

The Intrinsic Value of Co-Designing Skateparks

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The Intrinsic Value of Co-Designing Skateparks prepared by Jaicyea Smith

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Abstract

The exclusion of skateboarders from skatepark planning, the rejection of skaters from public space and the lack of inclusive co-design methods leads to poorly designed and neglected skateparks. It is hypothesized that local skateboarders are the experts in creating sustainable skatepark design yet they are usually the last group to be consulted on these developments. Indeed, unlike every major city in Canada, Toronto does not even have a permanent indoor skatepark facility in the downtown core. After months of civil activism which prompted a city-wide Skatepark Study Report, The City of Toronto made a financial commitment in 2016 to address the need for an indoor skatepark. This emancipatory research study was created in response to that and uses co-design methods to explore the value of a DIY skatepark. Researchers engaged local skateboarders in conversations and activities around all aspects of skatepark creation.

The study aims to show that skaters are the best experts to consult regarding the design, development and ongoing maintenance of skateparks. This co-design framework encourages inclusive, sustainable design principles that incorporate creative and artistic skateable obstacles into skatepark design.

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Chapter 1

The Warm-up

1.1 The Warm-up

This Master's Research paper is based on a research study that was created to engage the skateboard community, designers and municipal authorities on how to effectively run a co-design with skateboarders. We used Inclusive Design principles to consult a diverse group of skateboarders on what makes a great skatepark. This research should serve as a tool for those who want to understand about progressive skatepark design possibilities and those who want to discover what the community says they need and how to put it to practice. This initial chapter, titled "The warm-up is intended to give you a scope of the current state of skateparks in Toronto.

I chose to focus this study in my hometown of Toronto, Ontario, Canada due to the notion that as a skater, I feel that we are marginalized in the grand scheme of sports and lacking essential amenities in our skateparks. Our existing outdoor parks do not have accessible washrooms, shaded areas, water fountains and some of the most remote skateparks do not have lighting. There are an estimated 100,000 skateboarders in the city and not a single permanent indoor skatepark in the downtown core. These are major issues and to avoid making the same mistakes as they have in the past, governments and developers have begun to take

heed and consult the local skateboarding community with regards to new skatepark sites. The municipal government of Toronto recently made a commitment to build new skateparks and fix the existing ones.

This study will address the current gaps in skatepark design and discuss the importance of collaboration with the local skateboarding community. This paper will supplement the small body of research that exists around participatory skatepark design. This co-design methodology is meant to ensure the sustainability, longevity and inclusivity of future skateparks. The outcome of this study is a process map of what a community-engaged, user-led, DIY skatepark development process should look like.

The sections of this book unfolded in a manner reminiscent of learning how to learn a skateboarding maneuver. I will explain the research and methodology in each chapter by using the analogies described below:

Observe (Chapter 2)

Before one chooses to skate, they will observe the act of others skateboarding. Applying this analogy to research, it's imperative that those leading the work have observed scholarly peer-reviewed works on the subject. I began by analyzing case studies of other DIY skatepark builds and also conducted interviews with professionals in skatepark design. I chose to observe and critique these studies to identify strengths and weaknesses and inform how I would structure my own co-design and research.

Initiate (Chapter 3)

Now you've had a chance to see what it's all about. It's up to you to make the initiative! Skateboarding is a solo activity which means you are your own coach. To get rolling, you need wheels! To start a co-design, you need to plan your methodology. Once that's complete your job is to reach out to the experts, skateboarders to uncover the secrets you're looking for. How are you going to carry this out? Where are you going to practice your skills? Will you wear a helmet? Knee pads? Is it safer to start on the transitional obstacles and then graduate to street? Just like in a co-design, what plans and connections do you need to make prior to the sessions? What kind of community alliances are

necessary to help carry this out? Who shares your vision? Who has similar goals? How will the sessions look? Who is your audience?

Reflect (Chapter 4)

Through initiation and persistence, you learned a few new tricks! You have had a long day of learning, trying, falling and getting up again. It's time to go home and reflect on the success! Your co-design sessions will be unique to your participants and your results will vary depending on what the community needs are. Once you have collected all of your research findings go ahead and sort through the data to address common themes and threads from each activity and discussion that took place.

Practice (Chapter 5)

You have learned the basics from observing, skating and reflecting. You have a better idea of what could work well concerning the design of your future skatepark. Now it's time to put your theory to practice and put in the hours exercising your new talent. This chapter presents the most important elements of your skatepark design according to the research.

Shred (Chapter 6)

You have mastered your maneuvers and now its time to add your personal flare and style! Backside, frontside, you know the design themes inside and out and you know what your skatepark needs to succeed. This chapter includes a process map for your future skatepark! The process map is a result of applying the inclusive design principles and the design thinking process through the lens of creating an inclusive DIY skatepark. The result should inform the skateboard community in understanding the possibilities, restraints and responsibilities of developing a DIY skatepark while also engaging the neighbouring community members in understanding and finding support of your skatepark community and skatepark.

1.2 Scoping the Scene

Skateboarding has always been seen as an act of “defiance” in the way that it challenges the urban landscape. There has been a lot of focus by cities to eliminate or embrace skateboard culture. What is it about the sport that offers a problematic challenge or inspiring opportunity depending on who you ask? There are no rules.

Planners of skateparks must understand that unlike tennis courts or baseball diamonds, skateparks are not standardized, fixed entities, as the act of skateboarding is not rigidly prescribed. Skateparks have very unique and diverse athletes. Every skater skates in their own personal style and adds individuality to standard maneuvers. The skatepark is a place where they go to practice, socialize, perform, fail freely and try new things. Ideal skateboarding destinations are vast and are not only limited to areas designated for skating. These can include natural forms (hills, steep roads, clear paths, grassy barriers) and beautiful concrete ledges (planters, stairs and public art) throughout towns and cities.

When co-designing interactive obstacles and DIY (Do-it-yourself) skate spaces, these projects gather large numbers of youth. This experience of coming together around a shared cause offers a meaningful opportunity to them. Empowering skateboarders to break social boundaries (negative assumptions about skateboarders) and connect with others who are often considered by others as societal outliers. DIY projects offer hands-on experience with everything from drawing and planning to woodworking, concrete forming and pouring to organizational and foresight strategies.

There are an estimated 100,000 skateboarders and not a single permanent, indoor skatepark in the City of Toronto. Shred Central, the first and last indoor skatepark to settle in the downtown core was built in 1998 by Gympo Jak (Globe and Mail, 2010). The skatepark was monumental and cherished by thousands of people over the 15 years it operated. In the early 2000's Toronto entered a constant flux of demolition and condo development and it seemed like a matter of time before Gympo's rented space would fall victim to the explosive game. Losing Shred meant more than losing a skatepark, we lost a historical hub of culture and diversity for the City.

After months of civil activism which included an open-forum panel discussion with members of the community, media, the regional city councilor the Toronto Skateboarding Committee (TSBC), Toronto Skate Stop (TSS), and other groups helped to facilitate the Toronto-wide Fall 2015 Skatepark Study Report, The City of Toronto made a financial commitment in 2016 to address skatepark issues but notably, the need for an indoor skatepark (Skatepark Strategy, City of Toronto, 2016).

As a skater and an academic, I felt it was important to create a body of research that addresses the current issues about skateparks and to directly consult with skatepark experts on tangible solutions to fix these problems. How can we as designers better understand what defines skateboarding culture and what separates it from mainstream sport?

The key issues that define the existing gaps in skatepark design that this research study aimed to address are:

- Skate culture and community values
- The very apparent lack of permanent indoor skateparks in Toronto
- The exclusion of skaters from public space
- The exclusion of skaters from skatepark planning
- The constant relocation of DIY parks
- The lack of amenities washrooms, lights, shade, indoor space
- Neglected parks; and how to solve
- First-Principles thinking, co-design and Inclusive design in skateparks

Skateboarders comprise a diverse community, many that experience several forms of adversity. They are also an under-served community in Toronto's downtown core. It is important that skate communities work to bridge the gap between at-risk youth and service providers to make parks safer and more inclusive. In January 2014, the City of Toronto released the "Toronto Youth Equity Strategy" (City of Toronto, 2014) in which the third service planning principle describes what a commitment to positive youth development looks

like, "Youth are meaningfully engaged in designing programs and decision making to positively influence themselves and their community" (City of Toronto, 2014).

Skateboarders in Toronto, Canada are supported by a few grassroots movements that advocate for more representation and resources. Toronto Skate Stop is a local skatepark advocacy group with a focus on creating opportunities for skateboarders to flourish, strives for a space where youth can feel responsible for themselves and their communities. Since 2015, this organization has been advocating for and building skateparks in Toronto. These skateboarders have made revolutionary steps towards bridging the gap between local skate groups and governmental organizations (Skatepark Strategy, City of Toronto, 2016). Collaborating with local groups such as Oasis Skateboard Factory and the Toronto Skateboarding Committee has allowed them to create tangible change in their local skateparks on a large scale, ultimately working towards more safe, sustainable skatepark developments. A recent outcome of these types of collaborative efforts would be the lights program at Ashbridge's Bay skatepark. Located in East York, Ashbridge's Bay Skatepark is Canada's largest outdoor skatepark (LAND INC, 2019). Toronto Skateboarding Committee led a 2015 city-wide skatepark survey with the help of grassroots groups like Toronto Skate Stop. Due to the large sample size and the 16% improvement vote, The City of Toronto identified the need for lights at AshBridge's Bay Skatepark which will be installed in the park this year, 2019 (Toronto Skateboarding, 2016)

1.2.1 Understanding Skateparks, Skatepark Design and Typology - What is a Skatepark?

A skatepark is defined as an area designated and equipped for skateboarding. The primary users of skateparks are skateboarders, also known as skaters Skateparks are multi-dimensional. They are a training ground, a theatrical stage and even double up as youth hang-out spaces (Taylor, 2011). They attract people who are drawn to its unique and natural architectural qualities. Skateparks can also be seen as a creative hubs, theatrical stages and even 'double up as youth hang out spaces' (Taylor, 2011).

Skateboarding originally started in the streets and backyard pools, so desirable skatepark terrain is characterized by maneuvers that have evolved around specific forms. These include; sidewalks, stairs, handrails, planters, benches, curbs, ledges, empty pools, drainage ditches and pipes. These "skateparks" came

out of necessity because there was nowhere to skate. The sport has always utilized “non-traditional” places because there were never “traditional” places other than the streets.

One of the affordances of a well-built park is the ability to practice the things you would do in the street in a sanctioned space. Skateparks that understand this ideology can help to improve and open up the network of skateboarding experiences. There are two typologies important to the design of skateparks and they are size and terrain. When the two are combined it creates a notion of skatepark style. According to the Tony Hawk Foundation (Tony Hawk Foundation, 2016) there are three main size classifications;

Skate Spots are generally 1,000 — 3,000 square feet and consist of up to three unique and artistic skateable structures. With a capacity of less than 20, there are usually no dedicated site amenities. Skate spots are designed by skatepark specialists or experienced skateboarders or may be built by members of the community and a general contractor.

Neighbourhood Parks are usually no smaller than 10,000 square feet and feature a specific or dominant terrain style. There are some site amenities; water, shade, seating and access is managed by elements influenced by environmental design, (e.g., paths, shrubbery). These parks are usually designed and built by skatepark specialists and can accommodate up to 60 skaters at any given time.

Regional Skateparks that spans 20,000 square feet with a full offering of terrain styles and scales. Site amenities for periodic events, onsite water, shade, parking, lights, and seating, some access control, (e.g., low fence) and a capacity of 120 skateboarders. “Modern street furniture and landscaped public plazas become sources of thrill-induced pleasure as well as sites for political and spatial contestation” (Vivoni, 2009).

There are three main styles of skateparks that users will engage with based on individual desire:

Bowl/Transitional Parks, otherwise known as transition parks are made up of transition terrain, or “tranny,” features. A drought during the late 1970s in southern California is what caused this unforeseen

increase in skateboarding popularity amongst the surfing community. Concrete, curvilinear forms that resemble empty swimming pools and giant drainage pipes are inspired by skateboarding's roots in surfing and are designed to emulate the feeling of riding a wave. *See Figure 1*

Street Terrain, also known as "street plaza," upholds the geometric, institutional style architecture usually found in cities. Most modern skateboarders prefer plazas because they reflect the kind of terrain they are accustomed to skating (Tony Hawk Foundation, 2019). A lot of skateboarders are commuters and some prefer street-style parks because they mimic the experience of skating in the streets. *See Figure 2*

Hybrid- style Parks. These are skateparks that don't offer solely street terrain but instead offer a mix of street and transitional obstacles. *See Figure 3*



Figure 1: Street style skatepark in New York, USA.



Figure 2: Transition style skatepark in Stockholm, Sweden.



Figure 3: Hybrid-Style Park, Nelson BC

1.3 What do Skateparks Represent to their Internal and External Constituents?

Skateboarding is a complex culture, based on the creative re-appropriation of urban forms (Borden, 2001). Skatepark users (skaters, BMX riders, rollerbladers, and park visitors), community groups, neighbors, surrounding business owners, urban planners and government officials are amongst the internal and external constituents involved in affecting change in public skatepark areas. Skateparks are a classroom for learning and growth and can teach people soft and hard life skills such as negotiation, conflict resolution, confidence building and requires you to be driven and resilient. Skateboarders are aware of how unique and challenging skateboarding is and thus a silent fellowship exists amongst them. One of the skateboarders involved in our study reported feeling like their local skatepark was their home and the skateboarders in it were like family to them. The 2015 Toronto skatepark study revealed that skateboarders spend an average of 3+ hours a day when visiting their local skateparks.

At their very core, they are parks. Parks are defined as “A large public garden or area of land used for recreation”. Parks are generally peaceful places but often times there can be competing values in society that are expressed through symbolic struggles of public space (Németh, 2006). For example, the natural damages and scuffs to street furniture are sacred to skateboarders but onlookers perceive it as an eminent issue. It has spawned an entire industry in the manufacture of “anti-skate design” which are architectural deterrents to skateboarding (Borden, 2001) *see Figure 4.*



Figure 4: Skate Stoppers

When it comes to municipalities, they see the value of building a skatepark but the quality of design and lack of consultation with its users causes skateparks to fail. Skateparks are sometimes negatively characterized as frivolous public expenditures. However, they are low-maintenance facilities that are wildly popular with young residents. By any measure, *professionally* designed and built skateparks produce a terrific long-term value for the cost of creation (Whitley, 2012). That value can be seen in DIY skateparks all over the

world- notably, skateparks built by The Tony Hawk Foundation in collaboration with their Grant Recipients. Co-design is at the root of their work and the foundations primary role is allocating funds and providing professional, technical skatepark development support. The charity currently only works with groups in the US, and there is no similar group that exists in the world. With skateboarding entering the 2020 Olympics, more interest in funding skate facilities is inevitable over the next few years.

There are existing articles that speak to the benefits of skateboarding for youth. In the article, Skateparks as a health-resource: Are they as dangerous as they look? The researcher's analysis consists of 388 days of observation of 11 skateparks in Montreal, Canada. Its findings indicate that skateparks should be conceived as a valuable health-resource for youth because they provide various social, psychological and physical resources that encourage a safe and active lifestyle.

1.3.1 Authorized vs Unauthorized Skatepark Use

Skateboarders are notoriously known for D.I.Y (do-it-yourself) projects and 'builds' in communities across the globe (Galewicz, 2018). Passionate groups raise funds and create innovative and beautiful skateable architecture known to last for decades. A handful of skateparks are authorized and some, possibly about half of them are not. Authorized skateparks are usually on government or privately owned property or built as a recreational component of a larger institution such as a community centre, university, and most recently in Canada, a shopping mall, (Chan, 2016). Unauthorized skateparks are equally as popular and attract skateboarders where a specific need is not being met. These parks are often located in backyards, abandoned lots, pools and underground roadways and ravines. These unsanctioned spaces are important to skaters because they offer ideal forms and terrain for skateboarding (smooth concrete, curves and smooth ledges, areas for viewing etc.), they are adaptable and not far from the city core.

1.3.2 Toronto's Sanctioned DIY Collaborations

In Toronto, some urban planning efforts have been made to change the attitude towards skateboarders in communities. The non-profit, memorial group, Build for Bokma, and an OCAD associate collaborated with the Bentway to create *Semblance* (see Figure 5), an art installation and pop-up skate park built in commemoration of Toronto skater Justin Bokma. The Bentway was built by the Bentway Conservancy. “The project was made possible through the collaboration of a range of city-builders and experts, including the City of Toronto, Waterfront Toronto, Judy and Wilmot Matthews, Ken Greenberg Consultants, PUBLIC WORK, Fort York National Historic Site, and Artscape. The Bentway is a proud member of the High Line Network, an international network of projects that transform industrial infrastructure into new urban landscapes” (Bentway, 2019). The development was built on a 1.75km path underneath Toronto’s Gardiner Expressway. *Semblance*, the temporary DIY skatepark “speaks to the simultaneous accessibility and inaccessibility of urban spaces to the reclamation of the city by marginalized groups and countercultures, and to the potential for functional and inclusive city-building through creative collaboration. The sculptures utilize forms and materials that reference iconic skateboarding destinations within Toronto, New York, Barcelona, and other major urban centres. Together the sculptures create a “moveable destination”, a temporary gathering place for local and international skate communities alike.” (Men, 2019)



Figure 5: “*Semblance*” Build for Bokma 2/6 DIY Obstacles placed at the Bentway

1.4 Skateboarding Laws & Regulations

“As a review of parks management literature reveals, cities assume no liability for injuries and expect skateboarders to secure private funding; urban managers also expect skateboarders to display character traits of personal responsibility and entrepreneurialism. This is in contrast to Progressive Era playgrounds, where cities completely financed playgrounds and took responsibility for personal safety; urban managers also sought to inculcate values of loyalty, which they viewed as necessary in an increasingly bureaucratized society. The comparison highlights how the skatepark can be viewed as an instance in which neoliberal governance practices have reconfigured the citizen–state relationship from one of entitlement to one of contractualism.” (Howell, 2008)

1.4.1 Is Skateboarding Legal in Toronto?

Is there anywhere in the City of Toronto where a skateboarder can ride legally other than a designated skatepark or his own driveway? According to Chapter 400* of the City of Toronto Municipal Code: *“No person shall play or take part in any game or sport upon a roadway, and, where there are sidewalks, no person upon roller skates or a skateboard, or riding in or by means of any coaster, toy vehicle or similar device, shall go upon a roadway except for the purposes of crossing the road...”* (This is the same bylaw that makes street hockey illegal.) Similarly, Chapter 886 of the Municipal Code states that, *“No person shall park, drive or operate any vehicle, except a bicycle, on a bicycle path.”* And while Chapter 400 makes it seem like skaters could ride on the sidewalks, that’s not really the case either, according to Chapter 313: *“Pedestrians shall have the right-of-way on a sidewalk, and no person shall ride upon or operate a bicycle...roller skates, in-line skates, skateboard, coaster, toy vehicle or similar device on a sidewalk without due care and attention and without reasonable consideration for others using the sidewalk.”* Yonge-Dundas Square would seem perfect for skateboarding! Chapter 636, which says that *“No person shall, within the limits of a square...ride or stand on any skateboard, roller skate or roller blade.”* In summary, you can’t skateboard on the road, on a bike lane, on a sidewalk (usually), or at any city square in Toronto, Canada.

Constable Hugh Smith of Traffic Services Communications at Toronto Police Services says, “It’s a vehicle, but not in the same way a car or bike is, and it’s also a toy, but not in the same way as a Cozy Coupe. It’s a vehicle under one definition because it’s got wheels,” (Wilson, 2012)

1.4.2 Policing Neighborhoods

In some places around the world, skateboarding is seen as a public nuisance activity that needs to be contained within specifically designed areas such as skateparks (Daskalov, 2015). In an Australian study, they found that “youth believe adult opponents of skateparks actively petition for the installation of local government by-law restrictions that legally prohibit skateboarding from occurring in places other than those specifically designated for that purpose” (Taylor, 2011). Council originally built the skate facility to minimize public skateboarding, but they saw no change. And it has been proven that provision of skateparks does not solve any issues with street skating (Taylor, 2011). Civil libertarians observe these negative actions as constituting an “assault on youth given they engender teenophobic skateboarding moral panics among certain sections of the adult populace. In turn, these moral panics serve only to further increase marginalized youths’ sense of social isolation from the mainstream population” (MacDonald & Marsh, 2002).

