The Architecture of Play

An honors thesis for the Department of Art and Art History

Mary Lowery DeCamp

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Chapter One: Introduction

Witnessing an adventure playground firsthand is a remarkable experience. In July of 2011 I visited one in Berlin, Germany called “Kolle 37” and it was one of the most fascinating and bizarre sights I have ever beheld. Walking into the park’s long approach, one that kept it free from passersby and largely concealed from the street, I wondered if I was indeed going in the right direction. Along this approach was a small petting zoo followed by a more traditional play area constructed out of recycled materials which made the space look comfortable and inviting. Near this area’s swings I came across a scene that seemed as if it were right out of Snow White and The Seven Dwarves: a group of small stumps of wood with miniature axes stuck into them dotted the landscape, both objects scaled to accommodate a child lumberjack (Figure 1).

Figure 1. Axe and wood at the Kolle 37 adventure playground.

Once inside the actual adventure playground, I came across a bulletin board with information for parents asking them to let the children play with one another or on their own, to
leave the building area, and inviting them to sit in the “parents’ corner” at the entrance of the playground near the street. Sizing up the destructive and dangerous capabilities of the tools available to the children: hammers, saws, crowbars, and axes; I thought it unusual to leave the children unattended. Even though a playground leader supervised the area, something seemed amiss about the whole situation. Adults in the United States usually monitor their children from benches that line the whole space, creating a parental fence of sorts. That the German parents sat leisurely in an area out of sight from their children was entirely different - and their children were wielding the same tools as experienced craftsmen! Inside the playground, the children were each given a hut to build and renovate with other children. They took turns in leadership roles and seemed to devise solutions among themselves, and while they occasionally asked the play leader for help, he usually suggested that they try to solve the problem on their own. The resulting structures were quite interesting.

Together, the massed huts created a startling sense of verticality despite the generally low-seated nature of the constructions. A few, however, were quite high and partially measured by a ruler, the uppermost reaches yet undefined. The constructions were derivative of basic vernacular architecture and featured doors, windows, and gabled roofs. The degree of craftsmanship varied, with some huts very haphazardly thrown together and others, including one hut whose base was formed by stacking interlocking branches, displaying great attention to detail and knowledge of building materials and construction methods. On the interiors and exteriors, the children had fashioned their own benches, chairs, and tables. All of the huts displayed aesthetically pleasing nesting and stacking properties as expansion went upwards. The mismatched wooden panels, sometimes painted, gave the place a spirit of whimsy and relaxation. The vibrant hues children chose to paint their huts were reminiscent of Caribbean ocean side
homes, and despite the unfolding and tumultuous nature of the constructions and site, the environment felt natural, earnest, and was chic in appearance (Figure 2). Out of chaos, the children had created their own order.

Figure 2. Children's constructions at the Kolle 37 adventure playground in Berlin, Germany.
At first glance, the workings of this child microcosm may appear foreign to adults both thematically, as the primary use of the playground raises safety concerns, and aesthetically, as the constructions bring about feelings of unrest associated with messes, unruliness and chaos. Fundamentally, adults have a hard time relating to children and their play environments, even on a traditional-style playground. In the NBC documentary-style comedy series “Parks and Recreation,” which details the day-to-day activities of the well-meaning yet incompetent workers in a parks and recreation department in a small town in Indiana, the opening scene of the pilot episode finds the head of the parks department, Leslie, trying to speak to a little girl playing in the sand at a playground. “Hello,” she starts. “Hi. My name is Leslie Knope and I work for the parks and recreation department. Can I ask you a few questions?” The little girl then looks up at Leslie with a nervous and alarmed expression and doesn’t reply. Leslie continues unflaggingly, “Would you say that you are enjoying yourself and having fun, having a moderate amount of fun and somewhat enjoying yourself, or having no fun and no enjoyment?” After receiving no answer from the busy girl, Leslie concludes, ”I’m going to put ‘A lot of fun.’” Although a fictitious situation, the interaction between Leslie and the girl illuminates a systemic problem in the interaction of children and adults.

It is the goal of this paper to explain how these stilted interactions with children and adult opinions of childhood and play have manifested themselves in the built environment, which in turn has impacted children and their development. The first section analyzes playgrounds with a primary focus on their developmental impact and a discussion of their histories, culminating in design recommendations for successful playgrounds. To explain the largely stagnated state of playground design, an analysis of historical notions of childhood and views of play follows, as well as a discussion of children’s satisfaction with their play environments.
means of negotiating these ideological factors which have impacted the design of playgrounds, a discussion of later instances of the interaction of play and the environment, including skateboarding, tree houses, and film, is intended to allow adults to understand their own complex relationship with architecture that facilitates fun and enjoyment. The conclusion offers a new way to conceptualize play environments so as to allow their users to benefit more fully from their interactions with them. However, before going any further, it is first key to understand what play is and what role it assumes in child development.

In defining play, it is noteworthy that it is ambiguous and hard to define because play is more of a verb than a noun.\(^1\) Perhaps if “play” were reified it would take the form of a Kandinsky painting, with warm and vibrant hues, unapologetically abstract shapes, and nonsensical scenes all combining to create a moment of spontaneity and pleasure. A study of young American children during the summer found that the children played for one third of their waking time, making it a major activity for them.\(^2\) Renowned developmental psychologist Jean Piaget went so far as to say, “Play is a child’s work.” Informed by common distinctions made in the field of child development, our working definition of play will be that it is different from exploration, that it is non-literal, that it is intrinsically motivated, that it is process oriented instead of goal oriented, and that it results in some sort of positive affect. Perhaps most important to keep in mind about play is that defining it is quite contrary to the nature of play itself.

It might seem obvious that play is important to a child’s development, nevertheless work by intellectuals and researchers gives credence to this logical assumption. The Soviet psychologist L.S. Vygotsky identified play as the “source of development.”\(^3\) To him, play was the propelling force in a child’s life and he believed it to be directly involved in a child’s
behavior by providing the child with “illusory freedom” and by allowing the child to develop abstract thought. Likewise, Piaget found that a baby’s early sensory-motor and imitative play allows for intelligent thought before the development of language and defined “everything during the first months of life, except feeding and emotions like fear and anger” as play. He also believed that play led to an understanding of symbols, from the most basic to the abstract, and was a process of assimilation where children increased their knowledge of social interactions.

