-important 'problem-identification phase'.

The UNICEF Child-Friendly Cities initiative is a global movement that advocates for urban design that has children in mind and strongly believes in children's rights and inclusion in city design (UNICEF, 2019). They consider that a city that works well for children will work well for everyone and this mantra has been widely picked up, including by Auckland Council, who, in their '*I am Auckland*' Youth Action Plan (Auckland Council, 2014), have committed to becoming more 'child, youth and family-friendly'. One of the strategy goals is 'I can get around and be connected to people'. Yet, Auckland has a long history of poor public transport and a strong reliance on private cars. A New Zealand study found that parent/caregivers fear of dangerous traffic is a top reason for disallowing children to walk or cycle independently to school (Duncan and McPhee, 2015). In a 'catch-22' situation this leads to them driving

their children everywhere and therefore adding to the traffic risks. The study by Carroll *et al.* (2015) found that what children want in their environment are friends close by, play places & close amenities, quiet places and their school. They dislike dangerous traffic & its noise, people being drunk or behaving weirdly, bullying, scary dogs, having to be quiet, rubbish and unkempt/graffiti places. In significant ways, this is the antithesis of what urban life has come to represent since cities are so car-dominated and children therefore struggle to move freely around it.

2.2. Nature experiences and the concept of 'affordance'

Many researchers have attempted to define the value of children's (and all ages of people) exposure to nature, whether it is wild or tame spaces (Moore and Cooper-Marcus, 2008). Increasingly 'green space' is recognised as contributing to 'wellbeing' (Souter-Brown, 2015). According to Heft (1988), the most important aspect is not what the environment is, but how it functions. Using Gibson's original concept of affordance, which advocated functionality within design, Heft looked at children's environments and proposed that affordability refers to the multiplicity of uses for any single thing within an environment, with the intent being to design for flexible use. For example, a swing has limited affordability while a tree has high affordability, including unlimited opportunities for play. The more prescriptive a play environment is the less affordances it has and the less value it therefore has to users. Strongly nature-based environments will have more affordances since they offer many ways of engaging with it.

2.3. Performance art as a medium for participation - 'Shared Dialogue' approach

An alternative method of children's participation that is being proposed in this paper is via the medium of performance art. The 'Lookout' project involved a conversation between an adult and a child (aged 8-10 years) about the future of their city, while looking out over it from a high vantage point. It was performed over three days with a cast of schoolchildren interacting with one adult theatre-goer each, three times per day. Prior to the performances, the children workshopped their dialogue so that some of it was scripted and recorded on small audio devices held by the theatre-goer and some was ad-libbed. The focus of the performance was a 'shared dialogue' between the adult and the child about their city, especially focused on imagining the future - 30, 60 and 90 years ahead, including under conditions caused by a natural disaster, such as may occur due to climate emergency.

This type of theatre is known as 'process theatre' or 'pedagogical theatre', defined as involving trained performers working with non-trained participants (such as school children) to partially or completely develop a piece to perform (Curtis *et al.*, 2014). According to McNaughton (2004) one of the strengths of performance art as a tool for eliciting feelings and ideas is that it immerses actors in their role while, simultaneously, giving them a degree of separation or anonymity. This provides two important criteria of successful participation - deep involvement and understanding of the issues being addressed (immersion) plus a shield created by the 'mask' of the character being played that helps draw out inhibitions through creating a comforting 'distance'. Since our interest was in the potential of the process as a method of children's participation in design, we were especially interested in the way Andy Field prepped the children for this experience.

With his creative work, Andy Field is interested in creating spaces for sharing and in evoking unusual relationships or couplings to see how they play out. In the case of 'Lookout' he wanted to give children the tools to interact with adults on their level. Therefore, the workshops held the week before the

performances were critical in setting up the conditions that played out during the performances. It led to the children feeling confident and in a position of control when interacting with each adult participant. Warm-up skits got the children doing roleplay and this was played forward and backward in time, allowing the children to imagine the same activity happening in the past and future. Time was also spent looking at overseas examples of urban development so the children were aware of how other cities were implementing 'greening' projects. In the process, they thought deeply about their own city, now and in the future and came up with questions to ask the adult participants about their views and interactions with Auckland city.