Crime Prevention Through Environmental Design (CPTED) is a crime prevention approach based on a theory that the built environment influences the behaviour of people (Toronto Police, 2019). They believe that the “proper design and effective use of the built environment can lead to a reduction in the incidence and fear of crime, thereby improving the quality of life” (Toronto Police, 2019). CPTED involves the design of the physical space relative to; the needs of the users, the normal use of the space and the predictable behavior of the users of the space. Some of the CPTED guidelines suggest implementing more “natural surveillance” to deter crime, “Territorial enforcements” and “redesigning the use of space to provide natural barriers to conflicting activities” (Toronto Police, 2019). These guidelines can directly influence the rejection of skateboarders in public space, for instance, the attitude towards pathways being used as shortcuts or the philosophy around “the design of space being relative to the normal use of the space” (Toronto Police, 2019). CPTED is a crime prevention approach based on a theory that the built environment influences the behavior of people. These concepts are built into the urban design of our city and it is worth considering how

compatible use of space can be further explored. For example, Alexandra Park in Toronto is a park made up of a predominately senior demographic. The park has a large grassy area with trees and park benches, a primary school, swimming pool, skatepark, and community center. Pathways were designed in a way that encourages free movement throughout the park space. Skateboarders have their own skateable entrance (a short cut south of Dundas Street, pathways near the parking lot on Bathurst) and these entrances are “guarded” by community gardens. This separate path minimizes conflict with the larger community of young children and elderly folks. These design considerations, whether intentional or by coincidence deserve a closer look and deeper analysis into how this creative harmony with skateboarders and the general population

1.4.3 Government attitudes shifting

The City Parks, Forestry, and Recreation Department of Toronto recently developed and released a Facilities Master Plan. The new Facilities Master Plan will be a comprehensive exercise that considers demographic data, utilization information, trends, legislative changes and community, staff and stakeholder inputs to inform recommendations (City of Toronto, 2017). The Parks and Recreation Facilities Master Plan 2019 – 2038 was adopted by City Council on November 9, 2017. The need for a master plan is also driven by changes in the needs, expectations and service delivery models for both parks and recreation. The facilities in scope for this plan include skateparks.

Toronto has fourteen outdoor skateparks (plus modular equipment in two *temporary* indoor gymnasiums). These venues are now commonly provided by municipalities, with the market expanding beyond teens to include younger children and adults. In 2016, the City approved a Skateboard Strategy that provides direction on skatepark planning and design, operations, community animation and promotion. The Strategy identified demand for new and improved parks and noted that there are large gaps in skatepark provision across the city. On this basis, it was recommended that the City’s level of service be enhanced. Provision targets of one community skatepark per 100,000 residents and one skate spot/dot per 25,000 residents are recommended to be applied to new growth. This translates into a need for four community-level skateparks – one per district – and eighteen skate spots within local-level parks and trails over the next twenty years (City of Toronto, 2016).

“Additional skate dots – small-scale skateable features – should be explored where feasible as part of ongoing park development. Opportunities to convert surplus park amenities into skateparks should be considered in consultation with the Toronto Skateboarding Committee, with a preference for permanent features. Existing skateparks and support amenities should be kept in a state of good repair and upgraded where supported by usage/user input.” (City of Toronto, 2016)

To conclude, the City of Toronto made a series of promises to utilize the planning framework presented in the Skateboard Strategy to guide capital planning, design and construction of skateparks. Gaps in skatepark distribution will be addressed through a range of skatepark types and sizes, including skate spots within local-level parks and trails. The condition of existing skateparks and quality of supporting amenities will be prioritized through park upgrades. Lastly, they will evaluate opportunities to support year-round indoor skateboarding through repurposed facilities (City of Toronto, 2016).

1.5 Theoretical Perspective

This research study takes an emancipatory perspective to the development of a DIY skateboard park in the City of Toronto. The purpose of the study was to engage local skateboarders in conversations and activities around all aspects of the creation of an indoor skatepark. The study is meant to be an example of how co-designing a skatepark influences overall user satisfaction, longevity, safety and enjoyment of the space thus proposing a pathway to sustainable advancement in the creation of a future DIY indoor skatepark.

1.6 Problem Statement

How can local skateboarders who are experts in the creation of functional, creative and sustainable skatepark design, be fully immersed in the development of such facilities?



Chapter 2

Observe

2.1 Observe

Before one chooses to skate, they will observe the act of skateboarding. Applying this analogy to research, it's imperative that those leading the work have observed scholarly and peer-reviewed research on the subject. Watching intermediate and advanced level skaters can help you improve and learn where and how to apply certain techniques. People learn through trial and error but we can always reference the mistakes of the past to make our journey slightly more progressive; in this case, the study of skateparks. Case studies in this chapter are used to present the key issues in skateparks, the lessons we can learn from them and the evaluation of the overall approach. Liability and risk management recommendations are also considered here.

2.2 Managing Risk

2.2.1 Skatepark Landowner Liability

The issue of landowner liability for injuries stemming from skateboarding is an important concern. Often, skateboarders who are injured on public or private property may hold a landowner liable for his or her damages or injuries from skateboarding. Under a "premises liability" theory, for example, a public or private landowner may be held liability for injuries that occur on his or her property, especially if the injuries were "foreseeable". This includes cases where a minor (or under-age person) was invited onto private property.

While some governments have enacted specific laws arising out of "hazardous recreational activities", others have included skateboarding within more general immunity laws or laws that aim to shield

landowners from liability lawsuits arising from individuals engaging in a particular activity, such as skateboarding.

The discourse surrounding liability at skateparks also illustrates the personal qualities that urban managers endorse. Changes in liability law mean that most facilities must be “Skate at your own risk,” because, ironically, supervision increases liability for municipalities (Gilligan, 2004; Spohn, 2001; Thompson, 1998).

Skateboarders are often praised for exhibiting the self-supervision and personal responsibility required to make this arrangement viable. In considering legislative reforms aimed at limiting governmental liability for skateboard injuries, the California Assembly Committee on the Judiciary (1997) quoted a young skater as saying that “it’s already unwritten code among skateboarders, ‘We know we could be hurt and are willing to take that risk’” (Howell, 2008). Writing in a Portland daily newspaper, one journalist (Green, 2000) marveled that, “they’ve broken their bones, chipped their teeth, sprained their ankles, gouged their heads bloody and knocked themselves out cold. But—to the surprise of some Oregon and Southwest Washington cities, counties and recreation districts—one thing almost all injured skateboarders haven’t done is sue.” (Howell, 2008) Landscape Architecture Magazine reported that as of writing in 1998, there had never been a successful skateboard liability case (Howell, 2008).

If cities are reluctant to build skateparks because they view skateboarding as a dangerous activity and dread the prospect of injury claims, the evidence is that both of these notions are largely unfounded. According to the Consumer Products Safety Commission, skateboarding has a smaller percentage of reported injuries per participant than soccer, baseball, and basketball. . . . Granted, many skateboarding accidents are simply not reported—but this speaks well of skateboarders, who apparently feel that safety is the irresponsibility, as are injuries when they happen. (Thompson, 1998, p. 81)

2.2.2 Skatepark Injury Prevention

In the field of public health, a review of over 20 studies of skateboarding injuries has shown that they count for approximately 2% of all sport-related injuries requiring medical attention, an incidence high enough to raise public health concerns (Forsman & Eriksson, 2001; Fountain & Meyers, 1996; Laforest & Dumas, 2003).

One further proposal has been the construction of safe skateparks, this being based on the hypothesis that they reduce the number of injuries by providing participants with greater control over their physical environment (Everett, 2002). To our knowledge, no study has focused on environmental and socio-cultural factors tied to skateboarding injuries.

On-site observations revealed that 31 injuries occurred over the course of 35 days. A large majority of these were minor (bruises, scratches, cuts) ($n = 23$), with only 2 fractures and 2 serious sprains so that, of a total of 422 different skaters registered in the 11 parks, less than 1% sustained an injury needing medical attention during the data collection.

“It is because the body is ... exposed and endangered in the world, faced with the risk of emotion, lesion, suffering, sometimes death, and therefore obliged to take the world seriously (and nothing is more serious than emotion, which touches the depths of our organic being) that it is able to acquire dispositions ... “(Dumas, 2008)

By being exposed to skateboarding injuries, and by frequently being reminded of their consequences through minor injuries (scrapes and scratches), skaters gained novel insight on prevention:

“Each time you fall you learn a lesson, even if it’s not hard. When you fall the first time trying, you’re going to wait before trying the same trick again ... Sometimes you’ll try a trick six times in a row without having any problems, and then you fall on the seventh try and get hurt. When this happens, you don’t learn the same type of lesson [than if you had fallen on the first try]. You ask yourself, ‘what happened? What did I do?’. All types of injuries make you think”. (Snag, 24, 8).

As these examples reveal, by self-evaluating their physical limits and by learning new skills, skaters reduced their risks of injury, developing an *ethos of prevention through practice* (Alex Dumas & Sophie Laforest 2009). By coupling data on injury rates with the perspective of skaters on their sport, we strongly believe that skateparks can be favourable spaces for attracting youth to safe and active lifestyles (Alex Dumas & Sophie Laforest 2009).

2.2.3 Assessing and Reducing Risk

It is the responsibility of the designers to mitigate the risk of building dangerous obstacles and the responsibility of the engineer to assess the structure and sign it off as safe. Liability falls on the skatepark entity if obstacles are neglected or made unsafe. Certain structures attract skaters more than others, it is up to the individual skateboarder to acknowledge which may involve more risks based on (skill level, knowledge of technique, understanding its function) and make the right choice.

Interviewees pointed out that the sharp edges, slippery slides and weak structures are potentially dangerous. Another challenge is sensitizing young skaters to health and injury prevention because of the unapparent concerns for health issues in the culture of skateboarding. Since sports are powerful symbols in society more research is needed on the types of discourses that will bring skaters to adopt more injury prevention measures, especially outside skateparks. (Alex Dumas & Sophie Laforest, 2009)

All skateparks in this study are public property and require minimal standards of safety, whereas private or self-made skateparks might represent higher risks. Second, the qualitative data in this paper focused on strong trends in the interviews, which might have overshadowed minority conversation. For instance, security issues that could affect young women or minority ethnic groups did not appear in the interviews. The female skaters were largely underrepresented in the skateparks of this study (98% of the 422 skaters observed in skateparks were males). This observation tends to confirm previous research that show that female skaters can feel excluded from these environments (Alex Dumas & Sophie Laforest 2009).

Skatepark design companies such as Spectrum skateparks in B.C. Canada engage in a site specific analysis. This affords them to assess how the skatepark will integrate with site conditions and also conduct a

risk assessment and reduction audit. All of their work is audited by a 3rd party Risk Management firm. Below are a few of the precautions they take with each new build. (Spectrum, 2019)

- ACI Certified Shotcrete Nozzleman
- CRMCA Certified Concrete Pump Operator
- Certified Safety Officer
- WHMIS Certification
- Level 1 First Aid / CPR
- Fire Extinguisher Training
- Fall Arrest
- Propane Training
- Journeyman Carpenter
- Authorized Applicator of *Top Secret Curing Agent*

2.2.4 The Causes of Skatepark Injuries

To address the safety of skatepark users, a risk management plan needs to be implemented. Table 1 and Table 2 below illustrate consideration for key risk management issues related to skateparks, although this is not meant to provide any form of legal opinion or official interpretation. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation. (Cowan, 2002)

Table 1 The Causes of Skatepark Injuries

(Cowan, 2002)

<p>Injuries to participants typically result from:</p>	<ul style="list-style-type: none"> · Lack of equipment maintenance. · Conflicting users. · Inadequate design of the equipment. · Users not wearing safety gear. · Equipment not being suitable for skill level. · Lack of supervision/mediation.
<p>The type and severity of the injury are influenced by:</p>	<ul style="list-style-type: none"> · The experience of the skateboarder. · The surface on which they are skateboarding. · The type and quality of the skateboard. · The type and condition of the equipment in the park. · The quality and use of protective equipment.
<p>Injuries to the public can result from:</p>	<ul style="list-style-type: none"> · Poorly maintained equipment. · Height of equipment with no guardrails. · Uncontrolled access – no fencing or not locked. · Vandalism damage. · Debris around the site – broken glass, nails, construction material.
<p>Statistics</p>	<ul style="list-style-type: none"> · The average age of an injured skateboarder is 16 years old (2003). · Lower leg and forearm breaks are the most common injuries · Exposures to negligence in skateboard parks result from three main areas: design, supervision and maintenance. Address these key issues and the risk of liability can be greatly decreased.

Table 2 Skatepark Design; Legal Considerations

(Cowan, 2002)

<p>Location of Park</p>	<ul style="list-style-type: none"> · The location of the park should be in open view and not hidden. · It needs to be easily accessible by users (along routes of public transportation) and by maintenance staff for easy repairs. · There must not be any danger for users in entering the park. · There should also be separated areas for incompatible uses, such as skateboards, BMX bikes and inline skates. · Consider fencing in the park to prevent vehicles, animals, small children, etc. from gaining access. Also, a fence can be locked at the end of operating hours and prevent skateboarders from using the park at night.
<p>Skill Level</p>	<ul style="list-style-type: none"> · The difficulty level of the park must be well thought out. · If the park is too difficult, there is a risk of injury for beginners. · If the park is too easy, more experienced users will get bored and go elsewhere. · There needs to be a variety of equipment with different difficulty levels. · The difficulty of the ramps needs to be clearly defined through signs or a coding system (consider using “ski hill” markings).
<p>Park Layout</p>	<ul style="list-style-type: none"> · The park layout must be designed to allow safe movement throughout the facility. · Traffic flow is important, as is avoiding setups that invite zigzagging and other erratic and possibly dangerous movements. · In most circumstances, we recommend that municipalities purchase equipment from an established and reputable manufacturer. In doing so, you transfer your exposure relating to improper equipment design, poor workmanship, etc. · Provide safe areas for participants to rest and spectators to watch. · Consult the skateboarding community when designing the park. Create open lines of communication between the user group and the municipality to help enforce park rules and deter any vandalism.
<p>Risk Management</p>	<ul style="list-style-type: none"> · Work with professional park designers and enter into a formalized contract with the designer. The contract should include a Hold Harmless/Indemnification Clause as well as a requirement for a Commercial General Liability Policy and Errors & Omissions Insurance. This allows for a contractual transfer of the risks involved in design. If a third party is building the park, enter into a formalized agreement that includes a Hold Harmless and Indemnification Clause and a requirement for Commercial General Liability and Environmental coverage.

Table 2 Skatepark Design; Legal Considerations

(Cowan, 2002)

<p>Supervision</p>	<p>Supervised</p> <ul style="list-style-type: none"> · If the park is supervised, safety requirements can be enforced and daily inspections can be completed. In addition, participants could be required to sign a waiver and classes or seminars could be offered to beginners. · Supervisors should have a good knowledge of and experience in skateboarding in order to judge the skill levels of the users. · Supervisors should be aware of all safety rules and operational procedures. · Staff training and orientation should be documented and kept on file. · Supervisor should be trained in first aid and CPR, have access to a complete first aid kit, have access to a phone and be trained in the completion and filing of accident reports. <hr/> <p>Unsupervised</p> <ul style="list-style-type: none"> · If the park is unsupervised, the equipment provided should be less difficult and easier to maintain
<p>Signage</p>	<ul style="list-style-type: none"> · Appropriate signage serves two purposes: prevention of accidents through warning signs and avoiding liability through disclaimer signs. · Signs should be posted throughout the facility in highly visible locations. · Signs should be written in simple language for the participants to understand. Use pictures to send a message – i.e.) no biking. · When creating signs for a skateboard park, keep in mind the reading level of the users. Signs should be written in the most basic way so that all users can understand them. · Include skateboarding lingo in your signs. An example of this would be to use the phrase “Wear the Gear” rather than “Use of protective equipment is mandatory”. · Stay away from verbiage such as “must” and “mandatory” as these words require the enforcement of the rules. · Signs must be maintained and should give information such as: <ul style="list-style-type: none"> · Hours of operation – if there aren’t lights that allow for night use, clearly state when the park opens and closes. · Warnings of any danger, including use of the facility when it is wet or icy. · Recommended use of protective equipment. · Location of a telephone “The nearest phone is located _____. 911 is a free call.” · The degree of supervision (supervised vs. unsupervised, hours of supervision). Adult supervision is recommended for children under the age of 10. Post a sign warning “Do not use equipment that is damaged. Call _____ to report damage” · Consider a sign that says the following “This facility is not supervised. Parental supervision is recommended. This is a high risk activity that can result in injury. Provide a number that people can call to report problems with the park such as maintenance issues.

Table 2 Skatepark Design; Legal Considerations

(Cowan, 2002)

Inspection and Maintenance	<p>· The single most important aspect in the operation of a recreational facility is the maintenance of that facility. Maintenance should be considered at the design stage, with equipment being designed to require minimal maintenance and using new materials. Safety inspections should be completed on a daily basis. Consider the following steps when developing a maintenance program:</p> <ol style="list-style-type: none">1. Visually inspect park areas daily.2. Ensure you document all inspections.3. Remove broken glass, garbage, and other debris.4. Make minor repairs immediately.5. Equipment with more serious damage should be removed immediately.6. Document all inspections, repairs, and maintenance of the park and record it
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2.3 Case Studies

This next section presents a series of case studies that examine skatepark activism, elements of success and challenges in skatepark development around the world.

“Differences are constructed in, and themselves construct, city life and spaces. They are also constituted spatially, socially and economically, sometimes leading to polarization, inequality, zones of exclusion and fragmentation” (Bridge , 2000).

2.3.1 Western Australia Skatepark Case Study

INTRODUCTION

In a study carried out by the Lifespan Resilience Research Group, School of Psychology and Social Science in Western Australia, Australia, skateboarder interview data and skate-park audit data were triangulated in a mixed-method research design (Khan & Taylor, 2011). The study revealed that “skateboarders believe adults view them as being anti-social deviant youth and their leisure pursuit of skateboarding as an undesirable pastime that requires regulation.” (Khan & Taylor, 2011). Skateboarders also expressed that as urban skate-parks double up as youth hang-out spaces, vocal adult opponents of skate-park builds often petition for them to be situated in places that do not offend public sensibilities. (Khan & Taylor, 2011). In terms of park amenities, participants held the view that “the general public’s low perception of skateboarding youth was reflected in the poor provisioning of skateparks when compared to the provisioning of facilities for other more socially acceptable youth sport (e.g. football grounds, tennis courts)” (Khan & Taylor, 2011).

ANALYSIS

The study revealed that inconsistencies occur in the construction and provisioning of skate-parks and working to “design-out” skateboarders. It is recommended that planning authorities take care to ensure that these inconsistencies do not become a function of socio-economic area status. In the same light, skatepark users and builders should make more inclusive design considerations for the general public including more garbage cans, innovative ways to incorporate graffiti and encourage music and other artistic expressions, skate lessons and peer-to-peer mentoring.

The authors propose a list of general recommendations for skatepark development. A key item is, at the time new skate-parks are being contemplated local government could “enhance community harmony by initiating information sessions that have as their aim the presentation of the perspectives of the proposed park’s youthful end users (i.e. skateboarders, bikers, scooter riders, inline skaters) and the perspectives of adult property/business owners located within the immediate surrounds of the proposed park” (Khan & Taylor, 2011). Community-based initiatives of this nature have the potential power to breakdown negative

stereotyping both by adults towards youth and youth towards adults. This “harmony” is impossible without co-design and collaboration.

KEY FINDINGS/LESSONS

Similar to Australia’s skate community, Toronto’s skate scene consists of multicultural youth of all ages, from a wide range of ethnicities, education levels and socio-economic status. Communities must try to involve as many people in the decision making process to make sure everyone is heard and all views considered. No one can be left out of the picture. It is imperative that skateparks are inclusive and do not work to *push* youth and marginalized individuals out but also that they are given an opportunity to collaborate with city-planners and government officials.

2.3.2 Case Study: LOVE Park

INTRODUCTION

This case study examines a DIY skatepark created in the downtown core of the City of Philadelphia (population of 1.6 million). John F. Kennedy Plaza, “Love Park” was a piece of Philadelphia’s mid-1960s Penn Center redevelopments. By the turn of the century, Love Park had become a center of a growing international skateboard culture, showcased in magazines and on ESPN. Skateboarders had discovered that Love Park—with its open plan, stairs, handrails, marble benches, and granite planters—was a “skateboard heaven.” By the late 1990s, the skateboarders were widely praised by city elites like planners, local architecture critics, major newspapers, and over half the city council members.

In the public eye, the skateboarders were tempering the activities of the homeless population, injecting skateboard industry capital into the plaza, and generating a hip image for the city. In 1991, the local paper published an article titled “*Who Eats at JFK Plaza? Brown-Baggers, Homeless—and Rats.*” (*Inquirer*, 1991) The paper reported on the increasing presence of what they called “the skate rats.” (Nemeth, 2006)

In 2002, Edmund Bacon and over half the city council members redesigned the park in order to deter the skateboarders. “Through a review of city planning documents, local newspaper reports, and personal interviews, the Love Park debates illustrate the extent to which skateboarding must be institutionalized as instruments of urban development.” (Nemeth, 2006) Jeremy Nemeth wrote a beautifully documented case study of the infamous LOVE Park titled, *Conflict, Exclusion, Relocation: Skateboarding and Public Space*. In it, he addresses implications for how skateboarders’ use of public space is treated in cities.

The case study addresses the physical tactics used by the City [of Philadelphia] to remove the skateboarders from the space [LOVE Park]. The local government justified these choices to the public by using negative and offensive discourse in an effort to portray the skaters as unruly and disorderly (Howell, 2008). It was proposed that the skateboarders’ ‘polluting presence’ in LOVE Park did not support the City’s desired image for their redevelopment efforts (Nemeth, 2006). Famous skate brand DC shoes offered the city of Philadelphia \$1 Million dollars to save the landmark by contributing \$100,000/year over ten years to repair any damage and subsidize a monitor to ensure skateboarding would only take place during approved times, they declined. Skateboarders were only supported when they produced ‘substantial exchange value for the City, gentrification in the form of the X-Games’ (Németh 200



Figure 6: Love Park (LeBlanc, 2013)



Figure 6a: Love Park (Flickr, 2010)

By 2003, skateboarding had become an issue in the mayoral election. As part of his ultimately unsuccessful campaign, Republican candidate Sam Katz skateboarded across Love Park, declaring that if he were elected, the skateboarders would be returned.