Play is perhaps first important in terms of physical development and allows children to integrate their minds and bodies when they engage in fine and gross motor activities. This development of an awareness of one’s own body is known as proprioception and is accelerated by freedom and encouragement to play. Outdoor play, associated with motor activities, is also important because it allows children to learn about nature and their cultures, develop mental maps, release energy, and become environmental activists. As children mature, particularly between the ages of eight and twelve, play takes on multiple intricate forms including practice play, which increases skill levels; pretense, where symbols are used to create imaginary situations; games with rules, where children create and supervise their own games; and construction play, such as building structures and creating artwork. Play during this time is especially important because it allows children to develop social and emotional competence by providing opportunities to interact with peers, during which children must organize themselves, display self-control, and act civilly with one another. The sociologist Edward C. Devereux explains this type of development with his childhood experiences playing sandlot baseball, summarizing that through play, “We gradually learned to understand the invisible boundary conditions of our relationships to each other.” Through this development, children learn to
delay immediate gratification, persevere, and collaborate. It also allows them to fulfill needs for affiliation by giving them opportunities to practice the art of negotiation, a key component to successfully entering other children’s play scenarios.\textsuperscript{13}

Aside from social development, play facilitates cognitive development. In play including pretense, games, and designing, children must practice and develop their executive skills by planning the premises of their pretend play, the meanings of symbols in their games, the rules of games, and the construction process of their designs.\textsuperscript{14} Sylva, Bruner and Genova (1976) have also determined that children become better problem solvers based on previous experiences established during play, and as defined by Fagen (1981), play provides a “generalized ability to adapt to environmental novelty,” or situational flexibility.\textsuperscript{15} In fact, 95 percent of all learning comes from play, fantasy, and experimentation.\textsuperscript{16} Furthermore, that pretense games figure into a child’s general imagination and creativity is important beyond the scope of the two activities themselves, because by imagining and examining situations from different viewpoints, researchers have shown that children become more patient, more persevering, and better at imagining the future.\textsuperscript{17} In short, play influences a child’s physical, social, emotional, and mental development.

Having established important parameters in terms of play and its role in the life of a child, we are now sufficiently prepared to make a more in-depth query into the significance of a space most commonly associated with children: the playground.
Chapter Two: Playgrounds

Beginning with a history and architectural analysis of each type of playground with a focus on their developmental impact, this chapter culminates in a recommendation for elements and principles to be included in a well-designed playground. Playgrounds are generally grouped into four categories: Traditional, Designer, Natural, and Adventure, although this organizational method has varied across literature. My analysis will begin with the earliest type, the traditional playground.

i. The Traditional Playground

The traditional playground was first introduced to the American landscape in the late 1880s. The philanthropist Joseph Lee of Boston is credited with aiding its proliferation in the early 20th century and served on a national organization founded in 1906 called The Playground Association of America (PAA). Amid a slew of other special public projects during the Progressive era led by social workers wishing to improve conditions in rapidly urbanizing cities, the appearance of the playground indicated a lifestyle shift in America, whereby a general consensus decided that children were in need of their own individual place and that life in the industrial cities had become too dangerous for them. This taming of the adventurous, unbounded child is what Mercogliano describes as a “departure from the nineteenth-century Tom Sawyer/Huck Finn archetype.” It is therefore noteworthy that playgrounds were in part invented out of a social decision regarding the physical well-being of children. Implemented as safety measures, playgrounds opened up new spaces for children, although essentially created to keep them out of other areas.

These early playgrounds were virtually the same as those found alongside many school buildings of today, consisting of play equipment specifically designed for younger children often
paired with some sort of open space for ball games or athletic fields intended for the older ones. The early facilities included a trained staff, notably absent from the playgrounds of today, who were to organize and structure the children's games. To Lee, these sorts of structured games were more than just a time for children to have fun in a guided environment. They served as a form of indoctrination whereby, according to Lee, "‘you lose yourself in the game, give yourself to the cause, and begin to feel that the work is bigger than you and that full life possesses you.’” Lee’s protégé, Dr. Luther Gulich echoed these sentiments, believing that the organized play taking place at the playgrounds fostered positive development in terms of controlling emotions, increased willpower, and “[submitting] more easily to authority,” instead of merely supporting physical development.6

In another instance, further examples of the social aims of playgrounds presented themselves on the other side of the world at the opening of Myers Park in an inner-city area of Auckland, New Zealand in 1915. To make way for the new park, kindergarten, and playground held within the grounds, fourteen nineteenth-century houses and other cottages described as “slums,” which comprised eight acres of land, were demolished. In renovating the slum area, there was a “desire to shape, to mold, to improve both the urban environment and ultimately the young citizens using the facilities.” In the process of sanitizing the physical environment, children were also to be designed as the bearers of a new and better age. Referred to as an “experiment,” the park was the brainchild of Arthur Myers, former mayor of Auckland and successful businessman, who had been influenced by The Revelation of Britain: A Book for Colonials, published in 1909 by Charles Reade, which detailed the negative effects of slums. His subsequent newspaper articles about slums in New Zealand demanded that town-planning
legislation fight the phenomenon, but as Cusins-Lewer and Gatley note, there is “little evidence to support the slum-clearance premise.”

Through clearing the slums to create the Myers park and playground, developers had goals for these children similar to those mentioned in the United States, such as improved physical fitness, health, and morality, but added to the list “increased industrial efficiency, military strength, and national prosperity.” Bolstering these intended outcomes were additional child protection laws that changed the view of children as “parental possessions” to “social capital.” Such a belief system manifested itself in the supervisor-organized play at the park. These games and activities were designed to incite the desire to win within the “‘little citizens,’” whose play was encouraged in times of war as a “release of inherent barbaric tendencies.”

Summarily, the history of the traditional playground indicates that its developers had larger social and pedagogical goals aside from providing children with a place to play.

Traditional playgrounds are often a part of a school ground, housing project, or neighborhood park and usually have swings, slides, seesaws, merry-go-rounds, and climbing bars. They also frequently have concrete pavement, large sand boxes, and large play structures. Today’s traditional playgrounds often also include moving elements on large play structures, such as rotating pieces forming a “Tic Tac Toe” board. At the Robbins Farm Playground in Arlington, Massachusetts, also known as “Skyline Park” for its views of the Boston skyline, a traditional playground is perched on a hill. Across the street from an elementary school and accompanied by a baseball field, soccer fields, and a hill with plenty of open space for activities, the playground already fulfills the site characteristics typical of traditional playgrounds (Figure 3). Its play structures are also traditional, including large slides built into the hill (Figure 4), small slides paired with a giant linear, metal play structure, areas for
climbing, monkey bars, and swing sets (Figure 5). The monkey bars and hanging bars at the park have been scaled to serve children of various heights. The section of the park furthest from the large slides also includes a smaller climbing structure and a swing set for younger children. A wooden house and wooden cars rest upon mulch in two sections of the park. A few sets of small sand pits are set into the ground. One half of the playground is well shaded by trees and there are areas of congregation for adults surrounding the periphery of the playground. Aside from its larger play structures that are sometimes accompanied by smaller ones in a way similar to an estuary being fed by smaller bodies of water, the elements of the playground are scattered, far apart, and positioned in ways that do not create a unity of movement between the pieces.

Figure 3. Robbins Farm Playground in Arlington, MA.
Figure 4. Large slides built into the hill at Robbins Farm.