3. Method

This research project follows a research by design methodology, including identification of a design problem, then a process of data collection, site analysis, mapping and iterative design is followed to result in a final design that attempts to answer the research question. According to Roggama (2016) "research by design is a type of academic investigation through which design is explored ... by the development of a project and also exploring different materials ... sketches, mapping, among others" (p. 3). In this project, multiple layers of information were collected. Each will be explained here.

Firstly, data from the 'Lookout' project was collected in May 2017, following the performances occurring in March. Ethics approval was obtained from an approved tertiary institute committee. Sixteen children from an inner-city Auckland primary school took part in the project (12 girls and 4 boys) and they were aged 8-10 years. Two focus groups of eight children each ran for 45 minutes. These asked the children to talk about their experience of the project and provided them with a sheet of warm-up questions that were probed in more detail during the focus groups. Then, to capture the perspective of adult participants, 45 minute interviews were held in person, over the phone or by Skype with 4 parents (who had all participated in 'Lookout', although not paired with their own child), the lead teacher during the project and Andy Field, the lead artist and creator. These interviews were audio recorded and transcribed. Data was analysed thematically (Braun and Clarke, 2006). It is important to note that this data was not originally collected for the project being presented here.

The design site of Freeland Reserve was chosen due to its location in the middle of an extensive Government housing rebuilding project where 60-70-year-old single occupancy houses are being razed to replace with higher density and more modern living (e.g. warmer, lighter, insulated). This public green space reserve is a narrow, underused area of grass, some trees and a steeply-sided stormwater channel that overlays a piped and culverted stream. It is near a primary school and there is a new playground opposite. Extensive mapping and site analysis has been carried out - looking at physical and cultural aspects. There is some infrastructural and recreational work already planned for the reserve, managed by Auckland Council, Healthy Waters team and the Local Board for Mt Roskill. This involves adding paths for walking/cycling and daylighting a small portion of the stream that runs through the reserve. This will result in a permanent planted wetland and riparian edge (Auckland Council, 2018b).

The Auckland suburb (approximately 7km from Auckland CBD) containing Freeland Reserve is one of the most ethnically diverse in Auckland (reported to be up to 54 different nationalities). This is largely due to the significant subdivisions comprised mainly of State or low-rental Government housing that were built in the suburb in the mid-twentieth century. These historically housed many indigenous Māori families (6% of current total Mt Roskill population) and Pacific Island families (16%), but now have a majority of Asian/Indian (44%) and European (38%) households, largely due to immigration in the last 30 years (Auckland Council, 2016). Although State houses (traditionally constructed of native timbers

and clad with brick or weatherboard with a steeply gabled and hipped roof of clay tiles) were solidly constructed, a combination of time, overcrowding and lack of quality maintenance has left them in often, poor condition, under State ownership. They are however, very desirable on the open market and have become somewhat iconic as representative of a nostalgic era of wealth and social investment in New Zealand. The area is named for the dormant volcano, called Mt Roskill or Puketāpapa, that dominates the landscape. At 110m high this was an important Māori Pa or fortress site, pre- and post-European arrival and colonisation in New Zealand. The local primary school nearest to the Reserve is decile 1 (in a scale of 1-10, reflecting ascending socio-economic wealth) and the Acting Principal told us, when we visited, that the Reserve is currently not popular with the students due to it not offering anything of interest, and being regarded as ‘unsafe’ since it is not ‘looked upon’ by residents’ houses in the neighbourhood (i.e. it lacks passive surveillance).

4. Findings and design ideas

On analysing the data collected from the child participants in ‘Lookout’, several overarching themes emerge. These reflect these children’s concerns about their city and their future-focused approach to solutions. Table 1 below, compiled from the warm-up question sheets used during the focus groups, illustrates the wide range of points they made under six key themes identified.