In response to the Street administration's policies, the skateboarders created a non-profit lobbying group, called the Skateboard Advocacy Network (SAN), led by a skater named Scott Kip who worked in the woodshop at a local arts college. He reached out to local activists, editors, lawyers, architects, and planners who were sympathetic and SAN began negotiating with the city for a "balanced solution" proposal. If some of the obstructing planters were removed, the skateboarders would agree to use only certain areas of the park, only after 3 p.m., to avoid conflict with the lunch crowd.

In 2000, the council passed a citywide ban on skateboarding that specifically called out Love Park (*City of Philadelphia, Bill No. 000147, Title 10, Section 10-610.*) The ban was enforced with sweeps and often-violent police tactics, which are well documented in skateboard videos. Despite this unfortunate truth, public support for the skateboarders was mounting. There were protests, rallies and other public actions that took place. On August 11, 2001, Inga Saffron, the *Inquirer* architecture critic wrote an opinion piece titled, "Don't trash thrashers" (Németh, 2006).

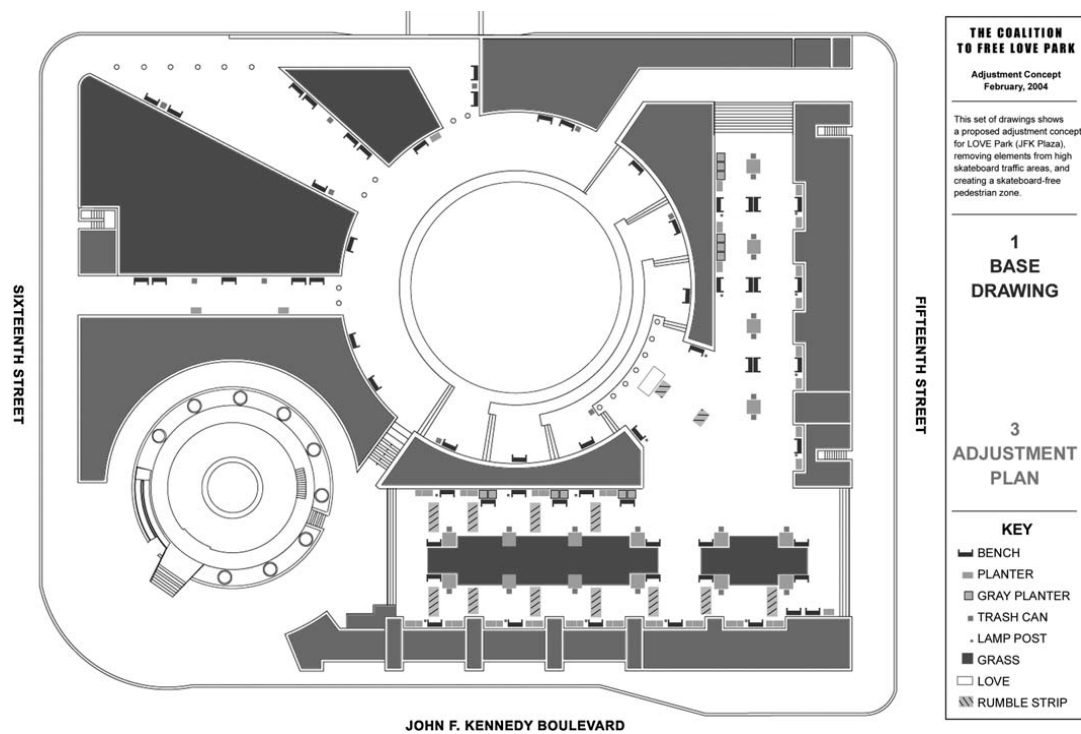


Figure 7: SAN Adjustment Plan. One of several “Adjustment Plans” offered by the Coalition to Free Love Park, This organization was formed by the Skateboard Advocacy Network, along with the preservation group, the Independence Hall Association, and the advocacy group, Young Involved Philadelphia. The Coalition proposed to remove obstructions to skateboarding (planters, trash cans, and benches) from some areas of the plaza, while adding in rumble strips to the pathway parallel to John F. Kennedy Boulevard, in order to ensure a pedestrian-only zone in that part of the park. (Nemeth, 2003)

Today, LOVE Park has undergone a complete makeover but due to its history, remains a historical location for die-hard skateboarders around the world.

ANALYSIS

“The exclusion of certain individuals and groups from public spaces then becomes a question of citizenship, which consists of “the right to be considered in the range of forums, alliances and nodes which constitute governance” (Rogers, 1998). “The denial of access to, or inclusion in, public space then becomes a denial of citizenship and representation in the public forum.” (Nemeth, 2011) There were a plethora of alternative strategies and remedies that could have been used. Working with the skaters to determine “permissible skate times” and funding repairs through sponsorship could help to compromise and promote a

sense of shared responsibility over the park. The city won and skateboarders were left with nothing. No nearby skatepark in its place, no funding to initiate their own DIY's. Generally the skateboarders in Philadelphia were complete outcasts and further marginalized by their own government.



Figure 7a right: Modern day LOVE Park (Tony Bracali, 2013)

Figure 7b left: The 92-year-old Edmund Bacon skateboarding through Love Park to protest the skateboarding ban in the Philadelphia City Paper

KEY FINDINGS/LESSONS

The population of the City of Philadelphia (1.6 million) and Toronto has 2.7 million. Both are major cities that have produced world renowned professional skateboarders and have hosted National skateboarding events. The activism to keep LOVE PARK was symbolic for residents of cities all over the world. Thousands of skateboarders and other supporters organized rallies to get the council to reconsider their tactics and consider a new way of implementing change. The Skateboarding Advocacy Network SAN was a good example of how, with the right help and assembling the necessary stakeholders and allies,

skateboarders can civilly engage on a consistent basis. Today, SAN is a respected civil body of skateboarders, which are consulted on future skate related issues.

2.3.3 Case Study: Toronto Skate Stop Advocacy

INTRODUCTION

On April 28th 2016, Toronto Skate Stop (TSS) invited local news and media to an open forum panel discussion that featured stakeholders of their local skatepark – Dunbat located in city park Alexandra Park. Dunbat is built and ran completely by locals. The City Has no paid employees devoted to skatepark development or maintenance. The event was called *Skate of The Union*. It was an opportunity to get the local city councilor, skateboarders and other community members in the same room to discuss various perspectives and address important conflicts with downtown skateboarding. The mission was to discuss pressing issues in downtown Toronto skateparks and think of ways to make positive change. The panel speakers touched on everything from homelessness and housing concerns, litter, lack of amenities, state-of repair and demolition rumors.



Figure 8 left: Images showing Sanctioned Graffiti in the “Dunbat” Courtyard

Figure 9 right: Inside the “Dunbat” Courtyard

The panel asked Ward 20 Councillor Joe Cressey, “Aside from building new parks, what investments will be made in our existing parks and will you be including us in your developmental process?” To which he replied, “It’s important to find ways for youth to get involved. Skating is one avenue. Skating is urban, its creative. We need more of those spaces in our city. We don’t have enough skateparks.” Since then, Toronto has seen a rise in skateboarding/skatepark advocacy groups (Impact Skate Club, Toronto Women’s Skateboarding, etc) but little to no rise in actual skateparks or skate-friendly spaces. A group of skateboarders built a D.I.Y. on a walkway near Fort York grounds about six months after the City of Toronto demolished another D.I.Y. park on a pathway in the west end (Toronto Star, 2016; Kurek). In Toronto, there has been consistent push-back from the municipal government when local groups have tried to start their own D.I.Y. projects (CTV, 2017; Hong, 2017) but there is no designated financial support or individuals that build and maintain existing parks. The city expects skateboarders to take responsibility for the skateparks they “allow to exist” (Cressey, 2016), not the ones they want. This paradigm is a mystery wrapped in an enigma and is unlike any other sport or recreational activity that currently operates on city grounds and is the root of why we have seen a rise in DIY skateparks in Toronto in recent years.

ANALYSIS

During the event, panelists discussed the link between homeless/unemployed youth in Toronto and creating opportunities at the skatepark. As a result, TSS signed a memorandum of agreements with the City of Toronto that they would revitalize and beautify a courtyard that had been unused for the past 15 years. With the help of community engagement worker Jeff Thomas, TSS removed the weeds, cleaned out the garbage and developed a rest-area and safe space in a courtyard that separates the skatepark storage and the swimming pool. It became place for people to BBQ, eat, socialize, relax away from the immediate skatepark area. TSS also used this as a space for homelessness and job supports for the local skaters seeking housing and employment. We hosted art projects, games, meditations and discussion circles. The courtyard was also used to host consultations and interviews for the city-wide skatepark study. In the weeks following the City of Toronto removed TSS from the space due to “health and safety concerns”. They had safety and liability concerns and weren’t interested in working through them. Our community worker informed us that the city

reported back to the group that the wiring for amplified sound was a hazard and too close to the wet floor of the swimming pool.

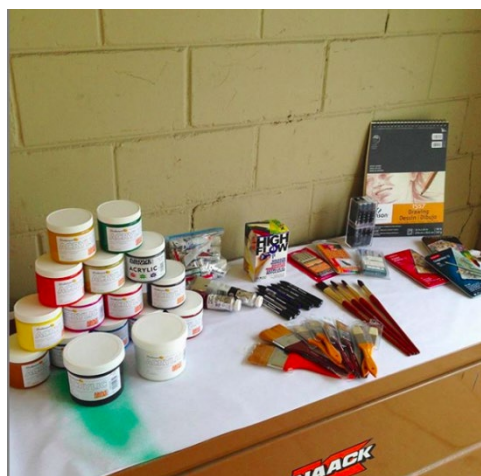


Figure 10: left Art Donations at the “Dunbat” Courtyard (Toronto Skate Stop, 2016)

Figure 10a: right 5-0 Competition at Dunbat Flyer (Toronto Skate Stop, 2016)

KEY FINDINGS/LESSONS

In Toronto, the main focus needs to be on finding new and innovative ways to get these DIY skate spaces built and built to last. Toronto needs a facility where young people can skate and have accessible pathways to the services they need. In hindsight, even with a memorandum of understanding or contract for the use of the land that includes some rules (property standards, conduct, other) there are other factors that should be considered. Hiring a Parks and Rec staff member to do a walkthrough of the space, audit and assess its operations could be a preventative measure with regards to “health and safety” concerns. In addition to that, perhaps identifying what the protocol would be if any issues should arise would help to mediate this process and prepare for potential issues.

2.3.4 Innovative Communities and Skatepark Development

Existing studies on the relationship between skateboarding and urban management tend to focus on the lack of provision for skateboarders, their exclusion from public space, and their marginalization from the decision-making process. A 2008 study at the University of California took a different approach, examining the ways that skateboarders have been included in the decision-making process and the ways that their

needs have been addressed. How does the community change the value of the space? The best evidence that urban managers view skateparks as a means of promoting personal responsibility is the growing trend for cities and other government agencies to sanction illegal skateparks after they are built. In cities across the country, skateboarders with construction experience have built parks on vacant parcels of land (often beneath overpasses) without permission, using their own materials and labor. Such parks exist in Seattle, Portland, Philadelphia, San Diego, Los Angeles, and Oakland. In all cases, the skateboarders were censured for working outside of official channels but also praised for their initiative and voluntarism (Levin, 2006).

Following are 3 case studies that exemplify innovative communities and skatepark development

2.3.5 Case Study: Frontside Gardens

INTRODUCTION

Frontside Gardens was a D.I.Y. project created by Andrew Willis in Hackney Wick, East London. He was awarded a 3 month lease by the London Legacy Development Corporation on a small plot scheduled for development as part of the post-Olympics regeneration plan. He built the entire park using reclaimed materials left over from the Olympic Games. The main feature of the park is a ski-jump-style large wooden ramp and a bowled out corner and a wall ride and half-pipe with a wooden street section that boasts several ledges and rails with banks and ramps on the other side. They built a temporary skatepark and events space, making use of the remaining floor of a demolished warehouse utilizing local waste and reclaimed materials. The skatepark ran between September of 2012 and January 2017.



Figure 11: Frontside Gardens. Main feature of ski-jump-style large wooden ramp and bowled out corner and a wall ride and half-pipe with a wooden street section

ANALYSIS

Frontside Gardens grew in popularity for a few reasons. The skatepark was in close proximity to a creative and close-knit community and was surrounded by new restaurants and breweries. By reusing Nike's *The Pool* transitions, recycling petrol tanks as plant pots, refitting old tennis club seats with spare timber, reusing cable drums as tables, replanting local unwanted shrubs, reclaiming metal from volleyball courts, Frontside Gardens is the leading example in a sustainable skatepark that had an epicycle initiative as part of the design. The project's success won Andrew a year extension to the lease and a small grant to help transform Frontside into an even more dynamic park. This is a great example of how skateparks can create change on a bigger scale.



Figure 12: Frontside Gardens Ramps in 2013

Figure 13: Frontside Gardens, recycled skatepark items

KEY FINDINGS/LESSONS

During our co-design discussion on sustainability in Toronto, there was a lot of discussion around repurposing and up-cycling old materials. Frontside Gardens was seen as a grant-worthy project by the developers due to the fact that they found a cheaper alternative for the post-olympics clean-up. If skaters in Toronto can address the link between the economics and architecture of building an indoor park, they may be more successful in leasing with city officials. Skateboarders need more places to skate but they also care about their cities and the environment. Using “waste” and/or recycled materials is a great way to collaborate with groups such as Parks and Recreation to not just build skatepark obstacles but engage the community around a DIY project with an important cause. During our co-design sessions, participants brought up innovative ideas like creating bricks out of plastic & sand, or reusing old street furniture that has been thrown out.

2.3.6 Case Study: Bordertown & Bay Area Social and Political Capital

INTRODUCTION

The Bordertown Skatepark in Oakland was an unauthorized skatepark built beneath a highway overpass on land owned by Caltrans, the state’s transportation authority. When Caltrans discovered the park in 2005, they announced that it would be demolished immediately. However, the park was saved when local political elites—Mayor Jerry Brown and U.S. Senator Barbara Boxer—weighed in on the side of skateboarders

(Lundstrom, 2005; Zamora, 2005a, 2005b). The president of the city council, Ignacio de la Fuente, remarked that, “it was amazing to see something so large and complex built totally by youth volunteers, and paid for out of their own pocket money. Caltrans has some concerns about liability and its land being built on illegally, but you’d have to have your head in the sand to not see there is something wonderful happening here” (Howell, 2008)

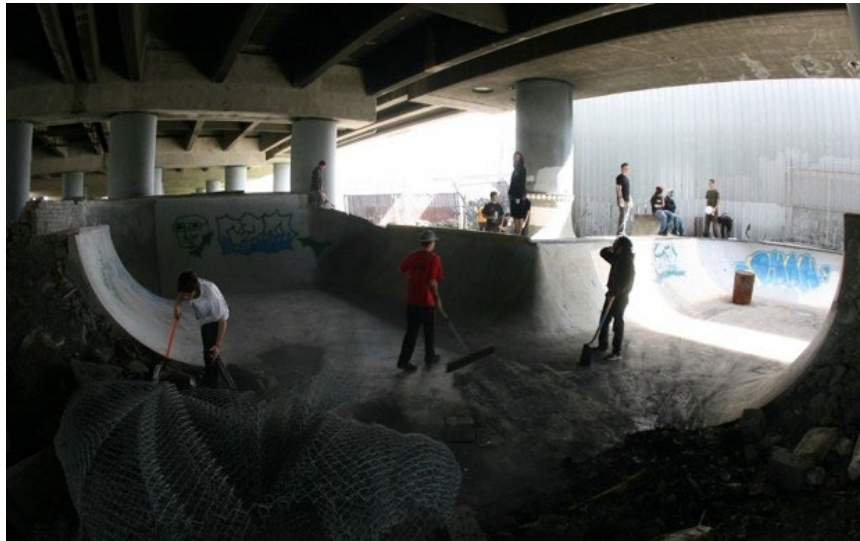


Figure 14: Skateboarders clean the skatepark. (Howell, 2008)

ANALYSIS

Design intervention is at the root of skate culture. The drive to create DIY skate spaces with or without permission is a direct response to a lack of suitable facilities and being pushed out of ‘public’ spaces in an effort to regulate skateboarding. When asked what he liked best about participating in the D.I.Y. skatepark, a skateboarder said, “Fellowship, mastering something creates inspiration which pushes the culture in the right direction” (Howell, 2008). The Bordertown skatepark is one of many examples in the United States where the skateboarders built on abandoned, unauthorized land and were supported by their municipal government once the project was completed. These skateparks are commonly built from found and donated construction materials molded through the use of rudimentary tools such as shovels and pickaxes.

These lunar-like landscapes incorporate features of backyard pools and drainage ditches into improvised work-in-progress. This kind of “spatial justice” and unauthorized developments of these skateparks emerge out of the skateboarders’ need to reclaim space (Howell, 2008).

KEY FINDINGS/LESSONS

Each local advocacy group has different types of social and political capital they could use to generate different strategies for networking and promoting their skatepark builds.

The support of well-known skateboarders, the involvement of influential politicians, corporations, supporting diversity and civic leadership in communities, providing low cost services and opportunities are all pathways to creating a successful and inclusive skatepark.

There must be a diverse range of partnerships, with unique missions and working practices, that demonstrates how individuals engage with their constituents in positive and innovative ways. (Orpana, 2016) suggests that ‘this type of coalescence around a skatepark reflects the DIY ethic that city governments have begun to promote’.

2.3.7 Case Study: Oregon Skateparks Community Space: Beyond the Vernacular

INTRODUCTION

Power plays in Public Space: Skateparks as a battlegrounds, gifts and expression of self was written by Stanton Jones and Arthur Graves from the University of Oregon, United States. In it, they examined 6 skateparks in Oregon and developed proposals to respond to unmet needs in the community. The data included field observations, interviews with skaters, city workers, stakeholders and others involved in the creation, management, and use of these skateparks. They discovered that a Burnside Skatepark, known around the world as one of the best existing DIY skateparks, was in their town. Since 1991, locals have built this transitional skatepark by hand and with their own funds. For decades, Burnside was the Mecca for world-class, extremely technical skateboarding. Burnside was never supposed to last in the first place but has

persisted because skaters established key relationships with property owners and the Central Eastside Industrial Council business group, and those relationships have endured (Jones, 2000).

To further understand skatepark dynamics the researchers hoped to uncover whether skateparks impact neighbors differently than other park features such as basketball courts. They conducted questionnaires of neighbors within five blocks around each park and took noise level readings within each park.

ANALYSIS

The researchers interviewed 100 skateboarders from 6 neighborhoods over 2 years and found these main problems with the existing parks; design issues at a site scale, design issues at a neighborhood scale, issues pertaining to power and control, cultural contexts and pastiche participation, the use of research and the misuse of precedents.

Neighbors of proposed skateparks often voice their opposition to local siting efforts based on perceived impacts on their quality of life. The author's goal was to uncover the realities of living near a skatepark. Aperio Consulting selected four parks to study, two of which contained skateparks. Skateparks were paired with "control" parks on the basis of location, distance to homes, activity levels, and amenities. At both skateparks, peak noise levels averaged 70 decibels when 50 feet from the skatepark. Beyond 200 feet, sounds were drowned out by other noises including. Table 3 is a noise level reference chart from the *League for the Hard of Hearing*. Listed below are everyday noise readings from home, work and outside. The numbers adjacent each listing represent decibels which is a unit of measuring sound.

Table 3: Noise Levels

(Jones, 2003)

LEVELS	<p>*All levels within close range Source: League for the Hard of Hearing Reality. Skateparks generate noise levels comparable to other park facilities. Perception: Skateparks are excessively noisy.</p>	
<p>Home 50 Refrigerator 55-70 Dishwasher 75-85 Flush Toilet 80 Ringing Telephone</p>	<p>Work 50 Large Office 65-95 Power Lawn Mower 95 Electric Drill 110 Leaf Blower</p>	<p>Outdoors 85 Heavy Traffic 95-110 Motorcycle 110 Car Horn 117 Football Game (stadium)</p>

KEY FINDINGS/LESSONS

It is imperative that perceptions are managed in an objective manner and all stakeholders opinions are concerns are weighted equally.

Below are some examples from the study of how realities can conflict between skatepark users and skatepark observers.

Table 4: Skatepark Perceptions

	SKATEPARK USERS	PARK OBSERVERS
Graffiti	Public art, personal expression, reclaiming space, culture	Defacing public property, aggressive behavior, territorial
Litter	Litter can be due to many factors. Non-skaters using the space, lack of accessible or empty garbage cans and so on. Skaters dislike litter too. Skateboarders care deeply about their parks.	There is litter, the skatepark isn't well kept, and Skaters are inconsiderate.
Crime	The study shows that despite popular opinion, there is very little recorded crime at skateparks. Salem, Oregon is one of the many cities in the US that have agreed that skateboarders are a designated "eyes on the street" taking on issues such as drug dealing, prostitution, bullying and theft.	<p>The heavy hip-hop/punk/rock & roll influence in skateboarding represents deviant, bad behavior.</p> <p>The Skatepark is a run-down place where criminal activity takes place.</p>
Noise	Based on these readings, we found that skatepark sound levels are no louder than other park uses or other noises such as traffic passing by and airplanes overhead. Sound levels were similar to basketball courts and to children playing on playground equipment. Noise levels were within the City of Portland's code limits.	The constant clashing of metals, banging of boards and yelling makes skateparks louder than most places.