Traditional playgrounds such as this one are most often associated with promoting gross motor skills while being inadequate in promoting other types of play. Without additional materials other than the fixed structures for children to manipulate, there is not much room for creative play, and since the structures promote solitary and parallel play, social play is not a common occurrence on the traditional playground either. The open space for running, climbing equipment, and swing sets at Robbins Farm Playground engage children’s fine motor skills. Specifically, monkey bars have been shown to have a high value in regard to play with respect to a child’s development. Monkey bars allow children to develop upper body strength and movement, in addition to providing children with opportunities to take risks, move their
bodies in new and complex ways, be creative, stretch, and have fun. As children continue to engage with monkey bars and increase their competency with the structure, they develop feelings of self-esteem with regard to their accomplishments. One opportunity which monkey bars provide, the ability to hang upside down, has even been shown to influence the development of the brain.\(^\text{12}\) Another element like the monkey bars at Robbins Farm, which allows children to experience self-esteem as a result of mastered skills, includes the large slides set into the hill, whose scale gives children an appropriate challenge. So long as there are appropriate challenges at traditional playgrounds, a child’s development is able to grow in terms of his or her gross motor skills, as well as the satisfaction that the mastery associated with them brings.

While traditional playgrounds can thus foster a positive self-image, they do not succeed in promoting relationships amongst children or between children and adults. Since these playgrounds present children with mainly personal activities that consist of working their own way around fixed structures, children do not have to actively engage with one another. Furthermore, the paths of the play structures like the ones at Robbins Farm are fairly unidirectional. It is hard to see the fun in chasing one another across the same tired footbridge time and time again. Elements which would seem to facilitate social and even socio-dramatic play, like the wooden cars and benches at Robbins Farm, can also fall short on the traditional playground. Their literal shapes may make it hard for children to create scenarios outside of the given forms (Figure 6). Likewise, the general proximity that parents have to the children in the playground does not facilitate positive relationships between adults and children. It is not hard to imagine that children at play in the wooden house might feel as if their play is being intruded upon by a parent sitting at the bench only a few feet away (Figure 6).
Figure 5. Monkey bars at a traditional playground.

Figure 6. The definitive structure of the play house does not help children in their imaginative play.
ii. The Designer Playground

Designer playgrounds, sometimes referred to as “contemporary” playgrounds, emerged in the 1960s and were seen as “vague, abstract, and unspecific both as to form and function.” Often situated on sand or concrete, contemporary playgrounds were designed by architects and often made of natural and recycled materials, resulting in an aesthetically pleasing quality. Scarlett considers these playgrounds more “flexible for play” than traditional playgrounds, and notes their arrangement as being more conducive to play between playground elements. Aaron and Winawer also describe contemporary “play sculptures” as being successful in engaging children’s imaginations due to their derivation from natural forms. Japanese architect Mitsuru Senda describes these sculptural playgrounds as “landscape play structures” and sees them as serving a “more important function” than merely eliciting play, that is, as “providing a landmark in the play environment,” which he describes as bearing a close relation to public art.

Cast aluminum shells make up the heft of a designer playground created by the architect David Aaron for the Alcoa Aluminum Company of Pittsburgh, Pennsylvania (Figure 7). Amidst a backdrop of tall trees, the structures do not appear out of place. They seem natural and local, with curves and different orientations that are reminiscent of a group of fauna, perhaps mushrooms or gourds. Aside from blending into the environment, they compose a unit unto themselves, determined by carefully chosen levels and spacing between the individual elements. At the lowest level we find half of a sphere with three ovular openings cut into its top. Oriented like a turtle’s shell, it gives off the impression that it is more closed than open. It seems to be shy or hiding from the other elements, its form following its function as a place for privacy and hiding. Its scale is so perfect for a child that, judging by the boy peeking his head out of the opening, it is hard to imagine an adult inside the shell. Increasing in height in a spiral array
moving clockwise, two upturned saucers of different heights and sizes, also with holes cut into them, create a sense of continuity among the unfamiliar, yet natural forms. Lastly, a tall, curved structure reminiscent of Saarinen’s Tulip Chair stands between the tallest saucer and shell, bridging their gaps and inversions.

Figure 7. Aluminum shapes with unspecified forms promote imaginative play at this designer playground.
Importantly, the abstract nature of the structures lends itself to a plethora of imaginary scenarios. Is the lowest element a turtle shell, a submarine lid, a burrow, or a cave? Are the upturned saucers giant plates, boats, or buildings? The narrower element might be a giant flower petal one day and a spaceship the next. The positioning of the elements also encourages imaginative play because the variety of levels and height coupled with their relative locations make movement and interactions between the elements easy. According to the designer, Aaron, “children varying in age, size, skill, and confidence can find adventure here.” Such is the case when complexity and fluidity interact in designer playgrounds. Though the gross motor skills of a child are less engaged here than on a traditional playground due to the play space’s elements serving as more of a backdrop for play as opposed to comprising the play activity in and of itself, the generally undefined nature of designer playgrounds facilitate imaginative and social play quite well. The solitary nature of the traditional playground stands in stark contrast to the cooperative nature of the designer playground. Without a specified meaning, the shapes allow children to create any type of imaginary situation in which they would like to engage, and because they serve this purpose so well, designer playgrounds facilitate relationships between children by allowing them to directly interact with one another. Since the play on designer playgrounds is less physical than on traditional playgrounds, adults may be less watchful than usual and have a more removed relationship from the playing children, thereby allowing for freer play experiences.

iii. The Natural Playground

The third type of playground, the natural playground, refers to a playground purposefully designed to familiarize children with the natural world by the inclusion of a number of elements found in nature. In this case, the design emphasis is placed more greatly on landscape features
like “boulder climbing areas, water features, plantings that induce hiding and movement, pathways taking children up and down the geography, and features that promote social encounters, focused exploration, and interaction with natural materials.” At times such playgrounds can be more directly pedagogical in mission, such as the Children’s Plaza for the Tsukuba Science Expo in Japan in 1985. There, Mitsuru Senda was commissioned to design play structures meant to help children learn about their environments, such as sensing light, sound, and winds.

To some, letting children play in the outdoors and consequently learn about nature is an extremely pressing concern. For example, Mary Rivkin’s article “Children’s Outdoor Play: An Endangered Activity” attributes the loss of outdoor play to a combination of a loss of habitat for children and a reduced access to habitat. She views the loss of habitat as a result of automobiles and roads acting as hazards, population increases decreasing the amount of land on which to play, and pollution’s debilitating effects on landscape as well as human health. Rivkin identifies a reduced access to habitat for children as resulting from the institutionalization of children, in which children spend the majority of their time engaging in structured activity, such as child care, school, sports, lessons, and camps, negative social conditions including violence, drug trafficking and vagrancy, communication technologies such as television, computers, and video games, which take children’s attention away from the outdoors, and lastly lawsuits which render natural areas, such as lakes, as liabilities. Aside from the more immediate effects resulting from a lack of play outdoors, such as failing to learn about the outdoors and a loss of culture due to lack of knowledge about the natural world’s relation to myths, legends, medicinal and food uses, Rivkin expresses concern that without outdoor play, children’s ability to mentally map out their environment may be at risk and that they will also be poor environmental stewards, citing a study
(Chala, 1995) in which environmental activists in Norway and the United States hold that their work arose from “childhood experiences in natural areas” and “the examples of family members.” As a remedy to the problems she identifies, Rivkin offers rebuilding habitats, which include trees for shade, shelter, and structure, water, places to sit, native plants, and making them accessible to children at their schools to familiarize them with nature.22 Play in the outdoors is also important because it improves reasoning, observation skills, creativity, and concentration.23 Play in green settings has also been shown to make symptoms of ADHD milder.24