Themes	Examples the children mentioned
Safer 10 children contributed comments	More lights, cleaner - less broken materials, no smoking, less violence, kids can walk home on their own, subway tunnels, less drunk drivers, less cars.
More environmentally-friendly 16 children contributed comments	Different rubbish technology (eg flying), more rubbish bins, less people chucking inappropriate things on the ground - cleaner, solar powered cars, no smoking, no traffic.
More fun/play 13 children contributed comments	More playgrounds and parks, more activities for kids, water parks, more for kids, theme parks and carnivals, Cooler playgrounds, lots of parks and greenery, less electronics, more silly/funny things, more arts & graffiti, more trampoline parks & pools.
Mobility 11 children contributed comments	More bike and walking paths, flying trams, technology, more bikes.
Greener/more nature 15 children contributed comments	Less ugly buildings, more colourful buildings and not square (interesting shapes), more parks and trees, cleaner places, rivers/parks/more nature, less building demolition, nicer buildings.
More inclusive 16 children contributed comments	Nicer people, more animal friendly places, so that you can buy the food you need, eco-friendly buildings for \$20, less expensive housing, homeless shelters, less expensive public transport, more libraries, public concerts & stuff people don’t have to pay for.

Table 1: Children’s suggestions for improving Auckland City from the ‘Lookout’ Project focus groups

This was reinforced by the transcribed data from the focus groups, with the children suggesting, for example, “I really like graffiti [street art] and I think there should be more places to do it”, “I think if we added in things like more libraries, more playgrounds, more parks ... I know I do [want these things]”. Overall, the children indicated that they did not think Auckland was very child-friendly, despite the declared aspirations of Auckland Council and the Goals of ‘I am Auckland’ (Auckland Council, 2014). They were concerned about the cleanliness of the city (especially rubbish and smoking) and its

appearance, especially the buildings, which they declared to be often ugly and boring (in colour and shape), as well as one child saying, “Auckland would be a better place with less buildings and less apartments because there are too many.” They also felt that “the transport is really bad ... it is too expensive.” However, a key concern and design wish was for the city to be more inclusive - especially regarding cost and providing for marginalised people such as those who are homeless. It is important to acknowledge that this data was collected at a time when there was a lot of media coverage about Auckland’s large house price rise, coupled with the Auckland Plan 2050 densification agenda (Auckland Council, 2018a). When the children were asked how much they felt they were influenced by what the adult participants in ‘Lookout’ had said to them during the performance, one responded with, “I thought about it a bit before but then it kind of made me think about it more.” The children were unanimous about the performance part of ‘Lookout’ being their favourite experience of the whole process, and this was largely due to the interaction with the adult participants. They also clearly felt empowered to influence the adult participants. For example, one child said, “I quite liked listening to what the other people had to say and try to kind of get them to side with me.” They loved the creative and imaginative aspect of the experience and another clear theme was the ease with which they imagined futuristic technological solutions for Auckland’s ‘problems’ such as room for housing (cloud houses), rubbish (sky-based sucker-uppers) and public transport (sky trams). They also wanted to have fun, such as a slide coming down off Auckland’s tallest building, the Sky Tower. This focus on the future can be contrasted with the more nostalgic and past-focused tendency among the adult participants we interviewed. For example, one parent said “I said to her (child-performer), most of these buildings weren’t here when I was a little girl and I’m looking around at the modern buildings and I can’t actually see one that I would pick as my favourite because they don’t mean anything to me. Lots of the buildings that I probably knew from childhood, some of them aren’t there anymore.”

The design ideas have therefore focused on the idea of inclusivity (including ages, cultures, abilities), history and play/fun. These are detailed in Table 2 below and Figures 1 and 2 overleaf show perspectives of the ex-State House Community Hub & Garden and the Activity Zone area of the reserve.