The primary findings of the study were:

- Skateparks do not contribute to serious crime
- Skateparks do not contribute to nuisances such as litter, noise and vandalism
- Skateparks have similar impacts as basketball courts
- Neighbors of existing skateparks have predominantly moderate perceptions of skateparks

If we address the skatepark perceptions in Table 3 and reference the primary findings in the study, it suggests that there are significant inconsistencies between the perception and realities of skateparks.

2.4 How does building a skatepark foster civic engagement and youth leadership?

The Bay Area Skate Park Group felt they needed to counter the assumptions of skateparks as a gathering space for troubled youth and thus framed their advocacy for skateboarding as a family friendly and healthy space. In San Jose, they were responding to issues raised by the economic recession, especially the cutbacks to public services. They framed their advocacy as community effort to have a safe and healthy outlet for youth. In Oakland, they wanted to respond to the lack of ethnic minority ownership in skateboarding in the gentrified West Oakland community. They used the, espousing Town Park as a platform for economic vitality creating neighborhood ownership for the local youth (Beal, 2017).

'Skateparks are not only the product of new limited-liability legislation; they can also be viewed as both incentive and reward for young people who accept that they are responsible for themselves' (Howell, 2008). Skateboarders utilize city terrain in more unique ways than the average pedestrian navigating the streets. They have much to offer, not just ideas on how to build skateparks, but entire cities.

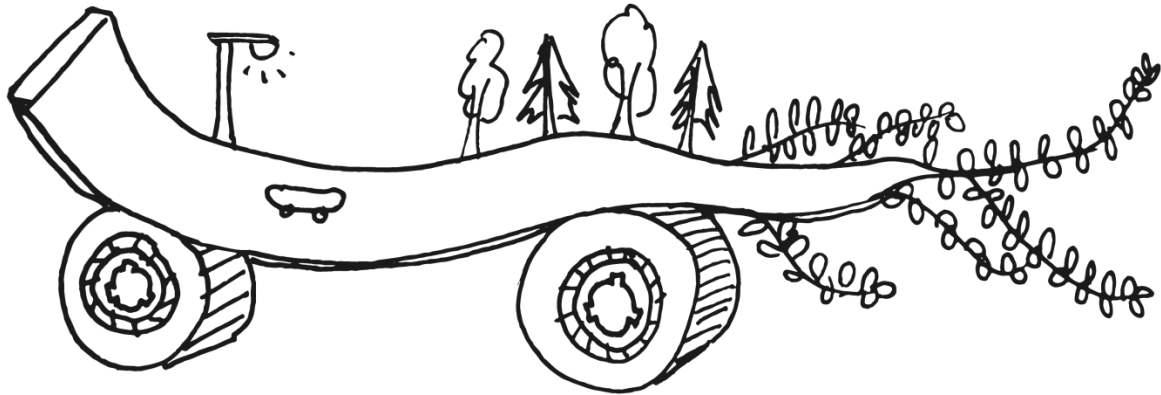
Case Study Takeaways

Skateparks require sanctioned space to ensure longevity. A well-designed skatepark that engages the local skate community addresses risk issues better than creation of skateparks. Municipal support and finance for infrastructure can promote the use of skateparks. There needs to be an inclusive process that involves the skateboard community, local community and municipal authorities in the site planning and development. The process of co-design within a system that addresses these many issues and allows skateboarders the ability to design their park to reflect their communities' needs and user expectations.

2.5 Co-Design is Critical to the Success of Skateparks

As we have seen from the studies, co-design affords an opportunity to uncover potential solutions for diverse users. The success of a skatepark is mainly determined by how often it's used and user satisfaction. A skatepark that is conveniently placed but poorly built is similar to a park that is remotely located with exciting features; both sites will have infrequent visitors. Building successful skateparks involves engaging all members of the community and receiving direct input from its users and constituents. A future version of this study would also include city planners as skatepark users could benefit from a more bureaucratic perspective.

Chapter 3



Initiate

3.1 Initiate

Now you've had a chance to see what it's all about. It's up to you to make the initiative! Skateboarding is a solo activity which means you are your own coach. To get rolling, you need wheels! To start a co-design, you need to plan your methodology. Once that's complete your job is to reach out to the experts, skateboarders to uncover the secrets you're looking for. How are you going to carry this out? Where are you going to practice your skills? Will you wear a helmet? Knee pads? Is it safer to start on the transitional obstacles and then graduate to street? Just like in a co-design, what plans and connections do you need to make prior to the sessions? What kind of community alliances are necessary to help carry this out? Who shares your vision? Who has similar goals? How will the sessions look? Who is your audience?

3.2 Purpose of the Research

The Intrinsic Value of Co-designing skateparks is a research study meant to challenge our assumptions about skateparks using skateboarders as the vessel. The desired outcome is to create a process map of creating a sustainable, long-term DIY skatepark based on direct input from skatepark users. By doing

this, we hope to support and add value proposition of an indoor, DIY space in downtown Toronto and share our results.

The benefits of this study include engaging local skaters in creative co-design sessions to share ideas and insights on what encourages sustainable skatepark design. From this data, we would like to design the framework of how skateboarders envision their skate spaces and how to uncover what matters most to them. We wanted to uncover how to design skateparks in a way that bridges the gap between skateboarders and the rest of the world. How can skatepark design help to improve general misconceptions and perceptions of skateboarding? The published resources about skatepark co-design were scarce. This paper will add to that body of information by investigating key issues around the development of sustainable DIY skateparks through direct consultation with skatepark users, builders, advocates, and members of the Toronto skateboard community.

3.3 Interviews with Tony Hawk Foundation

In the spring of 2018, I conducted a series of 3 video call interviews with Peter Whitley, Program Director of the Tony Hawk Foundation. He and his team have worked on similar projects on a national level. To-date, the foundation has awarded over \$5.7-million to 588 public skatepark projects in all 50 States (Tony Hawk Foundation, 2019). I carefully observed the details Peter shared about his experience leading a skate spot co-design with skateboarders in New Orleans following the devastating flood of 2005, Hurricane Katrina (NOLA). The skaters from that community did something quite original and profound. Following the tragedy, all of the obstacles they designed implement running water. Here are some of the images from the NOLA co-design.

North Roman / Charbonnet Links (2)



Skate Spots use form, color, texture, and even signage to reflect characteristics of the Lower 9th Ward.

The spots will focus on aspects of Katrina as it relates to the Lower 9th.

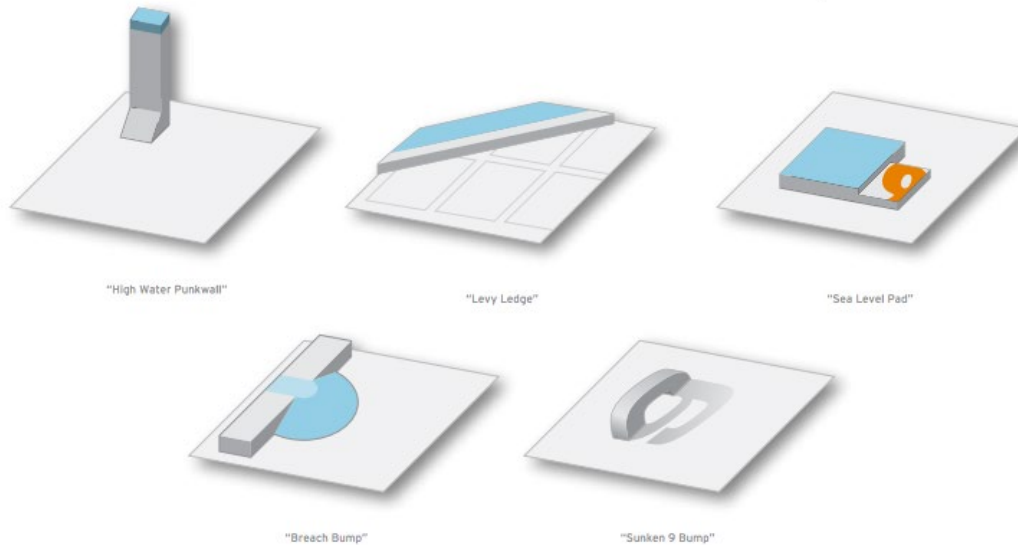


Figure 15: Tony Hawk Foundation NOLA co-design

The North Roman/charbonnet Links (*see Figure 15*) are an excellent representation of how skateable art can create dynamic, meaningful skateparks. New Orleans had a few remote skateparks and the skate community wanted to introduce small sanctioned skate spots in the downtown core. The spots that the co-design produced, focus on the impact of Hurricane Katrina as it relates to the Lower 9th area. These skate spots use form, color, texture, and signage to reflect characteristics of the Lower 9th Ward before the disaster but also commemorate it with the implementation of water as an obstacle.

3.4 Planning the Co-Design Framework

A co-design framework consists of creating a proposal, implementation and rollout plan for the study. With the help of Inclusive Design research practices, I planned an *inclusive* co-design methodology to explore common themes amongst skatepark users to share knowledge and insights around a hypothetical DIY indoor skatepark in Toronto. The Inclusive Design Research Centre have defined Inclusive Design as: *design that considers the full range of human diversity with respect to ability, language, culture, gender, age and other*

forms of human difference. (see Figure 16). This approach guides the vision for an inclusive skatepark because through recognizing the interconnectedness of users (skateboarders) and systems (neighborhood, community, planning departments, etc.) it addresses the needs of users (improved skateparks) using inclusive processes and tools (DIY & Prototyping) to create a broader beneficial impact. The inclusive design dimensions were the pillar of this research study and each step informed the co-design themes.



Figure 16: Inclusive Design Dimensions Diagram, IDRC 2019

3.5 Designing the Agenda and Flow

I secured venues, designed promotional items, commissioned artwork for a video advertisement, presented at a fair, all to promote three, 2-hour co-design sessions where topics included; DIY skateparks sustainability, skatepark safety & enjoyment and designing meaningful & unique obstacles. The details of my outreach strategy and everything that followed will be explained in the preceding pages. The constructive interaction is a method based on the participatory research studies used in my proposal.

Co-design and groupthink will be an unfamiliar style of exercise for many. It was important to set up the event by sharing some stories and perspectives on what the plan of action is and why you're doing it. Establish credibility with your group and explain where these methods come from. Plan your discussion topics and brainstorming activities. What are you trying to learn? Plan hands-on activities. Sticky-notes are great for experience journeys, sorting and knowledge share and modeling includes creating physical mock-ups of tangible products, spaces, or things.

The call for participants was to recruit diverse, talented and creative skaters for a "focus-group-style" research study. Those selected will be asked to participate in three collaborative design sessions over the summer in locations around Toronto. Participation involved engaging in group discussions, activities and modeling/prototyping exercises to record ideas for a hypothetical indoor skatepark. Food, drink and a small honorarium was provided and as an appreciation of their time.



Figure 17 left: Aaron Jones in Instagram AD



Figure 17a right: Will Cohen Instagram AD

Instagram is the third most popular social media site with 1 billion monthly active users. 32% of all internet users have an Instagram account and 60% of them are between 18-24 years old. This seemed like the best platform to focus my co-design outreach as it is also connected to other platforms such as (Facebook, twitter, etc.). Given that this study was focused on implementing skateboarders at every stage of the design process, I collaborated with @DeiselRaptor (Connor Smith) on a rotoscoped skate video advertisement (See Figure 18 and 18a). I created a storyboard for the commercial and he animated clips of skateboarders Aaron Jones and Will Cohen from Morning Bell Skateboards. With over 28,000 followers on Instagram, I knew that hiring him would not only produce a quality advertisement but it would also increase the audience reach. Having a pro-skateboarder alliance proved to be helpful in recruiting participants. They also agreed to participate in the study which helped spread the word even more!

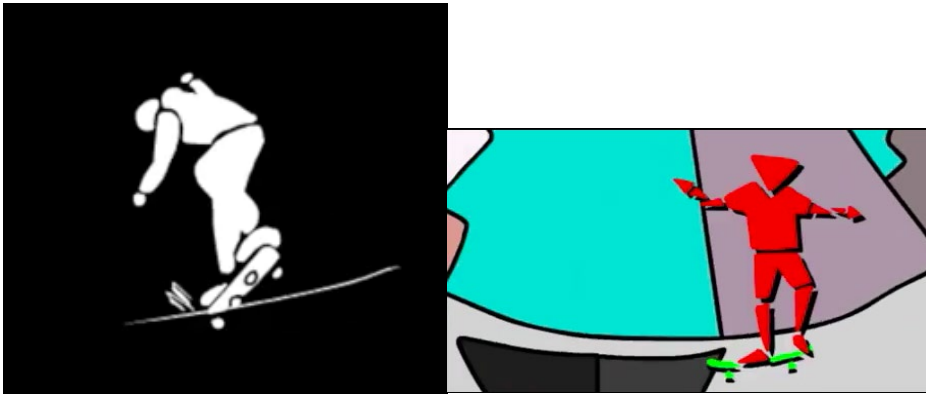


Figure 18 left, 18a right Screenshots from Instagram AD (Toronto Skate Stop, 2018).

Figure 19: Flyer Design : That's S.I.C! (Skate, Innovate, Create) This poster was designed by research assistant Jaywhy Kim. We posted it around local skateparks and skate shops and used the media file on Facebook and Instagram.

THAT WAS SIC!
SKATED
INNOVATED
CREATED

SHRED THE BOX

We are inviting a diverse group of skaters from Toronto to co-design and model an indoor skatepark! Apply today, spots are limited!

Food and drinks will be provided! All ages welcome. Skaters only. Email: tontoskatestop@gmail.com for more details

LOCATION

QUEEN AND BATHURST
CONTACT FOR LOCATION
JULY 28 12-2PM

CHRISTIE PITS SKATEPARK
779 CRAWFORD ST. TORONTO
AUGUST 11 6-8PM

OCADU GRAD STUDIES
205 RICHMOND ST WEST.
AUGUST 31 530-730PM

BROUGHT TO YOU BY

TORONTO SKATE STOP FOUNDATION

TONY HAWK FOUNDATION

OCADU

Tacos Bros

medium

3.5.1 Co-Design #1 Skatepark Sustainability

WHO:

Participant 1 F BMX/DESIGNER
Participant 2 M BMX/DESIGNER
Participant 3 M SKATER/INSTRUCTOR
Participant 4 M SKATER/DESIGNER
Participant 5 F SKATER
Participant 6 M SKATER/DESIGNER
Participant 7 M SKATER/DESIGNER
Participant 8 M SKATER/BUILDER
Participant 9 M PRO SKATER/ARTIST
Participant 10 F SKATER/BUILDER
Participant 11 M SKATER/JOURNALIST
Participant 12 M SKATER

WHAT:

In this session, we discussed the topic of the need for an indoor skatepark facility in Toronto. We also wanted to figure out the link between the exclusion of skaters from skatepark design, the demolitions and relocation of DIY parks and what makes a skatepark sustainable.

WHERE:

The first co-design was located at a live music venue/apartment space that is now permanently closed for business. Soybomb is an on-going DIY passion project created by Jason Wydra. Jason, the owner has been instrumental in providing an underground indoor skate space to skateboarders in the downtown area. Soybomb is not an official skatepark but rather his living room. Jason built this place from scratch and has opened his doors to hundreds of people for mostly hardcore concerts where the key feature is the mini-ramp.

WHEN:

June 8, 2018

WHY:

Inquiry into the need for an indoor skatepark, using mapping and visualization techniques like cut and paste and collaging. The group had an open discussion around demolition of DIY, new ideas for long-term parks and what makes a skatepark successful?

Activities:

1. Discussion and Ice Breaker
2. Mind-mapping, Open card sorting
3. Collaging, sketching
4. Interviews



Figure 20 top, 20a middle, 20b bottom: Co-Design Images

3.5.2 Co-Design #2 Skatepark Safety and Enjoyment

WHO:

Participant 1 M SKATER/INSTRUCTOR
Participant 2 M SKATER/DESIGNER
Participant 3 F SKATER
Participant 4 M SKATER/DESIGNER
Participant 5 M SKATER/DESIGNER
Participant 6 F SKATER/BUILDER

WHAT

In this session, we discussed the topic of the need for an indoor skatepark facility in Toronto. We also wanted to figure out the link between the exclusion of skaters from skatepark design, the demolitions and relocation of DIY parks and what makes a skatepark safe and fun.

This session consisted of skatepark walkthrough where participants described their journey in the space. The tree diagram activity encouraged them to consider new possibilities and to envision a better solution. What makes skateparks safe/unsafe? Do graffiti arts enhance or diminish the quality of your experience at the park? Should restrooms be a legal requirement?

WHERE

Our second co-design was at an outdoor park a few of our team members helped to build last summer, a temporary outdoor skatepark located in the hockey rink at Christie Pitts Park.

WHEN

July 13, 2018

WHY

Hosting the co-design on site at a new DIY skatepark fit well with the question at hand, what makes skateparks safe and enjoyable? The sessions was meant to Investigate which skatepark design elements promote safety and repeated use. Also, how do amenities, or the lack of, have an impact on the user?

Activities

1. Ice Breaker
2. Mind-mapping, Problem Tree
3. Tour Skatepark
4. Modeling



Figure: 21, 21a Co-Design #2

3.5.3 Co-Design #3 Designing Meaningful Obstacles

WHO

Participant 1 F BMX/DESIGNER
Participant 2 M BMX/DESIGNER
Participant 3 M SKATER/INSTRUCTOR
Participant 4 M SKATER/DESIGNER
Participant 5 F SKATER
Participant 6 M SKATER/DESIGNER
Participant 7 M SKATER/DESIGNER
Participant 8 M SKATER/BUILDER
Participant 9 M PRO SKATER/ARTIST
Participant 10 F SKATER/BUILDER
Participant 11 M SKATER/JOURNALIST

WHAT

The purpose of this co-design session was to engage real world skatepark users in design activities to uncover new ideas and priorities for the design flow and structure developments of a DIY indoor skatepark. How do historic sites play a role in skateboarding? Are skateable art and other unique obstacles important to skateparks? Should we Co-design an indoor park for Toronto?

WHERE

Our third and final co-design session was conducted at the Ontario College of Art and Design where the institution provided a room for us.

WHEN

August 13, 2018

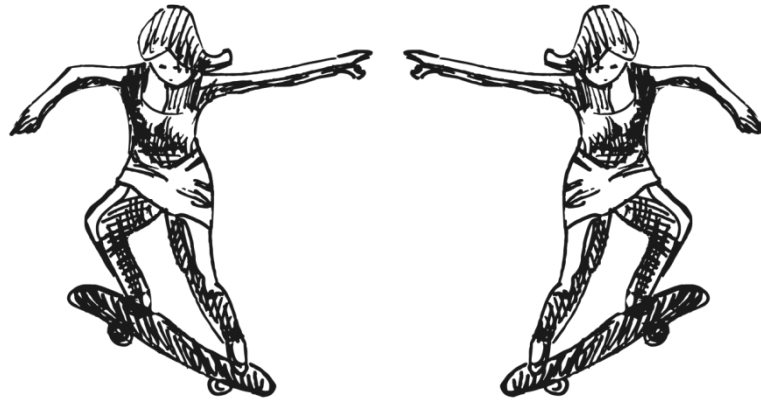
WHY

In this last focus group, we wanted to discuss about the importance of D.I.Y. the underlying connection to designing meaningful obstacles. New and previous participants were asked to reflect upon the past discussions around ideal and sustainable DIY parks, apply and create 1 mock-up of an obstacle they envisioned in the park. Our goal is to present these ideas in a way that connects with other stakeholders and shows the greater value of the insights.

1. Ice Breaker
2. Mind-mapping, Closed card sorting
3. In-depth discussion
4. Sketching Modeling



Figure 22, 22a: Co-Design #3



Chapter 4 Reflect

4.1 Reflect

Through initiation and persistence, you learned a few new tricks! You have spent hundreds of hours learning, trying, falling and getting up again. It's time to reflect on your progress! Your co-design sessions will be tuned to your participants and your results will be reflective of what the community needs are. Once you have collected all of your research findings go ahead and sort through the data to address common themes and threads from each activity and discussion that took place. The 3 co-design sessions were meant to illustrate aspects of co-design with the goal of designing a DIY skatepark with direct input from the experts, its users. Chapter 4 describes what was learnt from the skateboarders and applies the feedback to the potential outcomes of a future skatepark plan.