A study conducted by researchers Kuh, Ponte, and Chau at the Eliot-Pearson Department of Child Development at Tufts University charted the changes in children’s play experiences over a year when a traditional playground at the early childhood university lab school was replaced with a natural playground. A traditional climbing structure was discarded, followed by the building of a tree house around an already extant pine tree, and the inclusion of new seating and plants and new bike paths of varying textures to expand the old ones. Large blocks were made accessible to children by modifying a storage shed and a large “beach” sand area with boulders on which children could climb and with a waterfall operated by a button was created out of a once small, bounded sandbox. The hill and field areas were altered to include gravel pathways, landscaped seating, and a raised garden bed (Figure 8). The children who were observed were in preschool, kindergarten, and first and second grade. The study consisted of mixed methods, including time-sample observations and research field notes.25

It was found that the tree house, as opposed to the traditional climbing equipment, resulted in increases in cooperative and constructive play and increases in nature play. However, there were also decreases in climbing and the length of play. The swings, now situated near the circular bike paths, resulted in increases in biking duration and frequency and increases in
cooperative play. The new access to blocks via the shed resulted in increases in the duration and frequency of construction play, increases in cooperative play, increases in running, and an increase in the length of time spent engaged in this play. The new beachfront sandbox and accompanying boulders and water resulted in increases in sand and water play related to cooperative play in both duration and frequency and increases in climbing. The new bike paths resulted in increases in biking associated with cooperative play in duration and frequency, as well as increases in constructive play. That a change of habitat led to so many changes in cooperative play, even in more solitary activities, such as biking and playing in sand is especially significant (Figure 9). Ultimately, what the researchers found was that “a natural playground design can enrich play experiences for children across many domains related to the duration and quality of children’s play” and that “providing a range of contexts was important to support and expand children’s play, promoting social interactions, shared narratives, and coordination in their play activities.”

Similar studies conducted by Moore (1978a) and Moore & Wong (1977) found that diversifying school grounds physically created educational environments “to support a wide range of playing and learning environments.” As opposed to natural settings, which promoted imaginative and dramatic play, asphalt was considered to have “a low child development value, if not severe negative impact on child development.” The natural playground also kept the children from falling prey to boredom, which makes individual development, self-sufficiency, and social integration very difficult. Moore also noted that environmental diversity could keep children emotionally occupied, acknowledging that one boy said he was no longer lonely when he had no one to play with because he could play in the sandbox. In this way, Moore explains
that “environmental diversity can be an antidote to sadness, a reliable companion.”

Figure 8. Plans of the main section of the Tufts Eliot Pearson Playground

In addition to facilitating play between children and having the aforementioned ability to keep children engaged even when they do not have anyone to play with, natural playgrounds have been shown to foster positive relationships between children and adults. One study found that children’s experiences in natural play settings were enhanced by adults who asked them questions about their discoveries and helped them understand their experiences in the natural environment. Furthermore, one researcher, Wilson, found that “it is the teacher’s interest in nature --more than his or her scientific knowledge about the natural world-- that will have the greatest impact on arousing children’s curiosity and engagement.” In turn, there is also something to be said for the joy an adult might experience when viewing the natural world once again through the eyes of a child.
iv. The Adventure Playground

Finally, the last type of playground is the adventure playground. By the definition of the noted promoter of playgrounds in England, Lady Allen of Hurtwood,

“adventure playgrounds are places where children of all ages can develop their own ideas of play. Most young people, at one time or another, have a deep urge to experiment with earth, fire, water and timber, to work with real tools without fear of undue criticism or censure. In these playgrounds their love of freedom to take calculated risks is recognized and can be enjoyed under tolerant and sympathetic guidance.”

More specifically, these sites originated in Denmark in 1943 during German occupation after the landscape architect Sørensen was intrigued and impressed by children who played in junk yards and building sites using waste objects they found there instead of the playgrounds intended for their use. He then started the Emdrup waste material playground in a new housing estate outside
of Copenhagen which included the aptly trained John Bertelsen, a nursery school teacher and ex-
sailor, as its leader.\textsuperscript{31} The architectural historian Kozlovsky takes care to note that this form of
playground originated from the insights of landscape architects and not educators and that
although the designers at the time could have worked with the contemporary trends of modernist
abstraction in mind, they instead favored the “imagination” at work to be the children’s.\textsuperscript{32}

The play in adventure playgrounds, consisting of child-led activities, was seen as
allowing the children to take responsibility for their own actions and to act in a harmonious
environment with their peers, thus offering “lawlessness,” albeit under the watchful eye of a play
leader. The play leader was not intended to act as a monarch; he remained there in case someone
was needed to quell a particularly unruly situation and to foster an environment in which
children could work amongst themselves, as Bertelsen noted. This laissez-faire approach to
managing the adventure playground and leaving the interactions and constructions up to the
children was in part political in nature, because it challenged the German Fascist ideology by
promoting democratic and anti-authoritarian values. In learning to negotiate the minor conflicts,
social dynamics, and challenges of the adventure playground, it was hoped that the Danish
children would regain their trust in society. However, Bertelsen’s predecessor, Vesteregn, who
took over the Emdrup playground in 1947, rejected Bertelsen’s permissive attitude toward
lawlessness, instead believing that “‘children should not remain in [the] deconstructive state;
they need help to be brought out of it.’”\textsuperscript{33}

Lady Allen was eventually able to spread adventure playgrounds throughout England,
and particularly in areas in which urban renewal projects were underway, by suggesting that the
creative and rich play they promoted could counteract the negative impacts of war. For
example, by creating a scenario in which children of both genders and all ages would work
together to build their own playground, children’s play was thought to have the capabilities of fostering democracy. Although the idea for the playground was influenced by Sørensen’s work, it was Allen’s own idea to build England’s adventure playgrounds on bombed sites and “blighted or blitzed” localities. Such an act, in the words of psychiatric social worker George Burden, was meant to dissuade children “from the tolerance and approval of the destruction which is associated with the war” as envisioned during wartime as an increase in juvenile delinquency. The phenomenon of children building on sites of destruction was intended to keep the children from becoming collateral damage and also aided the greater society symbolically as adults were able to watch children “rebuild” their damaged environment and society. Artist and pedagogue Marie Paneth who worked in play centers in air raid shelters in London also saw the cathartic possibilities of playing upon the sites of damage and believed that in allowing children the opportunity to “act out their aggression,” they would eventually grow “sick of their own method and start life at the new place with rule and order.” Her views constitute an interesting combination of Bertelsen’s detached approach, Vesteregn’s insistence upon a goal of eventual order, and Allen’s belief in reconstruction, perhaps arriving upon a compromise of sorts between the different intentions of the adventure playground. Since these earliest manifestations of adventure playgrounds, similar playgrounds have sprung up mainly in Europe, with current estimations approximating 1,000 adventure playgrounds within the continent.