Theme	Design intervention
Historic/ Inclusive	At the main entrance an ex-State house will be renovated to provide a nostalgic glimpse of what was once a widespread view in this neighbourhood, and fast disappearing. This will serve as a community hub, with book share library & community fridge for sharing surplus food. A place for community groups & meetings.
Historic/ Inclusive	At the rear of the ex-State house community centre, garden will be set up like the vernacular ‘kiwi backyard’ of old. A concrete path to the washing line and community raised gardens for vegetables and an orchard will encourage different ages, abilities & cultures to interact and grow and share vegetables & fruit important in their culture. A traditional mara kai (Māori food garden) will be included, for growing kūmara (sweet potato). This will also promote wellness.
Historic/ cultural	Concrete pipes from the stream daylighting project will be mounted end on end on the highest point of the reserve and modified to create a giant periscope from which the nearby extinct volcano, Puketapāpa can be viewed (otherwise unable to be seen from the site). This maunga (mountain) is a sacred place to Māori, as an ancient Pā site (fortified village).
Play/fun	Other stacks of recycled concrete pipes will be stacked up and fitted with slides - in tandem, to allow for races. Tandem zigzagging wheel tracks will snake down the hill for racing on scooters, bikes etc.
Inclusive/ Cultural/fun	All the concrete ‘towers’ will be colourfully painted in street art style by local artists to represent the many different cultures in Mt Roskill. This will also be carried out with smaller sections of the pipe along the street in a route to the local primary school to add colour, fun and meaning.
Inclusive/	Seats have been designed, also out of recycled concrete pipes. These will be situated within the reserve for

Cultural/fun	relaxing and socialising. They will also be painted as above.
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Table 2: Design ideas and their connection to the themes from the 'Lookout' Project data.



Figure 1: Community Hub & garden perspective showing ex-State house (rt) & orchard (left) for community connectedness and enjoyment.



Figure 2: Activity & Cultural Zone perspective showing periscope tower (left rear) to view Mt Roskill, racing slides & wheel tracks (right) and daylighted stream with opportunities for exploration and engagement.

5. Conclusion

Using the 'Lookout' project as a method of participation with children and adults yielded some creative and inclusive design ideas with high affordance, when applied to the chosen site of an under-utilised public open space in an Auckland suburb undergoing housing renewal and intensification. Much of the collected data was in the form of general observations, suggestions and ideas, which is unsurprising

since it related to a different site and purpose (that is, 'Lookout' was performed in the CBD and took a broad approach to the city), but this was found to be meaningful in application to the site chosen for this research. The suggested reason for this is that the issues raised during 'Lookout' were city-wide, & the way they were brought out and managed during 'Lookout' was democratic and empowering; using the mask of performance to allow children to express themselves without reserve. The child performers were set up well, through the pre-performance workshop process, to engage equally with the adult participants, who were amazed by the children's confidence and articulation of complex issues of city planning and visioning of a future for that city. As one parent said during the interviews, "When you are in a space where they [children] were taken seriously and where we were paying attention to them ... that really validated a child's worldview." Equally, the child performers gained confidence and knowledge, one child saying, "That, like, you could talk to strangers ... and it's not that bad to." Another child liked, "Meeting new people ... Learning new facts." It was the deliberate intention of Andy Field to set up this uncommon, yet equal, coupling between two people and his performance-based method was effective in enabling children to have an equal conversation with adults about design. In this way it has similarities to Francis and Lorenzo's (2006) 'proactive process', except the focus in 'Lookout' is on giving children the tools to talk to adults rather than renewing adults memories of childhood to share with children. In common, both methods require active listening on both sides, and skilled facilitators.

As a child performer from the 'Lookout' project said, "I think children's ideas should be noticed more because, well, some adults just don't pay much attention to children's ideas because they think they are not as good. Some people when they get older, they lose their imagination in a way. We see things in a different way." Parents interviewed were unanimous in their awe of the way the child performers came across as articulate, informed, challenging and capable. This, and the different perspectives offered by the two age groups - future-focused by the children and more historic, nostalgia-focused by the adults, plus the overt concern from the children towards making Auckland a more fun, cleaner, brighter, greener, fairer, cheaper and more inclusive city, provided a strong design brief for the design at Freeland Reserve. Further research is recommended into developing this method.

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