4.6.1 New Ideas Explored

From the three co-design sessions, we generated over 50 ideas including sketches, mock-ups and scenarios. Participants identified the wide range of skateboard users that our parks serve. We defined these groups as APE (*All skaters, Pro skaters, and Everyone*) to help distinguish each of their unique needs. The skatepark is made up of all skaters (novice to experienced), professional skateboarders, and everyone

(skaters and non-skaters (bystanders, chaperones, friends, etc). Following in-depth discussions around ideal parks and meaningful obstacles, we established that certain obstacles designs were more accessible to *all skaters*. These elements include, ramps, hips, smooth surfaces, lit up areas, skateable art and more. We developed a portfolio of meaningful obstacle designs that Toronto skaters are looking for. Our insights tell us skateboarders are looking for “hybrid” style parks with emphasis on new engaging forms, specifically “Green Skateparks”. Upcycling materials, integrating plant-life and experimenting with renewable energy is a progressive way to go in terms of design methodology. Building a park with these principles can help improve public morale and create a more sustainable and inclusive skatepark environment overall. Our participants felt that skatepark designers should begin to consider using flat space in new creative way. The group discussed using inclusive way-finding such as colored and textured paths to help create zones according to speed that encourage safety.

4.6.2 Inclusive Design within the context of Skatepark Development.

In order to create a successful skatepark plan, your group must understand what it means to design inclusively. The Inclusive Design Research Centre at OCAD University has defined Inclusive Design as: design that considers the full range of human diversity with respect to ability, language, culture, gender, age and other forms of human difference.

The three pillars are:

- 1: Recognize diversity and uniqueness: Encourage skaters of all backgrounds to get involved
- 2: Inclusive process and tools: Engage the public and greater community in co-design
- 3: Broader beneficial impact: Consider all the ways your skatepark development will make positive, tangible change.

(IDRC, 2019)

There is room for *everyone* to participate in certain phases of the project. Allowing space for users to actively participate in its development will foster leadership within the community and allow skateboarders to have reasonable authority over the space.

**The focus of the co-design was the engagement of the skateboard community while in the future a more developed co-design process would involve multiple sessions that also include members of the wider community.*

4.6.3 Co-designing your skatepark should offer:

Insights and Knowledge

1. This type of research is meant to define the experience and identify opportunity gaps.

What is your co-design trying to uncover and why? This type of focus group allows stakeholders to share, relate and offer feedback on any issue. Align the opportunity gaps between different users to help define what needs to be changed.

2. Co-design should generate new ideas to achieve ideal state and prioritize concepts.

Albert Einstein said, "We cannot solve our problems with the same thinking we used when we created them." In order to fix existing design issues we need to change our mindset. Unlearning standard methods of skatepark development can be challenging but very rewarding in the long run. Think of creative ways to engage skateboarders in design activities that promote innovative skatepark solutions..

3. Prototype & refine prototypes

Apply your ideal state philosophy to your prototypes. Rapid prototyping produces fast, tangible results, and experiments and iterations promote growth. Your participants can create clay models of obstacles and placed them in a skatepark model. From these designs, you can continue the prototyping iteration and digitally re-model and 3D print it.

Co-design should:

Identify a challenge and Create opportunity:

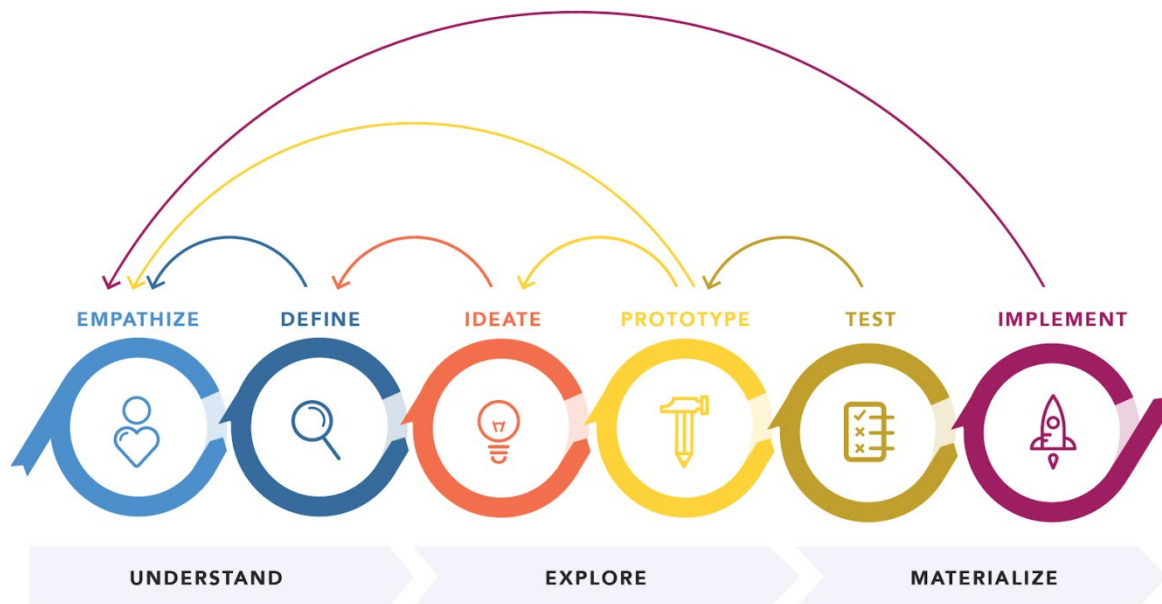
4. **Align and inspire participants on challenge and possible ideal state.** Each design session is meant to build on the last. Improve ideas, make mistakes, learn and try again. Invite skateboarders with mobility issues, language barriers and learning disabilities to your co-design. The opinions of outliers are very valuable especially when dealing with an underserved community like skateboarders. Equal access is not only a legal requirement but an important social factor that will significantly improve the space. Address issues of inclusivity at a base level. Will this skatepark be accessible to those who experience physical or socio-economic challenges? Consider the design of your skatepark just as important as its policies. Build physical, psychological and philosophical pathways with the wide range of human diversity in mind.
5. **Iterate, build on ideas and create prototypes.** A prototype is one solution. You will create many over the course of your co-design process. Build on these ideas as a group and learn as you grow. Don't be afraid to go back to the drawing board, especially if you are trying brand new concepts. If your skatepark is DIY or built by community members, consider having a mentor or leader who can streamline this facilitation smoothly and with experience.
6. **Align on an implementation plan** and a path to take those next steps together. Once the research has been done, prototypes made and tested. it's time to implement your ideas. Take action to see your goals come to fruition. The next steps go far beyond the scope of research and are really about advocacy, fund allocation and building capacity.

Once you have taken action and achieved your desired outcome, you should have an inclusive skatepark as the result.

Revisit the **Objective statement:** The Intrinsic Value of Co-designing skateparks is a research study meant to challenge our assumptions about skateparks using skateboarders as the vessel. The desired outcome is to generate new ideas for a skatepark based on direct input from skatepark users. By doing this,

we hope to support and add value proposition of a DIY skatepark in downtown Toronto and share our results.

4.6.4 Design Thinking Process Model- Figure: 23 Design Thinking Process Map, NNGroup.com



DESIGN THINKING 101 NNGROUP.COM

Co-design brings stakeholders together to share their broader perspective on a topic. This type of design uses hands-on activities to create new and innovative ideas. The result is these sessions will generate visual physical prototypes to bring ideas to life that can be rapidly iterated. Co-design is a tool used to take the ambiguity and risk out of a design activity by including stakeholder input and can be used to identify the unique needs of the user. Co-design lives within a *multi-phase* design approach. Each step is a prerequisite for the next and as you work through the Design Thinking Process Model (see Figure: 23) defining your co-design objective becomes clearer.

Empathize

Understand a need in your community. If you can empathize with the user group you can have a better understanding of how to carry out the process. Skateparks built by skaters offer well-thought out plans that create specific experiences and have been known to attract more skateboarders to it. Conduct a skatepark study or needs analysis to get the root of what needs to happen. The Intrinsic Value of Co-Designing skateparks co-design offered an opportunity to show how the sessions helped the community to come together to understand their needs and desires for the design of the skatepark.

Below is an Analytical Matrix called “Why is DIY Important” that the participants created from the Intrinsic Value of Co-designing Skateparks Co-design #3 (Designing meaningful, unique & challenging obstacles). In it, they address 5 outcomes of DIY that matter to them as skatepark users.

Why is DIY important Analytical Matrix'

We asked skateboarders, “Why is DIY important?” They said...

- Fulfill: We need to fulfill a need. There are thousands of skaters with nowhere to go when weather conditions are poor. We need more safe spaces for youth.
- Inspire: Create a sanctuary for underprivileged youth. Grassroots initiatives promote positive outcomes. Machine made loses its story
- Learning: DIY involves research and knowledge sharing. Innovations to change and nurture the space, teach future generations.
- Self-Governed: Fostering positive leadership and encouraging skaters to take initiative in their communities and lives.
- Synergy: DIY promotes communication, connecting the dots, overall builds synergy in park

In Co-Design Session #2, Skatepark Safety and Enjoyment we identified a list of problems, remedies and their potential outcomes and mapped this data out into a problem tree *see figure 24*.



Figure 24:Co-design Problem Tree; Problems and Remedies for Skateparks

Define

After preliminary research, define the issue what needs to be changed through your consultation. Co-design should help uncover specific challenges whether it be in service or design. If your skatepark park will solve a prominent problem identified in the last step, then you are on the right track. In co-Design #1 Skatepark Sustainability we identified skatepark problems at a design scale and looked deeper into the social benefits of DIY. We read the notes aloud and as a group and identified common themes. Our Problem tree looked at the root causes of skatepark sustainability issues as well as potential remedies the group agreed on. Here we were able to connect the dots and see where the problem lies.

In addition to addressing skatepark problems, The co-design sessions provided a means to define the key design criteria of skatepark development as shown in Table 5 below.

Table 5: Co-Design Summary Table			
Skatepark Attributes	Sustainability	Safety and Enjoyment	Meaningful obstacles
Concrete Construction	Skatepark sustainability and cost analysis can benefit from concrete as a material and provides an ideal option with an easily maintained and smooth surface that skateboarders find very attractive (Daskalov, 2015). Ramps made of steel are noisier, get chipped and rust. Ramps made of wood and masonite needs to be checked regularly for screw heads that back out. They don't hold up well under inclement weather and they don't take the abuse of the sport very well. These factors increase maintenance costs and in a few years the ramps need replacing (Calgary Skateparks	Users are really attracted to the hard riding surface which is much quieter, than riding on wood or steel. A concrete park offers near-silent skating conditions. The traction between smooth concrete and polyurethane wheels is excellent and it gives skaters the best feel on their board out of all other materials (Daskalov, 2015). Concrete parks are least slippery when wet and it dries extremely fast.	Concrete provides something that is far more durable than any other skatepark material. It is also very malleable which allows for creative, unique obstacle shapes and designs. . For comparison, when plywood is exposed to moisture it becomes soft, tends to crumble forming holes in the surface, and only after a couple of years is in need of a replacement piece.

Table 5: Co-Design Summary Table

	Amenities Startegy, 2011). Concrete is durable, which means longer lasting skateparks.		
Changeable Design	Modular obstacles in a concrete space are sustainable because unlike concrete structures they are <i>meant</i> to be moved around which creates new and exciting skateboarding experiences. Skaters are all progressing at different levels and can't be expected to skate the same things. DIY parks should aim to be inclusive in that they are designed for the individual and not the "average skater". Skateparks that offer a multi-dimensional skateboarding experience with varying difficulties directly influence growth and contribute to a level of comfort and familiarity. Dunbat skatepark in Toronto is a seasonal park (ice rink) with no permanent features. It is notoriously known for its simplicity.. With no regular maintenance schedule, poor park planning, downtown skateboarders have been forced to get creative. Picnic benches, pylons, water barriers and street furniture have been added to spice things up..	Innovation and experimentation is important to skaters.. Obstacles and spots offer unique skateboarding experiences and their locations hold epic histories that make for excellent stories. "42% of the 2015 Skatepark Survey respondents indicated that they travel to other cities to skateboard. Of those, more than half visit other cities in the Greater Toronto and Hamilton Area, with Mississauga, Hamilton, and Brampton being the most visited. Many travel across North America to skateboard in cities like Montreal, Vancouver, Calgary, Los Angeles, New York, and Detroit/Ann Arbor. Some even travel internationally, to skateboard in places like Barcelona, London, Hong Kong, Paris, and Tokyo" (City of Toronto, 2016).	In our co-design sessions, participants spoke about how having new, fresh features in a permanent indoor park would be exciting in itself but having the opportunity to design, build and contribute to it takes the park to a whole new level. The skateboarders are going to be the primary users of the space and therefore should have some jurisdiction over how the space is run and what is put into it. Having the opportunity to collaboratively design and co-create your own space gives people a certain level of agency over it.

Table 5: Co-Design Summary Table

<p>Beginner Friendly</p>	<p>Skateboarders come in all shapes, sizes and walks of life. If a skatepark is beginner-friendly it affords diversity, community building and inclusion. Participants from our co-design recall feeling intimidated and nervous about visiting their local parks as beginners. They reported that they are sometimes unintentionally pushed out of skateparks that (are too crowded, cliquey, lack architectural flow and have no simple structures). They also reported on the moral support that some advanced skaters will offer if you ask them for advice. The sport is all about overcoming challenges and an indoor skatepark facility would offer long term space for skaters to continue learning and mentoring each other.</p>	<p>A beginner-friendly skatepark is one that has all of the elements of a safe and enjoyable skatepark. Lights, amenities, smooth surfaces and public art are equally as important as creating slow/fast zones, encouraging all ages skate spaces and providing progressive educational experiences. Skateparks made with these attributes create a safe space for people to give skateboarding a try.</p>	<p>My research findings support the idea that skateboarders prefer mixed-use and hybrid-style skateparks. A beginner may want to try different types of obstacles (bowl, ledge, stairs) before deciding where they will spend their time practicing that day. When you ask beginners to design “beginner-friendly” obstacles they consider the park as a whole.?</p>
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Table 5: Co-Design Summary Table

<p>Green Space</p>	<p>Skateparks have rarely been considered environmentally friendly facilities. All skateparks promote a healthy, active and “green” lifestyle via people-powered recreation and require very little impactful maintenance making them strong potential assets for any community (Tony Hawk Foundation, 2012). Plant beds or raised planter boxes are useful devices for defining the skatepark’s perimeter and can be used for subtle wayfinding as skaters tend to avoid riding into or stepping on them. Skilled skatepark designers can use these green spaces as functional elements—to help direct traffic within the skatepark space, mark its boundaries, and also provide important natural drainage for rainwater.</p>	<p>.Skateparks can utilize low-water intensive plants and vegetation in the design to reduce the heat-island effect caused by the concrete skating surface. Trees can be planted to supply shade and rest areas. Care should be taken that plants used within or adjacent to skateparks do not distribute sap, needles, leaves or other debris that can introduce “tripping hazards” to skateboarders (Tony Hawk Foundation, 2012).</p>	<p>Nature is a natural obstacle. Intentionally placing beautiful un-skateable items in the off-limits zones could dramatically improve one’s perception of the park. Here are the reasons why according to our participants: plants look good, they are relaxing, they are useful; food, healing cuts, smell sensation and they need to be taken care of. plan which plants are integrated into the concrete layout based on skateboarder feedback (aloe vera, candeluna, mint, marijuana, etc).</p>
<p>Lights</p>	<p>Lighting the skatepark is a terrific way of extending the facility’s hours. In warmer climates, skateboarders will be grateful for the opportunity to skate after sunset. Lights should be configured to warn park patrons that they will turn off so that they can stop skating. Having the lights turn off abruptly and without warning can put park users at risk. There have been recent advances in LED-based facility lighting provide better lighting at lower expense than fluorescent, halide, or incandescent solutions.</p>	<p>The consensus was that our participants felt that lights were seen by skatepark developers as a “luxury item” but should really be essential. The topic of lights can be a catalyst for public debate, particularly at skateparks built near residential areas. Oakville conducted a municipal lighting study for sports fields in the city and identified that in certain areas, lights are a health and safety measure (Oakville, 2010). When the skatepark is lit up, skateboarders can see the park and their surroundings more clearly, making it safer and more enjoyable to skate.</p>	<p>Most of the existing skateparks and skate spots in Toronto lack a reliable light source. The skatepark study identified an urgent need for lights at Canada’s largest outdoor park, Ashbridge’s Bay and they will be installed summer 2020. Cost was a major factor in the provisioning of this and may have played a role in why it took so many years to get done. Our group said they want to see new and innovative lighting options at their skateparks and skate spots (renewable energy, LEDs, etc.)</p>

Table 5: Co-Design Summary Table

<p>DIY/Built by Skaters</p>	<p>Creating a ‘social enterprise’ or a community-run space creates large potential for other activities such as; a design studio, a quiet zone, community garden, kitchen/food, and socializing which according to our research greatly affects the success of a skatepark. Having space to engage in activities <i>other</i> than skateboarding will encourage skaters to get involved in brand new ways that help sustain the space.</p>	<p>DIY allows people to make meaningful connections through activism. Assemble and organize the passionate people in your community. Everyone has something valuable to offer the project and it’s important that you are able to organize them accordingly. Skateparks are safer when they are built by skaters (Tony Hawk Foundation). DIY gives them a chance to implement ideas into the architecture that wouldn’t be there otherwise (No Kinks, Flatbottoms, No Overcrowding, 3-4ft of Pushing Room, No Ledges Over Your Bellybutton, building Edges that Grind, Pump-able Hips, etc. (Daskalov, 2015)</p>	<p>Build a team and excite your local community. Ask the experts (skaters) directly what they want and how it should look and feel. Discuss the unique issues in your individual community and how you can address those needs. With that you will gain important insights and value for your development so you can invite skateboarders to be apart of the vision and help carry it out. Here are affordances of DIY that came from our co-design;</p>
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Ideate

Engage the group in activities that will facilitate innovative and inclusive pathways to your goal. Discuss and sketch out concepts that address the co-design objective. Perhaps your skatepark needs to address issues of litter, the focus of the activity could be designing compelling way-finding symbols or slogans that orient folks to the nearest trash cans. In Co-Design Session #2, Skatepark Safety and Enjoyment we revisited the remedies and their potential outcomes and mapped this data out into skatepark design principles which informed our early prototypes. After the creative workshop we engaged the group in a discussion around “ideal park” design ideas. Themes were observed when mapping the data such as, concrete, smooth level changes and hybrid-style skateparks. Some felt that skateparks should repurpose everyday materials. Everyone agreed that an ideal indoor skatepark needs a rest area and/or kitchen space. 90% of respondents felt that skateparks in general need more gardens and green space. The topic of building a community garden near the skatepark came up repeatedly. The members of the skate community see value

in gardening and green space. Growing food could help nurture and care for the space and is a creative way to give back. They reported that flowers can help to beautify the park, grass and shrubs could be implemented into the park or as edging to create a natural obstacle. Our participants felt that skatepark designers should consider using flat space in new creative way. The group discussed using inclusive way-finding such as colored and textured paths to help create zones in the park that encourage safety. Last but not least, skateparks must be beginner-friendly.

Prototype

Build an example of a solution. Take your ideas and actualize them into a low-fidelity prototype. A prototype is defined as an early sample, model, or release of a product built to test a concept or process. You will make many of these over the course of your DIY development. This process of inclusive design is supposed to bring common issues and themes to the forefront to discover where ideals align. The power plant is an amalgamation of all three co-design sessions. We addressed skatepark sustainability, safety and obstacle meaningfulness in one design. It is completely unique and has not been made before which offers a learning opportunity for everyone involved.

While this co-design did not have the capacity to design a whole skatepark, the co-design group created an innovative feature for a skatepark that addressed many of the criteria that they had identified and important design issues they wanted to solve.

The Power Plant: An Inclusive skatepark obstacle prototype

After in-depth discussion and activities around ideal parks and meaningful obstacles, our co-design focus group created an accessible, sleek, skateable planter called the Power Plant. It is a one-of-a-kind obstacle that produces a visualization of kinetic energy produced by skaters in order to showcase plants in light. The planter is adjustable, changeable, movable and unique to any current structures available. This kind of design appeals to skaters because of sleek edges and cool aesthetic but also due to its design and use. Skateboarders will be thrilled to skate a sanctioned planter with edges sides made specifically for skating.

Water intensive plants will assist in rainout management but also create a beautiful visual for skaters and non-skaters alike. The co-design discussions established that drainage is a common issue for skateboarders and was identified on our list of design/construction issues. Our participants described using squeegees and other found items to remove water from the skatepark after rainfall. Could integrating a simple hydroponics system into the Power Plant could give good use to this wasted water? Rainwater keeps the plants hydrated and skaters generate and give them light. Ultimately giving new life to the space. Imagine an entire skatepark that is self-sustained through using strictly renewable energy.

GREEN SPACE

The plants bring a symbolic meaning to the act of skateboarding. The integration of plants speaks to the lack of green space in existing parks but can also be seen as a metaphor for growing through the cracks in the concrete. By involving local skateboarders to contribute by taking care of the plants such as, planting new seeds, watering, or plucking of weeds; the obstacle brings an emotional connection with skaters. As a result, these plants change the behavior of skaters making them more conscious about how obstacles should be treated. These behaviors could afford safer and lively parks that are maintained by the skaters themselves. The group shared that taking the time to plan which plants are integrated into the obstacle should also be based on skateboarder feedback (Aloe Vera, Candeluna, Mint, Marijuana, etc). They reported that are aesthetically pleasing, the scent is relaxing, they are useful (food, healing cuts, smell sensation) and that the green space will inevitably make the skatepark more inviting and can actually serve a purpose to the greater community. The location will also drive landscape elements such as garden space, shrubbery and other green features compatible with your space.