Of all the playground types, adventure playgrounds are “the most flexible” in terms of having “open-ended materials” like sand, water, large blocks, and woodworking tools. A study conducted by Hayward, Rothenberg, and Easley (1974) has shown that of traditional playgrounds, designer playgrounds, and adventure playgrounds, children play for the longest durations at the adventure playgrounds, with median length of stay for each of the playgrounds
being 21, 32, and 75 minutes, respectively. The study also found that due to the adventure playground’s flexible, unfixed nature, children were able to “define self as well as space” there. Dattner is quick to remark that children, unlike adults, seem to be “at ease amidst the ‘junk’” and find “order and harmony” in the debris, which allow them to establish an “elaborate and highly personal plan” in building. Ultimately, he postulates, “they want to design their own playgrounds.” This sentiment is also echoed in his photographs depicting children playing with empty milk cartons, cans, and crates. In this way, the adventure playground elucidates an almost preternatural desire to create.

The playground detailed in the Introduction, Kolle 37 in Germany, is illustrative of this playground type. To the extent that the act of building (the main activity of this park) provides a challenge in and of itself, the playground is successful. The positive developmental outcomes for children regarding their relationships with one another stem from the site’s activities, which necessitate that children constantly make decisions together and learn skills of cooperation and negotiation. In regards to solving problems as a team and using verbal skills to do so, I think that there would be a wealth of play opportunities available to a physically disabled child at such a park, since the play primarily involves communication between participants and is not centered around gross motor activities in the same way as a traditional playground. This approach was evident in an article by Shaw, in which it is explained that designing playgrounds for disabled children and other children do not have to be two different tasks. Instead, Shaw focused on qualities that were integral to all park goers, including, for example, variety, which is surely created in the adventure park in that each of the children execute their own unique designs.

On a personal basis, children enjoy adventure playgrounds because of their perceived level of freedom and their sense of ownership over the site. This sense of ownership the
children felt over Kolle 37 was evidenced by the ways they had decorated their huts as well as their contents, such as a dirty plate sitting on a table with benches and chairs they had made themselves (Figures 10 and 11). That the children do all the labor themselves also ensures that everything is designed with a child’s scale in mind, and as they build competency in construction methods and watch their own designs take shape, they also gain self-esteem. In addition to learning skills such as how to use tools, adventure playgrounds, especially in cities, may also be used to bring nature to children who might not otherwise experience it, such as Kolle 37’s petting zoo. It bears stating that in a cultural comparison, liability issues in the United States would most likely prevent similar types of play places from becoming commonplace, despite their apparent usefulness to children’s play. It is notable, however, that adventure playgrounds do not have worse safety records than traditional playgrounds. In fact, the Royal Society for the Prevention of Accidents (RoSPA) in the United Kingdom determined in 2006 that compared to other playgrounds, adventure playgrounds resulted in fewer injuries and led to a smaller number of lawsuits.

It has been established that not all types of playgrounds foster the same type of developmental gains, and that the natural and adventure playground types are the better of the four, although it is my opinion that the penultimate playground would contain elements of all four playground types. If we were to then include the best elements of the four playgrounds in one space, what would they be?
Figure 10. "The Magic Construction House."

Figure 11. Children inhabit their own dwellings.
v. Creating a successful playground with Mitsuru Senda

The creations of Japanese architect Mitsuru Senda, who specializes in playground and playground equipment design, are informed by the way children play and Senda’s definition of the four ingredients of a child’s play environment, which he believes are “a place to play, time to play, friends to play with, and what they actually do.” In fitting in to this environment, he believes that play structures found on playgrounds must be “catalysts in generating play” and that the space must “spontaneously entice children into playing.” Structural, he defines a satisfactory play space and equipment as having seven requirements. They are: a circulation of play consisting of a clear flow of movement, that the process is safe and rich in variety, that the process includes shortcuts and bypasses, that the process includes symbolic high places, that the process allows children to feel “dizziness” at times, that the process includes large and small gathering places, and that the process is open and consists of multiple access routes. He identifies this form as a “circular play structure” (Figures 12 and 13). With this emphasis on circulation and action, Senda concludes that “a good playground will consist of large and small circular structures of play distributed around the ground like cells in a human body.” The sentiment regarding creating small gathering places for children has been echoed in other literature on the design of environments for children, including Cohen and Moore’s concept of creating a “series of small activity pockets.” I believe this design principle would be the easiest way to renovate traditional playgrounds. Without changing the concept of large play structures too greatly, arranging them into circular systems of play would increase cooperative and continuous play at traditional playgrounds.
While interested in engaging children in play based on games and movement, Senda to some extent does not acknowledge possible ways of promoting imaginary play. I believe that these qualities can be best found in the abstract shapes of designer playgrounds, the contemplative, cooperative, and discovery-oriented nature of natural playgrounds, and the design process associated with adventure playgrounds. Also, adventure playgrounds foster constructive play and the host of positive developmental traits that accompany the intellectual and interpersonal process through their use of loose materials, also unmentioned by Senda. Additionally, while Senda favors a circular quality to playground design, the type of linear play structure seen on traditional playgrounds, which often include a bridge element, crawling tubes,
monkey bars, and slides, lends itself to games that require movement from one point to another, perhaps in the form of a game of conquest, as noted by Senda.\textsuperscript{49} Although a simpler type of play, I do not think that this structure type should be totally abandoned, and I do think that if situated properly and not intended as a focal point or primary playground activity center, that it can still be integrated into playgronds.

Figure 13. A circular play system can also be implemented on smaller structures.

To further understand the good qualities of playground design, it is important to understand Senda’s acknowledgement that play itself develops on play structures. In the first stage of functional play the child uses the structure in the way that it is intended. In the second stage of technical play the child invents new ways to use the structure. In the third stage of social play the structure acts as a medium in children’s games. Here, the structure recedes and becomes the setting for a game. Senda used this sentiment to redesign the slide to provide a
more challenging, fun experience for children (Figure 14). While not all play activities on structures follow these stages, they may be used as a guideline.\textsuperscript{50} As a result of this acknowledgement, we see that different structures lend themselves to different types of play. This might lead us to conclude that natural playgrounds might be more age appropriate for children who are learning about nature, that adventure playgrounds are more suited for children with verbal and fine-motor skills already in place, that designer playgrounds are more appropriate for children with active imaginations, and that it might be better for traditional playgrounds to be scaled up and designed for older children since, as noted in the discussion of its play structures’ linear compositions, it provides a setting for play (the third stage of play on structures) and its capabilities might be exhausted somewhere between the first and second stage of play on structures.

Ultimately, the most important aspect in redesigning playgrounds is that new designs be fun and engaging to children so that they want to spend time there. To make the environments interesting, however, special considerations regarding the developmental significance of the architecture must be taken into account. How these developmental elements are evaluated should be determined in regard to the child’s relationship to himself or herself, the child’s relationship to other children, and the child’s relationship to adults. Though these suggestions stem from basic principles of the importance of play to a child’s development as well as literature that acknowledges shortcomings in playground design,\textsuperscript{51} playground architecture consists of designs that have gone relatively unchanged since they were first created. Why do we keep building the same types of failed playgrounds then, when there is an acknowledgment that certain playground environments facilitate specific types of development necessary to the growth of happy and healthy children?
Figure 14. The traditional slide is updated to test children's abilities.
Chapter Three: Adults and Children React

The repetition of these failed forms of playground architecture derives from historical notions of childhood and adult perceptions of child's play and child safety. The history of the playground, whereby Joseph Lee simultaneously created and destroyed a culture of play, encapsulates adult society’s preoccupation with controlling play. First examining these strains of thought and their manifestations and impacts upon playgrounds, this chapter will conclude in examining the children’s reaction to adult intrusion upon their play and play spaces through an analysis of imaginative and constructive play. It is hoped that through defining the circumstances which have informed the design of playgrounds that adults can become more self-aware of their influence upon children's play environments, understand how children have reacted to these environments, and choose to re-evaluate the meanings of play and environment so as to construct better play spaces.

i. Adults Conceptions of Childhood and Play

As was already established, one motive of the earliest playgrounds was to instill desirable virtues in children and indoctrinate them into democratic principles regarding group cohesion. Following this sentiment, it was also mentioned that playgrounds were seen as a solution regarding where to place children, especially within cities whose living conditions were deemed sinister. It is noteworthy then, that playgrounds were in part invented out of a social decision regarding the physical well-being of children. Implemented as safety measures, playgrounds opened up new spaces for children, although essentially created to keep them out of other areas. This phenomenon, whereby children are relegated to specific places, known as “islanding,” was also a primary factor in the founding of summer camps and is also proposed as being important to adults because by placing children in a specific place, the concept of childhood is made visible.
and secure, especially when there appears to be a sense of timelessness in the activities conducted at these sites.¹ Perhaps the continued presence of the traditional playground is the result of adults attempting to maintain a sense of timelessness in children’s play.

This assigning of children to a specific physical space in society follows the move of children to a different or new symbolic place in society. Beginning in early modern Europe, well-to-do families took up a sentimentalized view of childhood that was accompanied by newly found interests in nurture and education, according to historian Philippe Aries.² Mercogliano has also noted a similar chronology for this occurrence, situating the acknowledgment of childhood as a separate phase of life in the 1600s. Another sort of sentimentality regarding children arose between 1900 and 1950 when a decline in birthrate meant that more couples were making a conscious choice to have children, and thus that fewer children meant that parents began looking at parenthood more subjectively, and that children, in their lower numbers, were considered precious. Today, similar views regarding children have identified children as so inestimable that recent trends include safeguarding them from once carefree activities, such as Halloween. Adults were even once dissuaded from becoming parents as a result of psychologist Sigmund Freud’s then contemporary work, which investigated the extent to which parents could damage children’s psyches. As children and childhood grew into an increasingly special entity, specific places for them were demarcated, with the school being the first public one, and other places including playgrounds, summer camps, and separate bedrooms.³ That playgrounds increased and stabilized land values, thereby increasing their diffusion across America,⁴ may quantify just how valuable children were during Lee’s time. In fact, by studying childhood it becomes evident that the playground solution was not necessarily a new idea, but rather part of the then contemporary iteration of a tendency toward “islanding.”
In observing the founding of the playground, it is evident that the grounds and structures meant much more to Lee and his contemporaries than simply being a place for children to spend time. Instead, they believed that providing their current society with parks for children equated to providing society with tomorrow’s model citizens. This view as to the role of play is still held by many today and has prompted debate from within the field of child development, as it concerns itself with the nature of play and the role of the child.

In his 1995 essay “Does Play Prepare the Future?” play theorist Brian Sutton-Smith addresses what he believes are the century’s two major rhetorics of play: the theory that play is preparatory and the theory that play is a form of adjustment to the present. Ultimately, Sutton-Smith asserts that he is in favor of the play as adjustment theory, concluding, “children need their play to make the present tolerable to themselves, and to do that they need a lot of time to themselves. We should defend that need and not intrude upon it.” The argument which he didn’t support, that play is preparation for the future, is situated in the belief that children hold the key to the future and that their success is a reflection upon older generations. He posits that what both adults and children have in common across types of play, is a “need for empowerment in a world that largely disempowers them.” In the end, Sutton-Smith prescribes that adults leave play to the children.5

It might be said that the inherent power struggle evident between parents and children in these two competing ideologies as to the nature of play compose the foundation of childhood. The play as preparation theory places a great deal of worth in a child by viewing him or her as the future, but disenfranchises this child through the belief that his or her play is so important that it must be regulated. Unfortunately for children, when adults seize control of their play there is little much left for them. They cannot vote, work, or take care of themselves. They are
vulnerable and the community traditionally cares for them. This bureaucracy of childhood involving the control of a child’s life was described by Bronfenbrenner in a series of systems involving the factors that influence a child’s life but in which a child is not directly involved.

These external elements regarding the lives’ of children and their play figure prominently into playground design. Vesteregn’s earlier critique of the adventure playground as too wild and reckless is in keeping with adult notions of both appropriate play and appropriate play environments and her argument finds power in emphasizing the crude and feral activities attributed to children, culminating in visceral displeasure and a general sense of unrest. In a psycho-historical reading, this inability to cope with the natural wild tendencies of children is in accordance with wide-sweeping human desires to control their environments. The differing opinions of the adventure playground’s earliest play leaders typify the plurality of viewpoints regarding lawlessness and children. To Bertelsen, lawlessness represents a natural state that should be permitted; to Vesteregn, lawlessness is undesirable and must be eradicated; and to Allen, lawlessness is tied to youth and energy and should thus be manipulated to proliferate these qualities to the society at large. The activities as aided by the architectural environment therefore reevaluate the nature of chaos, children, and their relationships to society. As to the relevance of the adventure playground, Kozlovsky remarks that it “redefined the relationship between delinquency, democracy, and play” and “assumed the status of an experiment.” Such opinions, which regarded adventure playgrounds as barbarous and anarchistic, made their proliferation an uphill battle for the playground type, even when strong cases were made in their favor. For example, Lady Allen, an English landscape architect, leveraged the notion of children as a “separate, vulnerable group that transcended divisions of class, nation, or race” to support the antiwar cause and adventure playground development, but after enduring a three year delay to
the construction of her first adventure playground in 1949 due to “intense opposition of neighbors who equated junk with hooliganism,” Allen eventually changed the name of the parks from “junkyard playgrounds” to “adventure playgrounds” because of such perceptions.\footnote{11}