BEGINNER FRIENDLY

The intention of creating this obstacle was to design it in a way for skaters of all levels to be able to engage with obstacle easily and safely. The a-frame design makes it an accessible transition for any beginner to ride up and down, kick-turn or ride across. The power plant also includes a flat bar to appeal to intermediate skaters who want to grind.

LIGHTS

When skaters ride this obstacle, LED lights are activated and help to facilitate the growth of the plants beneath it. The piezo embedded technology is placed strategically to generate those most voltage by positioning them in areas skaters will constantly be impacting. As previously discussed, illuminating the obstacles in new and creative ways can create safer and more enjoyable skateparks.

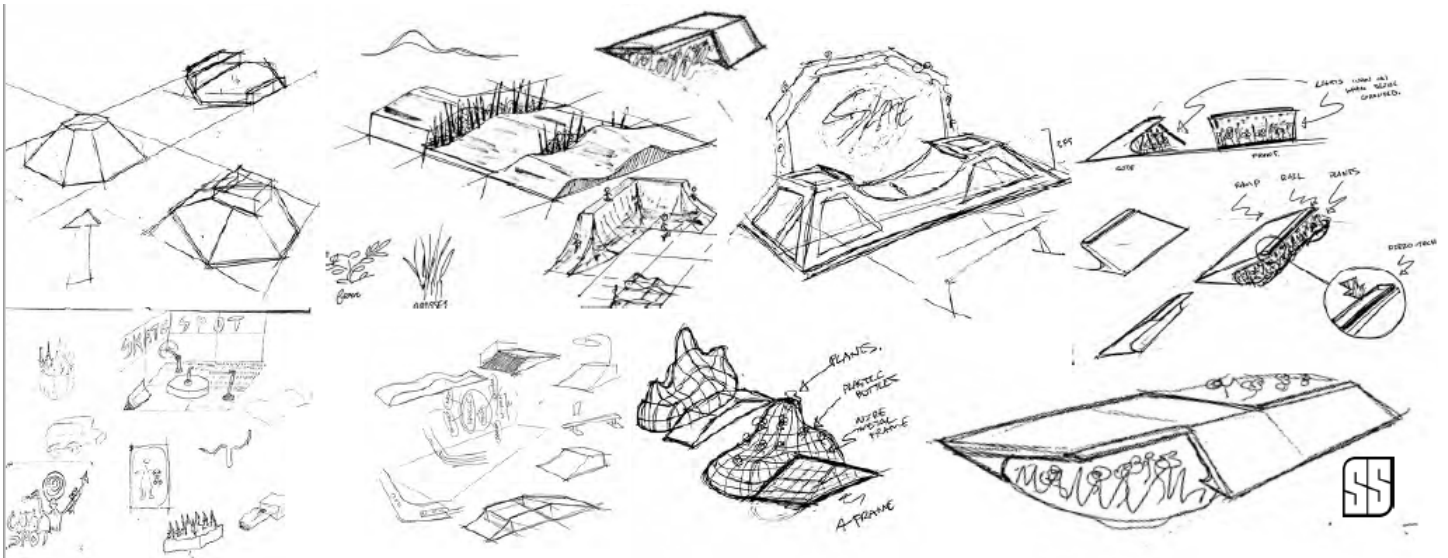


Figure 25: The Power Plant Concept Art

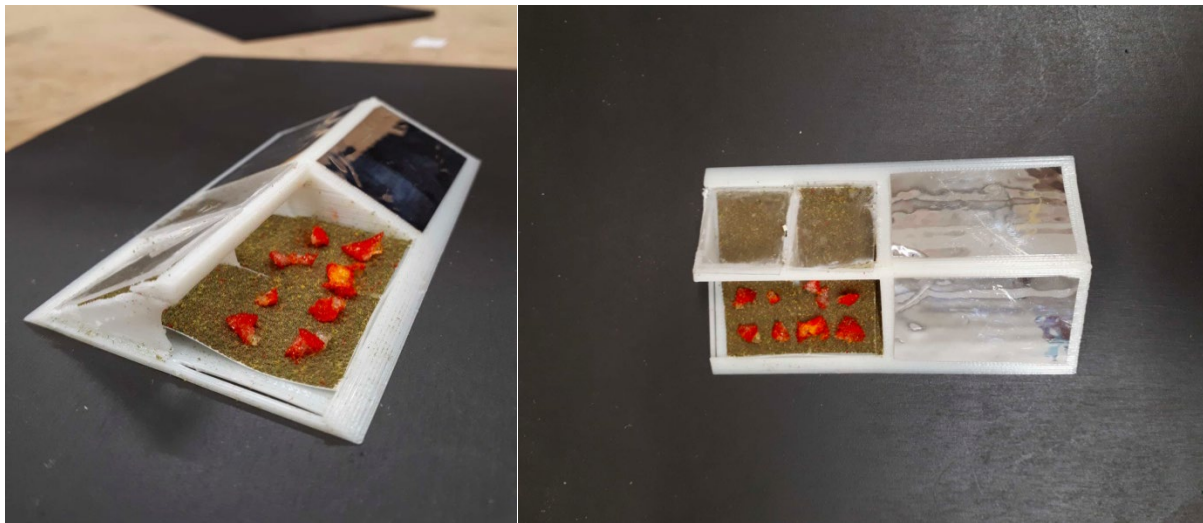
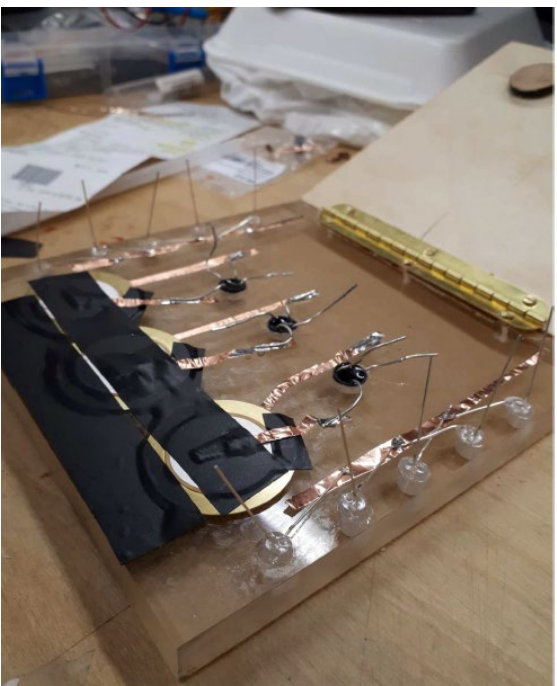
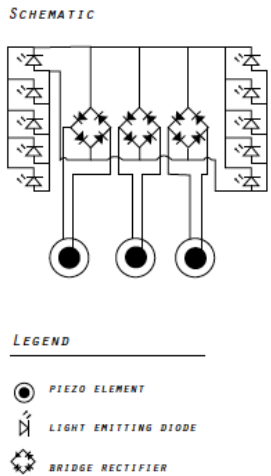


Figure 26 & 26a Prototype #1 "Power Plant 3D Print"

First we made multiple sketches of a possible design for our planter (see figure 25). Once we decided on an inclusive and aesthetically pleasing transitional obstacle design, we created a 3D image using Rhino. Next we printed the 3D image on a Lulzbot and added the piezo pad and artificial plants (see figure: 26 and 26a) for a scaled down model of our idea. Happy with the way it looked, we wanted to test the technology in

real time so we built another prototype, a handheld a-frame. This device “A-FRAME PP-LED” generates electricity from the amount of vibration or compression on the pad. By using piezo-electric elements connected to a bridge rectifier, the electricity generated travels through the copper tape and gives light to the LED. The harder you compress or vibrate, the more voltage is generated, thus more electricity. This pad can generate up to 30V and more per impact (See figure: 27

Case Study 1: Kinetic Energy from Skateboarding



and 27a).

Figure 27, 27a: Prototype #2 “Power Plant Kinetic Energy Harvesting Pad Prototype” PPLED A FRAME, 2019. Acrylic, Wood

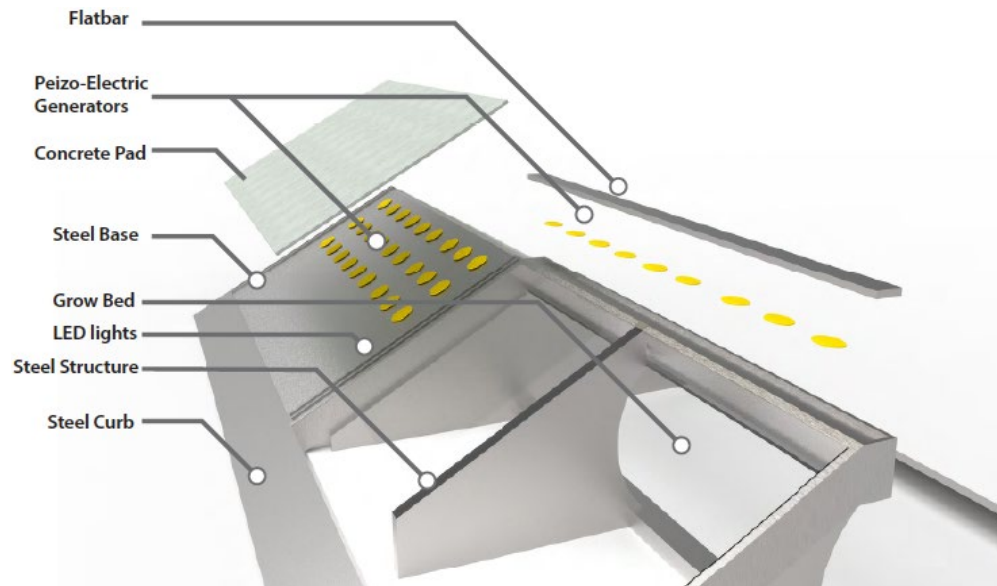


Figure 28 below: The Power Plant Conceptual Model



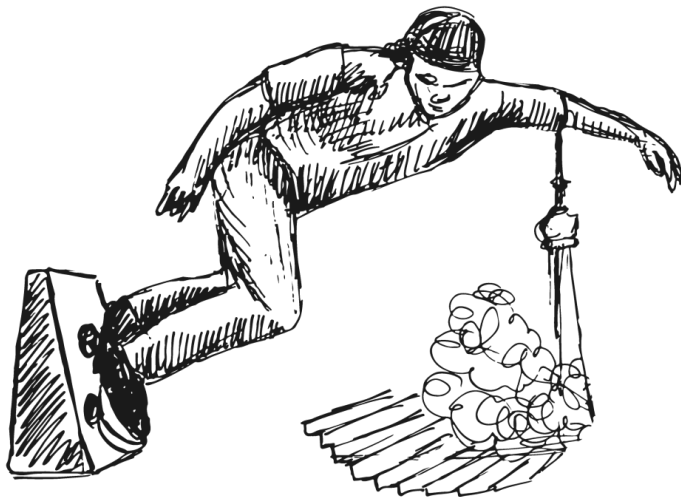
Figure 28a: The Powerplant Conceptual Model with Skaters Designed at OCAD

Test

Try out your prototype in controlled real-world scenarios; hit the drawing board and prototype again. This iterative design is essential to the process. Design, build, test, repeat. Once you are satisfied with the results and you prove that your solution is a successful remedy to the problem, you can now move onto the implementation stage. This particular stop went beyond our scope of research for this paper but it is most definitely the next stop in the overall process. The prototype will be scaled to size and built so that a skateboarder could try it out, deconstruct and rebuild it to perfection. Here you will receive valuable insight on your design from your test subjects, this feedback is very valuable to the progression of your prototype.

Implement

Integrate your product or system into the real world. If done correctly, this implementation should have a substantial impact on the issue defined earlier in the process. Have a measuring method in place (user feedback, reviews) As new information arrives, always remain open to starting the process over from the beginning.



Chapter 5

Initiate

5.1 Initiate

You have learned the basics from observing, skating and reflecting. You have a better idea of what works and what does not concerning the design of your future skatepark. Now it's time to put your theory to practice and put in some hours exercising your new talent. This chapter presents a process for actualizing a DIY skatepark and a demonstration of the process through a hypothetical design for a skatepark in the Toronto urban core.

5.2 Governance

Governance is the system of how the skatepark entity is created and how it makes decisions, provides the rules regulations, planning and accountability for the skatepark facility and organization. An important step in the development of a skatepark entity is establishing a decision-making body, such as a board of directors and officers with assigned roles and responsibilities who are elected by the skateboard community to make important decisions, negotiate on behalf of the skatepark, and have some legal authority and responsibility to do so.

5.2.1 Governing a DIY Skatepark

Skateparks can be governed by legally established entities such as a non-profit or private business but they often social enterprises established by community groups with a structure of decision-makers recognized by government and local businesses. Burnside Skatepark, identified in Chapter 1, is recognized as one of the best existing DIY skateparks in the world and a model for DIY skatepark governance. Since 1991, locals have built this transitional skatepark by hand and with their own funds. For decades, Burnside was the Mecca for world-class, extremely technical skateboarding. The park has faced challenges but persisted because skaters established a relationship with the city of Oregon which allows them to operate without governmental provision given they keep the skatepark safe.

Their website reads, “Burnside is public, free and has no pad requirements. It is also subject to periodic review by the city. Burnside is not permanent. The city can, at any time, with excuse of public nuisance, condemn and destroy it. Park on the street only, not in adjacent private parking lots. Please respect yourself and others.” (Skate Oregon, 2016)

Chris Bredeson, one of the Burnside Skatepark founders writes in the Burnside Project Blogspot, “By being a non-sanctioned park, we are at liberty to destroy and rebuild as we see fit, without approval from any city organizations. It is how Burnside was started and it is how it continues to thrive” (Burnside, 2019). In

2016, an apartment complex called the "Yard" was constructed to the west of the Burnside skatepark. There was a lot of speculation on what would happen to the skatepark. In the end, Burnside did not suffer a loss of space but a loss of natural sunlight. To compensate for this, Yard's chief developer, Jeff Pickhardt agreed to install lights for the skatepark (Booker, 2016)

Currently, skate groups in Toronto, Canada depend on the Toronto Skateboarding Committee to represent and negotiate on behalf of skateparks in the Greater Toronto Area. Their team consists of 12 male and 2 female adult skateboarders hailing from the East York Region. They encourage all skaters to get involved in events and meetings. Migs Bartula is the Chairman and there are 5 other executive members who ultimately make major decisions with Parks and Recreation and other government bodies concerning the existing outdoor parks in the city. Their connections both within the skateboarding community and the government bodies such as Parks and Recreation and City Councilors are supposed to promote inclusive and transparent governance of public skateparks. When they first began in 2015, the meetings, held at city hall, were frequent and open to the public. There hasn't been an open-forum style meeting like this since November 23rd 2017 (TBSC, 2017). Many of their projects have been carried out rather quietly with less and less involvement with the public. Thanks to the TSC, the city has made some major improvements in outdoor parks, but with less community consultation there has been less representation in the group and limited advice on decision making. Positive, consistent engagement with your user groups and others should be prioritized.

When forming your team have someone in charge of media and communications that is knowledgeable about your group bylaws and policies and ensures they are carried out on all of the platforms you choose to engage with over time. It is important to have someone on the board or decision-making body, who oversees how skatepark rules are communicated, revised over time and enforced. Compose a list of social norms such as a mission and/or value statement, rules of discussion, consultation and decision-making to be maintained such as inclusiveness, equality and equity. Ensure that all team and board members sign an agreement and accountability clause where they promise to uphold these standards.

Given the nature of an inclusive DIY project, your team requires long-term and short-term involvement from the community. Establish a set of agreements with all individuals who choose to be of service. Keep records of each person who volunteers their time and make sure they are recognized later on a larger scale. Your group will want to establish a legal entity such as a business, non-profit or social enterprise, as a method for entering legal contracts and agreements with others such as land use agreements, fundraising events that allow for tax deductions, acquiring liability insurance. Stay organized and delegate who has access to these files and when. Legitimize your group by registering as a business, non-profit or social enterprise.[GN1] To maintain an inclusive system, consult and engage your greater community along the way to address greater concerns that may affect the well-being of your future skatepark users. Ensure that these community members represent the wide range of diversity that exists there. Your local BIA (Business Improvement Association) has a wealth of information that will be useful to your DIY project. They have connections with local politicians and landlords in the area and also create opportunities for the larger community to meet, socialize and share resources.

An important way in which inclusive governance can be given shape is through multi-stakeholder ownership and direct representation in the decision-making processes (Schleifer, 2018). Besides having ownership and/or decision-making power, stakeholders may also have other opportunities to participate informally and non-structurally in the governance of a social enterprise. Participation can be achieved by creating an advisory body/committee comprising stakeholders and/or their representatives. This body is given the power to advise on, or veto, certain material decisions of the social enterprise listed in the bylaws of the social enterprise.

Finally, monitoring and information rights, for example in the form of newsletters or social impact reporting mechanisms, are vitally important for the proper functioning of stakeholder participation rights processes (Schleifer, 2018). Without these monitoring and information rights, stakeholders are unable to formulate an informed opinion or oversee the social enterprise's compliance with agreements reached and/or the social purpose as communicated (Colenbrander, 2017). Governance is inclusive when it effectively serves and engages all people; takes into account gender and other facets of personal identity; and when

institutions, policies, processes and services are accessible, accountable and responsive to all members of society (Global Affairs Canada, 2019).

5.2.2 Forms of Governance – creating an Inclusive Model

There are three main forms of legally recognized entities available to a skatepark community; private business (for-profit), non-profit (external funding) or social enterprise. The American Bar Association describes a social enterprise as a “mission-driven” organization. Both for-profit and non-profit social enterprise models apply market-based strategies to achieve a social purpose. Private businesses employ people, fulfill the needs and wants of their customers, and pay taxes. Charities perform altruistic and humanitarian services that would otherwise be performed by the government or not at all are not considered an option for discussion for a DIY skatepark in this MRP but may have application in some contexts. A social enterprise involves a disciplined community of people who are thinking about social impact every day applying strategic planning and management tools to social causes.

Social Enterprises

Creating a “social-enterprise” skatepark, compliments the goals of an inclusive DIY project. There is potential for diversified income from multiple streams (user contributions, fundraising, space rental, food service, clothing and skateboarding supply, lessons and workshops). Social enterprises will have to make group-led decisions which require and fostering a habit of inclusive principles such as; ensuring equal access to services and information, non-discrimination policies, voting, consultations and co-design practices.

Here are a few examples of existing social enterprise models:

- The Women’s Bean Project (www.womensbeanproject.com), employing chronically unemployed women in the manufacture of gourmet foods.
- Juma Ventures (www.jumaventures.org), operating businesses specifically to offer job opportunities to economically disadvantaged teens.

- Better World Books (www.betterworldbooks.com), collecting and selling books online to fund literacy initiatives around the world.
- Benetech (www.benetech.org), allowing people with print disabilities to legally download over 40,000 books and periodicals to be read as Braille, large print, or synthetic speech.
- Open Books (www.open-books.org), combining book donations, a retail bookstore, e-commerce, and volunteers to help support its literacy program for students of all ages.
- Harborquest, Inc. (www.harborquest.com), and its subsidiary, Civic Staffing L 3 C, helping low-income, inner-city workers earn a living while serving businesses that need

(Marc, 2012)

Social enterprise is considerably the most inclusive model for a DIY skatepark due to the fact that this kind of major project requires a diverse team of talented individuals working toward a greater good. The decisions around what is put into the skatepark would not be made by a sole individual, but rather a team of skateboarders from different skill levels that have unique desires and needs. Create a governing board that has a combination of stakeholders involved. Include parents of youth, educators, professional skateboarders and park builders, youth workers, city workers and local businesses as a part of your enterprise to ensure balance, harmony and equity.

Registered Private Business

Running your skatepark as a business or corporation is a very difficult but rewarding venture. There are thousands of privately run skateparks all over the world and very few of them are known on a national or even global scale. Your skatepark business will involve personal investments which could mean personal loss. As a business or business group, major liability and general responsibility falls on you. If you have the funds to build and carry out the project successfully, maintaining your consumer base will be the next big challenge. Your skatepark will have to offer something totally unique from what already exists to survive. The industry

is booming but customer loyalty is essential in making your skatepark survive Businesses are seen as a corporate entity that have an overall objective of making money. It is difficult to align skateboarding philosophies which are so anti-consumerist and anti-capitalist in nature with those of a skatepark business. Business skateparks are expensive and often have aggressive advertisements plastered on the walls or on the structures themselves and lack a sense of authenticity of street culture. A businesses main goal is to make sufficient return on their investment to keep running – this often means serving the majority or the aggregate population which can and will leave underserved individuals at a disadvantage to those that buy-in to the profits of corporations.

Non-Profit

A non-profit organization uses its earnings to operate. They have salaries and full-time staff but most of the funds should be used explicitly for capacity building and operational funds, not paying a high salary to their CEO. These groups depend on fundraising and donations and constantly experience unpredictable financial outcomes. Every not-for-profit has to maintain compliance with the provincial agency that regulates charitable organizations where it is based. Thanks to their tax-exempt status, not-for-profit organizations are not subject to most forms of taxation, including sales tax and property taxes. (Donations made to a tax-exempt, not-for-profit organization may also be tax-deductible for the donor. The American Bar Association suggests, nonprofit operating costs have been steadily escalating over time and philanthropic and governmental support has waned. The growth of the nonprofit sector has increased competition for increasingly scarce available charitable funds and the demand for nonprofit services has expanded. It is not recommended to operate an indoor skatepark this way. Skatepark need a consistent budget with clear expectations around cost and non-profits do not provide that kind of stability. The longevity of the skatepark is important to its creation and needs a form of governance that supports this need through and through.

5.3 Site Selection

5.3.1 Criteria and considerations for site selection

There are several aspects that must be addressed when considering a skatepark location such as size, soil condition, property by-laws and such. One of the most important aspect of selecting your skatepark site is its *neighborhood compatibility*. How well does a skatepark facility attract the skateboard users from within and outside the immediate neighbourhood, compliment or improve the existing area? For the purposes of explaining this concept we will reference a commonly used term, “NIMB” (not in my backyard). These sentiments come from a need to address and consider inclusivity issues. The irony of NIMB is that it can affect skaters but skaters can also perpetuate this attitude. Sometimes, people will address their dismay about a skatepark due to the common misconceptions about them. As explored in earlier chapters, many people unfamiliar with skateparks anticipate that they will be “noisy” and invite “rambunctious youth” into the neighborhood. These views are myopic and do not see the larger community value of skateparks (Public Skateboard Guide, 2016). The solution to dealing with these kinds of people is to promote positive skatepark advocacy to educate and share how skateboard can contribute to the community. Bridge the social gap between your DIY skatepark and the outside community by creating space for them to come together and engage in important discussions. There must be an awareness of existing space and how your skatepark will impact those around it and ways for them to share and express concerns

Things change. Boards change, shoes change, tricks change, skaters change. Change is the manifestation of time, and time has shown us that skateboarding is here for as long as we—as individuals and as a community—create it into existence. Although much of the world is trying to stunt skateboarding growth, there are enough rogue individuals out there continuing to make it happen. Whether it be by building ledges at a remote spot just east of downtown LA like Jason Hernandez, constructing mini-ramps in our backyards like Mikey Taylor, or buying buildings and constructing skateparks inside them like ourselves, we continue to grow because our will to skate and our will to survive is just that strong and because the only alternative is to quit and die. But we at the Berrics believe that life was made to live out of, not die out of. There's nothing special about dying. Anyone can do that. Push the future. — (The Berrics, 2019)

Journeys to play: planning considerations to engender inclusive playspaces is a study that demonstrates how many older children and their families avoid going to public outdoor spaces as a result of

physical barriers getting to, and into sites, and the impact this has on the experiences of children. The findings reinforce the importance of considering a site's location in relation to its intended purpose, and the affordances for people getting to and entering sites. In relation to planning and prioritization and selection of sites for playspaces so that they can be inclusive for all children the recommendations in the study include thinking about the distance to be travelled and the path of travel to the playspace. Specific to playspaces, this means professionals thinking more broadly about the diversity of children and families inhabiting these spaces and their needs with regard to particular environments. Social-justice thinking and awareness of body-space diversity is particularly important in creating inclusive environments. This is because sociocultural norms held about users' or bodily forms can underpin practice, thus maintaining and perpetuating the exclusion of particular subgroups of children in playspaces (Stafford, 2017).

5.3.2 Lot Size

As discussed in Chapter 1, there are 3 main types of skatepark size. Skate spots, Neighborhood parks and Regional Parks. Indoor skateparks can be as small as a 3 ft. mini ramp in someone's living room as we saw with *Soybomb* and as large as the X-Games Skatepark which is held at in the 1.75 Million square foot U.S. Bank Arena in downtown Minneapolis. Be realistic when scaling the size of your park. Investigate how many skaters your DIY will serve. Address the size of the overall and orient your required lot size around that. There are little to no vacant lots in most urban areas so the size of the lot is often relative to what already exists in the area. Indoor skateparks are often placed near commercial and industrial developments or are built in underutilized city-owned buildings. Outdoor parks are often placed in public space that requires revitalization.

Commonwealth Skateboarding is a gritty 4,500 square foot DIY indoor concrete skatepark that was built in 2011 by Jennifer Sherowski, Lance Normine and Evergreen Skateparks in an old stone-cutting warehouse just off of Hawthorne Boulevard, in the heart of Southeast Portland. In 2013, footwear designer Matt Collins wanted to open up a sneaker-centric skate shop in Portland and had the opportunity to acquire

Commonwealth. Since then, with a very small budget and dedicated community members Matt and his friends remodeled the storefront and gallery space into a full-service retail skate & sneaker shop .Their website reads, “Commonwealth is a labor of love that is maintained and supported by the skaters and locals who call it home.”



(Figure 29: Commonwealth skatepark, *The skatepark features a double pocket bowl, one with pool coping, one with steel coping. We have a mini ramp, bank and small street section with a mix of rails, boxes and pole jams.*

5.3.2 Zoning and neighborhood use compatibility

Choosing a site requires understanding the available infrastructure such as; electricity for lighting, water and sewer (for washrooms or other amenities). Site infrastructure is a costly element so for a DIY skatepark, it is important to identify the limitations early in the site selection process and determine how the group might address these matters. If the site is privately or government owned, the owners may contribute to the cost of infrastructure if the case can be made that these improvements can support a positive long-term experience, attract users to the site that might support neighbouring business, reduce unwanted activities, and if the skatepark is unfortunately not successful, can be used to attract another tenant or sale of the property in the future. The best way to do this is to have a team with members in charge of specific, dignified roles. Site services will require the use of a licensed engineer, however typically skateparks do not require a licensed architect as they do not involve the construction of a habitable building of more than 600 square metres. In the DIY scenario, someone on your team will need to research zoning bylaws, provincial building codes and work with a city official to oversee and address your design and construction issues and concerns.

It is also important to have someone connect with the local BIA (Business Improvement Areas), shelters, community centres and any other neighbourhood centres groups to ensure that they know your plans and how it will and won't affect them. Use the research to support positive discussions about their inquiries about noise control, litter, hours of operation, supervision and safety. Show the residents and business leaders of the neighborhood why you chose this area for your skatepark and how with their collaboration and support it can create a broader, positive impact.

Selecting a skatepark location that tells a story is important to its users has been shown to foster a sense of ownership and responsibility within the community. Skateboarders value locations that are inviting and supportive. It's no surprise that many existing skateparks are built beside places where people like to gather. Toronto's outdoor skateparks are often located beside school yards (Lawrence West), community centers (Dunbat Skatepark), waterfronts (Ashbridges Bay and Underpass) or off park paths (Westlodge Skatepark, 8th Street Skatepark).

5.3.3 Central and Accessible

Toronto is an amalgamation of 6 historic boroughs. North York, Etobicoke, York, Toronto, East York and Scarborough. All areas of Toronto are accessible by the public transportation authority, the Toronto Transit Commission, commonly referred to as the TTC. Research participants shared that in the winter months when outdoor skateparks are closed, they have to commute to remote areas to skate. In Toronto, the only existing indoor skateparks nearby are in the GTA/Greater Toronto Area in places outside the city centre, such as Scarborough and in the adjacent municipality of Mississauga, where the commute is upwards of an hour. In addition to paying more for transportation, park users are expected to pay a drop-in fee every time they want to visit. Cities like Newmarket, Ontario and Nelson, BC in Canada have turned indoor skateparks into multi-purpose youth centres that don't depend solely on user fees to operate and are funded primarily by the municipal government. (Nelson Youth Centre, 2019 & Newmarket Youth, 2019).

The historic City of Toronto, prior to amalgamation, comprises what most Torontonians consider the city centre and is primarily comprised of “downtown streets”. The population of the entire city is 5,429,540 and 2,002,319 of them (37%) of the people are below the age of 29 (Statistics Canada, 2016). Toronto as seen a flux of condominium development over the past 10 years and has battled gentrification in some of its most cherished areas for modest income families such as Regent Park, Parkdale and Eglinton West- neighborhoods celebrated for their strong communities and cultural diversity. These areas have suffered the loss of multi-generational, family owned businesses, community centres, parks and other cultural hubs for its inhabitants. Some people lost their businesses and homes during this redevelopment.

Skateboarders favor public spaces as they are generally in a central location, have smooth surfaces, and are accessible. There is a misconception that placing parks remotely will minimize concerns and conflict with the public. It is more important when choosing a location to make sure public and private interests are addressed at the same level.

5.3.4. Permanence

One of the goals of the skateboard community is to gain recognition of their status as a welcoming member of the community by establishing skateparks that have permanence within community neighborhoods.

Burnside Skatepark is the longest running, sanctioned and public DIY skatepark in the world.

For the past two decades, the skater's sense of ownership has been one of the key factors that has both protected the spot from city bulldozers and expanded its footprint beneath the dank and dirty eastern underbelly of Portland's Burnside Bridge. But there's more. Ever since that fateful night in 1990 when Bret Taylor, Chuck Willis and Osage Buffalo poured the first renegade lump of concrete joining the pitted asphalt to that monolithic slanted wall, the skaters have gained some unlikely allies .(ESPN, 2010)

Every year on Halloween, the skaters of Portland, Oregon, throw a big birthday party for Burnside Skatepark (ESPN, 2010). October 2020 marks Burnside's 30th anniversary.

Having a lease or land use agreement is the most important element in your planning phase. It is recommended that a legal professional oversee the negotiation and drafting of your user agreement with a landowner. Make sure your landlord understands your plans in depth so provisions for use are included in the agreement. This may or may not include providing architectural/landscape/engineering documentation. It is important for you and the landlord to understand the relative responsibilities and timelines for the parties in the agreement in relation to your DIY skatepark. Site use agreements may require that you share information such as financial projections and contingency plans for your project as part of the negotiation process. It is important to have provisions within the agreement that address if the skatepark enterprise does not go as plan or it fails. Including provisions for restructuring the agreement or the terminations of the agreement is an important aspect of entering into such agreements.

To create confidence in your stakeholders, participate in other park builds and volunteer at skateboarding events. Take initiative and help other skate groups that may need it. If your skatepark intends to be a permanent facility and the landlord has no prior experience with skateparks, your team will have to demonstrate the capability to carry this project out successfully.. Keeping everything organized, communicating well, coordinating others is important but your team may also need some training on finance, meeting minutes, yearly reports, tax auditing and more. Sign up for a skills building or capacity building grant such as Business in the Streets.

5.4 Financial Expenditures

Because so many DIY skateparks are created in non-sanctioned locations, developed through building, breaking down and rebuilding over a period of time, and with limited financial tracking, there is limited guidance as to how to budget for a design and construction of a DIY skatepark, The average price to

design and build a skatepark is \$45 per square foot. Skateparks rarely are more than \$60 per square foot, and can sometimes be as low as \$25 per square foot. (Public Skatepark Guide, 2019)

The price can and will fluctuate based on your methods. DIY Skateparks are cost efficient when working with a large labour team and can be costly with minimal resources.

The Public Skatepark Guide is a commonly referenced body of work supported by the IASC (International Association of Skateboard Companies). (Public Skatepark Guide, 2019). The Public Skatepark Guide identifies two distinct types of financial plans needed to develop a skatepark development. One financial plan is for the design and construction of the facility. The other financial plan is for maintaining and operating that facility over a period of time. Construction, for the average skatepark, will include the cost of development charges including real estate commissions, legal services, financing charges, municipal fees, construction costs, and design services including architecture and engineering services.

$$\text{Square-foot size of skatepark} \times \$45/\text{sf} = \text{Skatepark Creation Cost} \pm \text{Project Cost Factors}$$

At the average cost of \$45 per square foot, an 8,000 square foot neighborhood skatepark will be \$360,000 and will serve a neighborhood of about 25,000 residents. A 16,000 square foot regional skatepark will be \$720,000 and will service the immediate neighborhood and attract patrons from the region. As a reasonable starting point we'll use \$450,000 for a 10,000 square foot skatepark. If you plan on creating a Niche park with unique elements, it might be worth using \$55/sq.ft. as your base. If you have designers, top of the line materials and contractors to help, a top of the line skatepark will cost your upwards of \$65/sq.ft. The table below demonstrates this difference in cost.

Table 6: Indoor Skatepark Creation Cost (Public Skatepark Guide, 2019)			
Level of Design	Average	Niche	Top-of-the Line

Table 6: Indoor Skatepark Creation Cost

(Public Skatepark Guide, 2019)

Indoor Skatepark Size	\$45/sq ft	\$55/sq/ft	\$65/sq ft
8,000 sq ft	\$360,000	\$440,000	\$520,000
10,000 sq ft	\$450,000	\$55,000	\$650,000
16,000 sq ft	\$720,000	\$880,000	\$1,04000

There are enumerable factors that can influence the cost of creation such as;

Soil Condition

Sand, bog, and clay soil can dramatically increase the cost of construction. Poor soil conditions result in settling and compaction during and after construction. This can cause cracks and breakage in the final concrete skatepark. When soil conditions are poor, expensive construction techniques must be used to prevent cracks from forming. In industrial areas, pollutants in the soil can be a concern. Environmental regulations often require that any project that unearths this soil must replace it or cap it with “clean” dirt. The presence of contaminated soil can raise the cost of skatepark construction.

Adjacent Construction

Skateparks that are built within the context of a larger park development can cut costs by sharing heavy equipment and other resources.

Amenities

The cost of creating a skatepark will include all site improvements associated with the skateboarding facility. The path leading to the skatepark, fence, benches, water fountains, restrooms, lights, and immediate

landscaping can all have a major impact on the cost of building the park. (A restroom alone can easily double the cost of the facility.) Sites that already have restrooms, lights, paths, and other amenities are going to be less expensive to create skateparks on than sites with no current improvements.

Design Constraints

Some sites have specific design constraints that must be addressed. Perhaps the location is home to old trees that must be preserved. The skatepark must be designed around these fixed elements, and that can add cost to the project. Most design constraints reflect community priorities and/or the preservation of natural resources.

Design Details

Some skatepark structures cost more to create. Overhanging elements such as cradles and full-pipes are more expensive than simple structures like ledges and flat banks.

Distance to Resources

There are two main requirements for building skateparks, and they both cost money. You need qualified people to design and construct it, and you need construction materials. Both cost money. Many professional skatepark builders will bring a small number of specialists to a project and employ local builders to help round out the crew. (Not everyone on the construction site needs to be a specialist.) Local contractors are less expensive than bringing specialists from outside of the region because they are generally paid less and don't require housing arrangements. The distance to available construction materials can also be a factor. Importing cubic yards of granite to a region where granite isn't readily available is going to add cost, for example.

Drainage

Skatepark bowls require drains so that rainwater doesn't pool at the bottom of the structure. The drain must be connected to plumbing that leads to a sump or a main waste-water line. This adds expense to the project. Street plaza skatepark designs, because they lack bowls, don't require plumbing and the water

can “sheet drain” off the sides of the facility. (A subtle grade in the flat concrete moves water to the sides of the park.) Sheet-draining is generally less expensive than plumbing.

In-Kind Donations

A great way to reduce the cost of a skatepark is to have construction materials donated directly to the project. Concrete, rebar, and heavy equipment can be donated, among other things. Anything that is donated can come right out of the skatepark builder’s bill. Consult with your skatepark designer and/or builder before seeking in-kind donations.

Site Preparation

Some skatepark designs and locations will require more site preparation than others. Projects that require lots of grading and earth-moving, or that have current structures on them that need to be demolished, will be more expensive than projects that don’t.

Size

The larger the skatepark, the more material and time it will take. Not surprisingly, size is the most significant factor in estimating the cost of creation (Public Skatepark Guide, 2019).

5.4.1 Capital Funding

Once you have established why the location is the best place for your skatepark, the next step is to establish a portfolio of your site. Call the city and inquire about land ownership or ask a real estate agent to do a property lookup in their database. A well planned site proposal, collaboration with locals and a good business plan could entice property owners to allow for a land use agreement or long-term lease. Your DIY indoor skatepark requires site and property financing (purchase or lease for example). It will also incur construction costs that would include site servicing if required and design of surfaces and features.

An important element of your financial expenditures is your capital costs. Skateparks on leased land or in leased buildings will operate under a monthly lease agreement or long-term land use agreement that consists of a contract that depicts how much you will be paying for the space, at which rate and for how long. If your property has an existing structure, falling apart or abandoned, demolition and construction will be necessary to have a professional architect or engineer assess the site or building to ensure usability. These professional services and remedial actions will affect your costs dramatically. The initial and more permanent costs of an indoor skatepark include: construction and tools, labour costs, insurance, safety management, utility installation, alarms and locks, fencing and window installation, plants and grass, large concrete and wood obstacles, lights and electricity, heat and cooling, furniture and flooring.

Long-term and essential operational costs include utility bills, indoor and outdoor maintenance, security, event promotion costs, programming expenses and employee wages. Operational Costs are just as important as your capital expenses and should be considered equally as important when planning the financial make-up of your skatepark. Consider how a DIY skatepark could save dramatically on these expenses. A large team of dedicated people volunteering their time at a progressive rate will be difficult to plan but very cost efficient.

5.4.2 Operational Costs

Once you have established why the location is the best A DIY skatepark cannot run without an incredible team of committed, paid and sometimes volunteer individuals. Skateboarders are happy to lend a helping hand in outdoor parks where every man is for themselves but creating an indoor skatepark means being accountable for others within the space. Your team should be paid for their hard work but most importantly they should be trained on dealing with community populations of various ages, what to do in times of crisis and they should know exactly where to go and what to do in case of emergency. This kind of knowledge requires in-depth training and awareness. Operational costs should include reaching out to local advocacy groups that specialize in educating your team in areas such as equity, fairness, consent, sportsmanship and conflict resolution. Funds from memberships, sponsorships, grants, day camps, sales of merchandise, lessons, fundraising events, other. The skatepark entity should also hold reserve funds for

addressing major maintenance issues over time. These are funds collected and earmarked for the payment of replacement of features or services in the future.

The financial plan is the backbone of your skatepark's success. Pitch to venture capitalists who see the value in your project and show them the potential ROI (Return on Investment). Our skatepark is projected to cost anywhere from \$800,000 – 1 million dollars. We intend on seeking major investments to supplement the initial cost, receiving government grants and fundraising amongst established skateboarding brands and companies to help pay back interest.

The beautiful thing about building a skatepark from the ground up is you can implement as many or as little miscellaneous features as you can afford. Creating a multipurpose venue creates a whole new opportunity for operational funds. Our group has decided to implement a stage into our skatepark design that groups can rent outside of skatepark hours. This stage can host a yoga or dance workshop and other movement oriented groups. Organizers across the city would jump at the chance to host a creative event with a skatepark as the backdrop. The space can be rented for live concerts, parties, private events and much more. We will charge each group using a sliding scale and cost will be determined based on factors such as expected capacity, time of day, cover charge, security, etc.

Ask your local banks that support youth and recreation if there are funding streams you can apply for. Chances are you can seek sponsorship from top companies, especially if there is a Unique Selling Point or a very obvious Value Proposition. In our case, we have identified the need for a permanent indoor skatepark facility in the downtown core that serves inner city youth. Companies want to know how much income you can generate and if there will be a return on their investments. Check the web for the various streams of Municipal, Provincial and Federal grants that you can apply for. And last but not least, be well connected with the skateboard brand reps in your community and leverage their experience and insight on potential collaboration

Our fixed costs include rent/lease/ownership cost, property tax, salaries and on-going maintenance. There needs to be a direct source of income for these costs as they are imperative to the success of our

skatepark. Some variable costs include materials, labour, aesthetics and income. Have a plan in place to establish what your expenses are and where the money will come from.

5.5 Renovate and Rejuvenate

Show the stakeholders how your idea will not only rejuvenate that existing area and contribute to the community but how you plan to save on capital costs. Toronto Skate Stop believes that young people can reach their highest potential through the collaboration and co-design of a skatepark because it requires you to be a part of a team. As we saw with the Frontside Gardens project in the UK how the revitalization of a desolate, rundown property or space and the up-cycling of garbage and other raw materials can garner more support for your skatepark development. Establish connections with the local garbage site, metals and wood factories, the local transit commission, auto body shops – any businesses that may have a large supply of useful “waste”. Old damaged bike posts can be used for the coping on ramps and ledges, broken park benches are a great supply of waterproofed wood, damaged street and traffic signs could make for an artsy décor, and plastic bottles can be turned into beautiful windows and surfaces that emulate stained glass.

5.6 DIY Co-Design & Planning

Co-design is short for “co-operative design”, also known as “participatory design”. Co-design reflects “a fundamental change in the traditional designer-client relationship. The co-design approach enables a wide range of people to make a creative contribution in the formulation and solution of a problem.” This approach goes beyond mere consultation but instead engages citizens in specific activities to resolve a particular challenge. A key tenet of co-design is that users, as 'experts' of their own experience, become central to the design process. Co-designing a skatepark is intrinsic (intrinsic means; of its basic, essential feature that makes it what it is) because of who it intends to serve. Skatepark users are skateboarders and skateboarders are the experts on how the facility will best suit their needs.