Furthermore, although the adventure playground gives children more control over their own play experiences, Kozlovsky is quick to offer that this was merely a semblance of freedom in subjective play. Like traditional playgrounds, adventure playgrounds were implemented with the intention of strengthening policy that utilized play to inform social and political ideologies, a sentiment shared by sociologist Galen Cranz.\footnote{12} Although different in form and perceived freedom, the traditional playground as developed by Lee and the adventure playground can thus be viewed as one in the same. However, it might be said that while Lee’s playground sought to indoctrinate, Sørensen’s playground intended to regenerate. Through employing play leaders who acted more as references than authorities, children were to challenge themselves to become better citizens, and through creating spaces for constructive play open to children recovering from wartime, including those of all different social classes, the adventure playground served as a “social service.”\footnote{13}

The contradictory nature of the early playground enthusiasts, who sought to free and control children, is contained within their own writing on the matter. For example, even discussing the physical arrangement of adventure playgrounds, Allen suggests that the site remain closed to its surroundings by a wall or fence, offering the fence as suitable because it provides children with privacy, but the weight of her argument seems to lie in the fact that the addition be able to hide the playground’s mess from adults. While possible that such a decision is well-intentioned and meant to create a private space in which children may play, it is important to recognize the other possibility that such a reason is meant purely as a buffer to defer
the annoyance that children’s play poses to the larger adult world. She even goes as far saying that an adventure playground’s success is dependent upon the play leader and not, say, the children playing in the park. In another one of her writings on more traditional playground design for younger children, Allen explains, “Sand is such a lovely material for children that all these apparent difficulties,” or the messes which sand can create, “should be met, faced and dealt with. The effort on the part of the grown-ups is minimal in comparison with the delight sand can give.” In one particularly funny manifestation of Allen’s attempt to accommodate adults in the design of their children’s play environments, she contends, “it goes without saying that seats and comfortable surroundings are essential for mothers too.”

ii. Safety Concerns

Many of Allen’s sentiments regard managing play in terms of safety, and this is a consideration that must be taken into account when designing playgrounds, but it too illuminates the adult influence on play. In regard to determining a child’s safety, the key factor to be considered is risk, which is a “pedagogical relation” between adults and children, extending more broadly than on the playground itself. What is meant by the term “pedagogical relation,” is that to assess dangers, adults must place themselves in the position of the child and understand what possible safety issues are, whether or not the child is capable of determining these risks, and then how to address risks in a constructive manner. The playground holds an important place in terms of assessing risk because its activities categorically center around risk, with children being “encouraged to take risks by their peers and, at times, by the adults who take them there.” For adults to accurately assess what levels of risk are posed to children on playgrounds requires that they assume the perception of a child, returning to their interaction with play environments during their own youth.
However, an over-preoccupation with children’s safety as a result of inaccurate risk assessment has made current playground design just as detrimental as when safety is not taken into account. A recent New York Times article questioned whether or not today’s playgrounds have become too safe and sterile, explaining that even injuries sustained in playgrounds serve important developmental needs, providing children with a means to cope with pain and conquer fears, which when unaddressed become emotional liabilities later in life. Furthermore, playgrounds have paradoxically been made more dangerous amidst increasing safety measures, which have made them boring to children and has in turn resulted in alternate, dangerous uses of the playground equipment.\textsuperscript{19} In terms of understanding the central role of risk on a playground, the playground is essentially a place whose design must reflect the sensitivity of an adult world which understands their roles as part-time interveners and part-time regulators, not absolute rulers. Here, too, adult misperceptions of children and play have led to insufficient play spaces.

Bearing in mind that the designs of playgrounds have been influenced by adult notions of childhood and the role of play taking the form of social and pedagogical missions, it becomes apparent that even something that might be considered pure and simple like children's play is not removed from social influence, and neither is its architecture. It has been demonstrated in the preceding chapter that these social influences have taken precedence over the developmental necessities, and one might wonder, how do children feel about all this?

\textbf{iii. Child reactions to play spaces}

“There was once a boy named Milo who didn’t know what to do with himself- not just sometimes, but always.

When he was in school he longed to be out, and when he was out he longed to be in. On the way he thought about coming home, and coming home he thought about going. Wherever he was he wished he were somewhere else, and when he got there he wondered why he’d bothered. Nothing really interested him- least of all the things that should have.”\textsuperscript{20}
The opening sentences of Norton Juster’s *The Phantom Tollbooth* detail the hopelessly bored Milo and his disengaging environment. One day, however, when a tollbooth mysteriously appears as a gift for him, his inactivity is replaced with stupendous imaginary adventures, which increase his quality of life by taking him to more interesting places. The role and actions of the imagination in play raise exciting new ways of considering the human relationship with the built environment intended for play. Let us first explain what imagination is and its importance in development.

The Soviet psychologist Vygotsky is well-known for his work on play and the imagination. Importantly, to Vygotsky, play represents the time when children are able to give precedence to an object’s meaning instead of to the object itself. When a child creates an imaginary situation, it is a momentous developmental step, because that child has reached a higher level of expressing himself resulting from having understood that objects are separate from their meanings and that they are capable of expression separate from action. Paul Harris, Harvard Graduate School of Education faculty member in the Human Development and Psychology area, shares Vygotsky’s belief that the imagination plays a sustained role in cognitive development. Ultimately, children’s imaginations are important because in evaluating circumstances outside of their own experiences, they are able to increase “the scope of ordinary reality.”

In humans, therefore, the imagination is an essential tool in the process of learning. Consolidating Vygotsky’s theory, Mercogliano explains the fault in interpreting education as the gathering of facts through traditional methods of rote memorization. Furthermore, the newest brain, the neocortex, which is the center of the imagination, is also the center of logic, memory, cognition, and language, and creates growth and survival strategies out of patterns. Imaginary
play also allows for children to undertake emotional learning because “emotions are almost by
definition nonrational; and make-believe, or imaginary play…likewise operates outside the
bounds of rationality.” Perhaps most telling, Piaget concluded that children “build knowledge
instead of acquiring and storing it” by making novel mental structures out of materials supplied
by the outside world. After careful consideration, we might say that without imaginative play,
development in multiple areas would be at a standstill.

Children’s imaginary play provides insight into how they think and perceive, and their
interaction with space during imaginary play is symbolically indicative of their powerlessness.
In creating alternate realities that supersede the physical environment, children conquer both land
and thought, by repurposing, ignoring, and ultimately deconstructing physical reality by using
the newly created spatial reality to escape from situational constraints. Ultimately in the process
of make-believe play, the built environment fades away and children are transported to a new
place with new rules where cooperation among the players becomes a key to the imaginary
world’s success. Piaget also considered make-believe play “‘practice play’” because it “allows
kids to reenact experiences that have moved or delighted them, and thereby to reinvoke, rethink,
and integrate those feelings.” We might then think of imaginary play not just as the
development of a new space, but also as a reconstruction of time and space closely associated
with emotions. In their imaginary play, children might purposefully ignore the present in
temporality and spatiality in favor of a more stimulating event that has already occurred. In
summary, it is important to return to Vygotsky’s concept of thought being liberated from action
during imagination, because we might also say that in the process of imagining, the child is
liberated from his or her environment. It is not unfounded to think then, that some forms of
imaginative play that take place, particularly alongside playgrounds that do not involve the
purpose-built environment, demonstrate the extent to which children dislike the play spaces provided for them.