The immediate benefits of employing a co-design approach include:

- Generation of better ideas with a high degree of originality and user value
- Improved knowledge of customer or user needs
- Immediate validation of ideas or concepts
- Higher quality, better differentiated products or services
- More efficient decision making
- Lower development costs and reduced development time
- Better cooperation between different people or organizations, and across disciplines

The longer-term benefits include:

- Higher degrees of satisfaction of, and loyalty from, customers and users
- Increased levels of support and enthusiasm for innovation and change
- Better relationships between the product or service provider and their customers

(Design For Europe, 2019)

In general, skateboarders will have a good “feel” for obstacle design but may lack the vocabulary, practical skills or experience needed to build it. That “feel” is really having an intrinsic sense of how to design something that will produce a specific experience. Direct user insight in the form of notes, drawings, collages, etc. combined with a professional mentor with expertise in architecture or construction will strongly encourage inclusive design principles. Users will describe what they imagine and the professional will determine the requirements and limits of each particular design element. This knowledge sharing is necessary and valuable to Inclusive DIY skatepark planning. Involve as many members of the community (non-skaters too) to your co-design to produce the best results. Inclusive planning is both socially progressive and cost effective. Implement the most important elements from the beginning to avoid expensive and potentially dangerous mistakes. Make real connections with your stakeholders by promoting transparent and open engagement each step of the way.

5.6.1 Skatepark Studio

In our co-design sessions, participants spoke about how having new, fresh features in a permanent indoor park would be exciting in itself but having the opportunity to create, build and contribute to it takes the park to a whole new level. The skateboarders are going to be the primary users of the skatepark and deserve to decide on how the space will serve their needs. To help a team of skaters design, build and co-create a park builds character and fosters community. Skateparks are safer when they are built by skaters (Tony Hawk Foundation). DIY gives them a chance to implement ideas into the architecture that wouldn't be there otherwise (No Kinks, Flatbottoms, No Overcrowding, 3-4ft of Pushing Room, No Ledges Over Your Bellybutton, building Edges that Grind, Pump-able Hips, etc) (Daskalov, 2015).

A skatepark studio would follow the Toronto Skate Stop mandate of "Skate, Innovate, Create!" Participants would gain life-long skills in carpentry, concrete forming, project and financial management. Group members suggested taking "green" skatepark to the next level by strictly using only up-cycled and refurbished materials. Our participants felt that designing "Green Skateparks" that are LEED certified and experimenting with renewable energy is the best way to go in terms of design principles and methodology. Building a park with this outlook and purpose will improve public morale and create a more inclusive skatepark environment overall.

5.6.2 Modular Obstacles

Modular obstacles in a concrete space are sustainable because they are meant to be moved around which creates new and exciting skateboarding experiences. If the skatepark users are able to change and adjust obstacles according to how they see fit, chances are they will use it more frequently. Skaters are all progressing at different levels and can't be expected to skate the same things. DIY parks should aim to be inclusive in that they are designed for the individual and not the "average skater". While one user may be advanced at skating transition style obstacles, it is unfair to assume that they are an advanced-level street skater too. Skateparks that offer a multi-dimensional skateboarding experience with varying difficulties directly influence growth. Having the option to "graduate" to something slightly more difficult in the same space gives the rider a certain level of comfort and familiarity.

Dunbat skatepark in Toronto is a concrete park (ice rink) with no permanent features. It is notoriously known for being a place where anything goes. With no regular maintenance schedule, poor park planning downtown skateboarders have been forced to get creative. Picnic benches, pylons, water barriers and other street furniture have been added to the concrete box to spice things up. This personalization can have a serious impact on a skater's progress. The novice skateboarders in our group shed light on how a simple adjustment at a skatepark can influence their entire experience for better or worse. For instance, an a-frame is a low-impact obstacle and is easy for beginners to ride up and down. If designed correctly, A-frames can be separated into two pieces creating a gap in the middle to offer more intensity to an advanced skater who may want to Ollie over large gaps

Innovation and experimentation is important to skaters. This is why skateboarders will travel across the country or even the world to skate a single spot. Obstacles and spots offer unique skateboarding experiences and their locations hold epic histories that make for excellent stories. "42% of the 2015 Skatepark Survey respondents indicated that they travel to other cities to skateboard. Of those, more than half visit other cities in the Greater Toronto and Hamilton Area, with Mississauga, Hamilton, and Brampton being the most visited. Many travel across North America to skateboard in cities like Montreal, Vancouver, Calgary, Los Angeles, New York, and Detroit/Ann Arbor. Some even travel internationally, to skateboard in places like Barcelona, London, Hong Kong, Paris, and Tokyo" (City of Toronto, 2016).

Our participants found making skateparks customizable attracts skaters of all levels and it creates a new and exciting learning experience for everyone.

5.6.3 Hybrid-Style Skateparks

We asked our participants to draw out their ideas before making mock-ups. With these documented iterations of sketches from over 15 skateboarders, we developed a portfolio of meaningful obstacle designs that Toronto skaters are looking for. Our insights tell us they want "hybrid" style parks, a mix of street and transitional elements.

5.6.4 Aesthetically Appealing

Designated art and graffiti walls would encourage positive artistic expression and get more skaters involved in beautifying the space. There was also a strong emphasis on new engaging obstacles, skateable art and a need for more green space integrated into the skateparks. Skateparks have rarely been considered environmentally friendly facilities. All skateparks promote a healthy, active and “green” lifestyle via people-powered recreation and require very little impactful maintenance making them strong potential assets for any community (Tony Hawk Foundation, 2012). Plant beds or raised planter boxes are useful devices for defining the skatepark’s perimeter. Skilled skatepark designers can use these green spaces as functional elements—to help direct traffic within the skatepark space, mark its boundaries, and also provide important natural drainage for rainwater.

Nature is a natural obstacle. Intentionally placing beautiful, traditionally un-skateable items such as gardens or a pond in the skatepark could dramatically the user experience and perceptions of the skatepark. Here are the reasons why according to our participants: plants look good, nature is relaxing, plants can be useful (grow food, healing cuts, smell sensation), they need to be taken care of) Taking the time to plan which plants are integrated into the concrete layout based on skateboarder feedback is an extra special approach for community engagement (participants suggested installing a waterfall, planting kale, aloe vera, candeluna, mint, marijuana, etc)

5.6.5 Inclusive Skateparks

Participants identified the wide range of skateboard users that our parks serve. We defined these groups as APE (All skaters, Pro skaters, and Everyone) to help distinguish each of their unique needs. The skatepark is made up of all skaters (novice to intermediate), professional skateboarders, and everyone (skaters and non-skaters (bystanders, chaperones, friends, etc). Following an in-depth discussion around ideal parks and meaningful obstacles, the research participants established the following: certain obstacles

designs were more accessible to all skaters. These elements include, ramps, hips, and smooth surfaces, lit up areas, skateable art and other elements. Washrooms and change rooms create a more age-inclusive and female-friendly environment. Beginners would benefit from a viewing area to watch, learn and take breaks. They could also benefit from textured way-finding (using bricks, rubber, marble, grass and other textures to determine zones of difficulty, speeds and the risk level of certain areas of the park).

Skateboarders come in all shapes, sizes and walks of life. If a skatepark is beginner-friendly it affords diversity, community building and inclusion. Participants from our co-design recall feeling intimidated and nervous about visiting their local parks as beginners. They reported that they are unintentionally pushed out of skateparks that are too crowded, cliquy, lack architectural flow and have no simple structures. They also spoke about the moral support that some advanced skaters will offer if you ask them/they notice you need help or advice. The sport is all about overcoming challenges and an indoor skatepark facility would offer long term space for skaters to continue learning and mentoring each other. As we saw with a few of the earlier case studies, skateparks around the world have been seen to reduce crime in neighborhood improvement areas. (Howell,2008 et al.). City officials in Portland and SanPedro have recognized grassroots cement projects as legitimate skateparks and effective crime deterrents (Vivonni, 2009).

5.6.6 Amenities & Skatepark Features

Washrooms are an on-going health and hygiene concern at skateparks. All participants in our study agreed that skateparks need accessible washrooms due to the amount of time they spend there and to encourage a gender-inclusive environment. Washrooms, rest areas, a clean water supply and potentially a kitchenette will be imperative to an indoor skatepark and treated as a major element of our design proposal. Every building needs electricity but what if you could find innovative and sustainable ways to power the space? Amenities will greatly impact your financial plans, implement them early on.

5.7 Operations and Supervision

5.71 Safety

As discussed in earlier chapters, it is crucial that you assess and reduce the risk of building a DIY indoor skatepark. It is the job of the design lead and a government-employed engineer to mitigate the risk of building certain obstacles as well as the general design of your building. These people are actually within reach! Find out who builds your local parks. Sometimes they are skatepark design firms, sometimes they are private city contractors and often they are carpenters and builders from your community! As it stands right now, in Canada there are no published standards for skatepark safety. Skateparks have been assessed on a case by case basis.

In Toronto locals such as Rob Poyner, Syd Patterson, Aaron Garrett, Build for Bokma, and the Toronto Skateboard Committee have been the brains behind many of the beautiful outdoor skateparks we love and enjoy. We will depend on these individuals when it is time to approve and sign off on our designs to ensure a safe and smooth skatepark is built. We will plan meetings with our local Parks and Recreation representatives to make sure we are doing our due diligence to build a safe skatepark.

5.7.2 Injury and Risk Management

Injury and Risk Management involves being proactive about the inevitable- mistakes. Mistakes are destined to happen with your skatepark and if managed correctly, it is how you will learn.

Design a new business process with adequate built-in risk control and containment measures from the start. Periodically re-assess risks that are accepted in ongoing processes as a normal feature of business operations and modify mitigation measures. Transfer risks to an external agency (e.g. an insurance company) Avoid risks altogether (e.g. by closing down a particular high-risk business area) Risk Options (Nicoll, 2019)

Risk Avoidance includes not performing an activity that could carry risk. An example would be not buying a property or business in order to not take on the legal liability that comes with it. Avoidance may

seem the answer to all risks, but avoiding risks also means losing out on the potential gain that accepting (retaining) the risk may have allowed. Not entering a business to avoid the risk of loss also avoids the possibility of earning profits.

Risk reduction or "optimization" involves reducing the severity of the loss or the likelihood of the loss from occurring. For example, sprinklers are designed to put out a fire to reduce the risk of loss by fire. This method may cause a greater loss by water damage and therefore may not be suitable. Halon fire suppression systems may mitigate that risk, but the cost may be prohibitive as a strategy

Risk Retention involves accepting the loss, or benefit of gain, from a risk when it occurs. Risk retention is a viable strategy for small risks where the cost of insuring against the risk would be greater over time than the total losses sustained. All risks that are not avoided or transferred are retained by default. This includes risks that are so large or catastrophic that they either cannot be insured against or the premiums would be infeasible.

The risk management plan should propose applicable and effective security controls for managing the risks. For example, an observed high risk of computer viruses could be mitigated by acquiring and implementing antivirus software. A good risk management plan should contain a schedule for control implementation and responsible persons for those actions. This stage immediately after completion of the risk assessment phase consists of preparing a Risk Treatment Plan, which should document the decisions about how each of the identified risks should be handled.

Mitigation of Risks often means selection of security controls, which should be documented in a Statement of Applicability, which identifies which particular control objectives and controls from the standard have been selected, and why.

Your skatepark can acquire a General Liability Policy and Errors & Omissions Insurance that allows your group to work with professional park designers and enter into a formalized contract. In general, skateparks use a skate at your own risk waiver in which adult users sign a law abiding agreement or minors receive consent from their parents. This kind of agreement does not make your skatepark exempt from issues

such as 3rd party negligence and does not relieve people from 3rd party liability for negligence or willful acts under the law.

5.7.3 Park Supervision

If the park is supervised, safety requirements can be enforced and daily inspections can be completed. In addition, participants could be required to sign a waiver and classes or seminars could be offered to beginners. Supervisors should have a good knowledge of and experience in skateboarding in order to judge the skill levels of the users. They should also be trained so that they are aware of all safety rules and operational procedures.

If the park is unsupervised, the equipment provided should be less difficult and easier to maintain. Appropriate, clearly worded warning signs must be posted and participants and parents will have to assume more responsibility for their park use.

5.7.4 Signage

Appropriate signage serves two purposes: prevention of accidents through warning signs and avoiding liability through disclaimer signs. Signs should be posted throughout the facility in highly visible locations. They should be written in simple language for the participants to understand. Use pictures to send a message – i.e.) no standing . When creating signs for a skateboard park, keep in mind the reading level of the users. Signs should be written in the most inclusive way so that all users can understand them. When the skatepark is not being supervised please consider ease of access to the following information; Hours of operation – if there aren't lights that allow for night use, clearly state when the park opens and closes. Warnings of any danger, including use of the facility r general property when it is wet or icy. Recommended use of protective equipment and advise the location of the nearest telephone. Adult supervision is recommended for children under the age of 10. If a park is unsupervised, appropriate, clearly worded

warning signs must be posted and participants and parents will have to assume more responsibility in park use (Cowan, 2012).

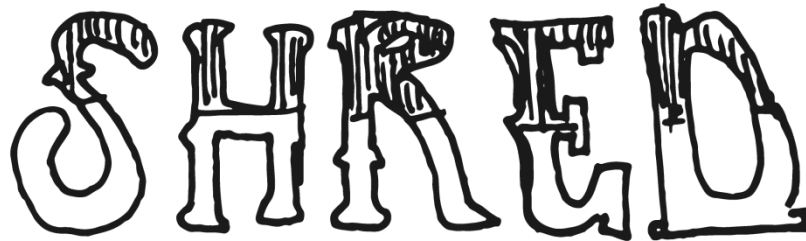
5.7.5 Inspections and Maintenance

The single most important aspect in the operation of a recreational facility is the maintenance of that facility (Cowan, 2012). Maintenance should be considered at the design stage, with equipment being designed to require minimal maintenance. Safety inspections should be completed on a daily basis. Consider the following steps when developing a maintenance program:

1. Provide a number that people can call to report problems with the park such as maintenance issues.
2. Visually inspect park areas daily and ensure you document all inspections. Remove broken glass, garbage, and other debris and make minor repairs immediately.
3. Equipment with more serious damage and wear should be removed and stored safely immediately.
4. Document all inspections, repairs, and maintenance of the park and record it. The lack of equipment maintenance is considered a major factor in skatepark injuries (Cowan, 2012).

A beautiful skatepark can quickly lose its allure without consistent attention to small details such as cracks, loose screws and uneven concrete. It is crucial that your team has a person on-call, close-by in proximity to the skatepark to make these changes as soon as possible. It will improve the value of your park and promote safe skateboarding if your park does not have state of repair concerns while it is open to the public.

Chapter 6



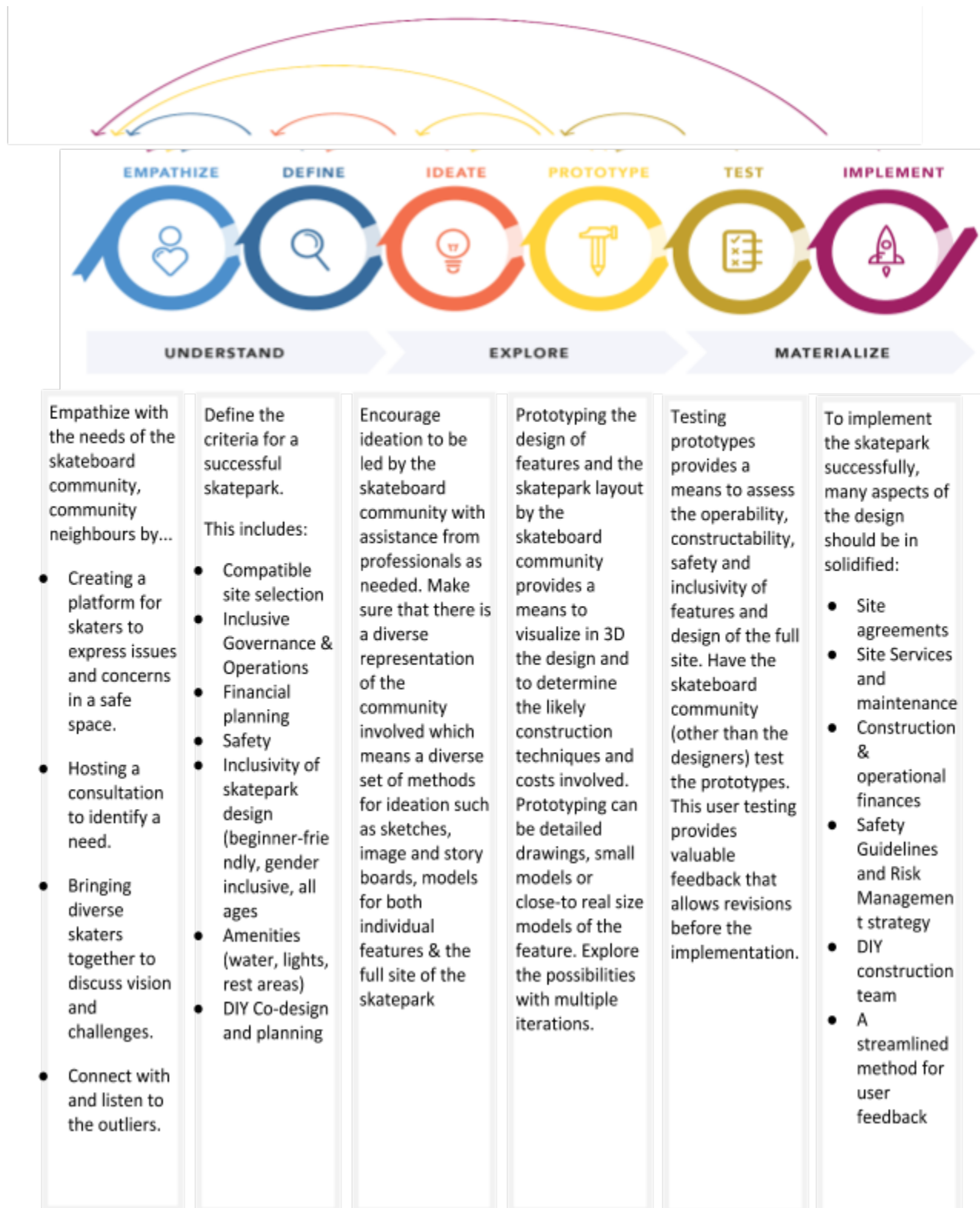
SHRED

6.1 Shred

You have mastered your maneuvers and now its time to add your personal flare and style! Backside, frontside, you know the design themes inside and out and you know what your skatepark needs to succeed. This chapter includes a process map for your future skatepark! The process map is a result of applying the inclusive design principles and the design thinking process through the lens of creating an inclusive DIY skatepark. The result should inform the skateboard community in

understanding the possibilities, restraints and responsibilities of developing a DIY skatepark while also engaging the neighboring community members in understanding and finding support of your skatepark community and skatepark.

6.2 Figure 30: Summary of an Inclusive Design Thinking Process Model



6.3 Study Limitations

This was a small scale study carried out by University students & skateboarders with limited funds and resources. We understand that this sample size does not represent *all* or even *most* skateboarders in Toronto. The importance of this study is that it represents some of them. The more we investigate, the more we will uncover in terms of how to best serve skateboarders through inclusive skatepark design considerations. There were other limitations to the study. The research was exploratory and we did not have a specific site or municipal officials involved in the co-design sessions. The next step would include engaging the greater community, BIA and municipal authority in a co-design session *with* skateboarders with a focus on a specific skateboarding site. This will allow for the maximum inclusion of the design of your facility.

6.4 Conclusion

The Intrinsic Value of Co-designing Skateparks lies in the opportunity it creates for skateboarders in the broader scheme of life. The value is multifaceted and ranges from interpersonal growth and life-altering social experiences to gaining real world skills in construction, planning and design. To take things a step further, developing a DIY skatepark involves creating a facility devoted to skateboarding which means answering the call of many marginalized people who have gone without a sanctioned skate space for over a decade. Developing a skatepark using the co-design recommendations in this paper (Inclusive Design Thinking Model) will facilitate an inclusive process and a sustainable design. If skatepark planners want to promote equality and address barriers that affect skateboarders, it is valuable to engage them in multiple co-design sessions at the earliest possible stage as well as throughout the entire process. Due to their unique and unusual nature, skateparks are still heavily misunderstood by the greater population who don't skate. In 2020, skateboarding will be recognized as an official sport in the Summer Olympics and we are guaranteed to see a rise in skatepark developments around the world. As cities begin to build more parks, this affords an opportunity to bridge the gap and educate others around what skateboarding is, who skateboarders are and why skateparks should be designed with care. Because the sport is still so new and sanctioned skateparks were typically built by governments, stakeholders will question the legitimacy and importance of what you are trying to do. It is imperative that you consider the concerns of all stakeholders affected by your skatepark and work to find harmony amongst them. DIY Skateparks offer a very progressive ideology around "public"

recreational space as they are created by and for the community. In order for the park to function and remain sustainable, it needs people to keep it alive through consistency, commitment to longevity, regular maintenance and general care. The co-design of a skatepark is at the root of what makes the park inherently inclusive. Systems and ideas around equity and equal access will already be built into the plans. If municipalities, skatepark designers, planners and community groups want to build a long-term skatepark facility, co-design should always be at the forefront.

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