Further evidence supports that children themselves are not satisfied with their play environments. Just as children redesign their environments using their own imaginations, they also engage in redesign in a physical sense. A 1990 study by Dargan & Zeitlin concluded that children seek shelter spots everywhere imaginable, much like nesting birds. Another study conducted in 1993 by Sobel exemplifies not just a human need for shelter, but also a human desire to build and create. Allen stressed that in creating their own spaces of play children also “develop their own ideas of play.” In a similar vein of thought, a caption in a section of Allen’s book about adventure playgrounds in England reads, “The two most important human needs are experience and control over one’s own experience.” These experiences, in which children play according to their own activities and create spaces out of their own necessities and desires, explains how at adventure playgrounds, the designs become relevant not so much in the way of product, but process. Consequently, in adventure playground architecture, design is liberated from aesthetic value. The first adventure playground leader, John Bertelsen, understood the implications of the children’s constructions, not only as evidence of a human instinct to “make and inhabit shelters, akin to nesting,” but also as a “critical reaction to the world outside the playground,” which he referred to as “junkology,” whereby social values, especially regarding pedagogy and ideas about occupation were inverted. Thus, the buildings children construct ultimately come to represent their critical interaction with a world that marginalizes them. To Gutman and Ning de Coninck-Smith, this action defines children as “social actors,” who establish a counter-culture.
Children have thus reacted to adult sanctions on their play spaces by using the imagination to escape from the physical environment and their own constructions to critique it. Acknowledging that children are dissatisfied with playgrounds and that problems regarding playground design stem from the social construct of childhood and ideas regarding the purpose of play and the place of risk, architects and those who work with children are posed with an arduous task: How might they develop a new way of looking at playgrounds that proves the necessity of redesigning them, while removing them from the problematic social and pedagogical schemata in which they are embedded?
Chapter Four: Film, Tree Houses, and Skateboarding: The Maturing Relationship Between Humans, Play, and Architecture

In this chapter, to re-think the design of playgrounds I propose identifying and evaluating other instances of the interaction between play and architecture so as to re-conceptualize the relationship between the two. That architecture meant for play is most commonly thought of as a playground signifies the extent to which we have limited ourselves in both play and architecture. Far from being something only intended for children and confined to one locale or physical manifestation, the architecture of play appears across the age spectrum, originating in childhood and continuing through adolescence into adulthood, and takes on other physical forms, as well as imaginative ones. Through these other examples of the architecture of play, including fantasy films, tree houses, and skateboarding, it is hoped to better understand what play environments represent, what they mean to their users, what users seek in their interactions with play environments, and how the interaction between architecture and play conveys deeper meaning of the architecture itself.

i. “Howl’s Moving Castle”

Interesting connections with the concept of adventure playgrounds appear in Hayao Miyazaki’s film, “Howl’s Moving Castle.” The renowned animator’s works, which are in a medium traditionally intended for children, and which usually feature children and adolescents at transitional moments in life, do not however, contain stories or themes typical of a child’s film, with Miyazaki explaining of his often serious films, “because I make movies for children I do not think it wise or appropriate to teach them despair, but that doesn’t mean that I’m going to preach to them some hope I do not have myself or some optimism that is impossible.” His own opinion of childhood in regard to his films is also rather poignant:

“childhood should be what it is for itself, and not some preparation surrendered to a future adulthood. If you can create brilliant memories when you’re a child then it’s wonderful,
because I believe that all that lies ahead for children is a boring adulthood. All children are tragic because they’re born with infinite possibilities, and really the process of childhood is about cutting off many of those possibilities. So I aim all my films at these tragic children.”

Miyazaki’s views reflect the core principle of adventure playgrounds; that children should be free to have their own fun through exploratory play in their own domain.

"Howl’s Moving Castle” begins with the image of a great animal-like mass, Howl’s castle, hissing, screeching, and trodding along on its bird-like metal talons out of the midst across an otherwise quiet countryside. It is notably composed of a countenance-like façade made up of two ovular window treatment “eyes,” a gable roof “unibrow,” and an opening and closing “mouth” with wood plank “teeth” and a metal “tongue,” breathing through its chimney stacks. The commanding castle sticks out like a sore thumb, rivaling the nearby mountains (Figure 15). The story, however, begins in a city of composite European origins, where the protagonist Sophie, a young and meek woman who works at her family’s hat shop, accidentally meets the owner of the distinctive castle, the intriguing and charming wizard Howl. That night the Witch of the Waste, jealous of the interest Howl displayed in Sophie, casts a spell on Sophie which turns her into an old woman, prompting Sophie to set out to the Wastes in the mountains where the witches and wizards live to find someone to break her curse. Along the way, she meets an anthropomorphic scarecrow, Turnip-head, who brings Howl’s castle to her as a place to stay. At first reluctant, Sophie discovers that the castle is plain and untidy inside, and meets its other two inhabitants besides Howl, a fire demon named Calcifer who stays in the hearth supplying energy to the castle, and Howl’s apprentice, a young boy named Markl.

Sophie quickly learns that the castle is able to ignore space and time, existing with multiple facades in multiple locations. The door’s portal capabilities are operated by turning a dial to the desired color (blue, green, red, or black) of a spinning wheel which correlates to a
specific location. Two of the locations are the shops of two different wizards Howl employs as pseudonyms, one location is the Wastes, and the fourth is a location only known by Howl. Visitors from the King who visit the shop facades inform Howl that he must aide in the war, which was brought on due the disappearance of a prince from a neighboring community.

Figure 15. Howl's Moving Castle.

Eventually Howl meets Sophie and is interested to see that she is able to interact so well with Calcifer. She takes on the role of castle maid and despite the arduous task of cleaning Howl's unruly home, Sophie manages to find moments of joy as she travels to places and environments she has neither seen nor experienced. Eventually, however, it becomes apparent that the tranquil life in the magical castle is not immune to the horrors of the greater world, specifically, the ensuing war. As it so happens, the fourth, black-colored portal is a black, red, and orange nebula, where Howl flies about as a large, dark-feathered avian-human hybrid in a vacuum of war and darkness, only illuminated by burning houses and villages and explosions.
As Howl’s participation in the war continues, it becomes increasingly hard for him to turn back into a human.

As it so happens, the reason Howl originally equipped his castle with place-changing abilities was to run from the Witch of the Waste, whose wrath he had incurred upon ending their romantic relationship. For this reason as well as his opposition to the war, he fears reporting to the king’s head sorceress, Madame Suliman, and sends Sophie, disguised as his mother, instead. At the palace, Sophie encounters the Witch of the Waste, whose summons was actually a trap set by Madame Suliman, who casts a spell to rob the Witch of her powers and memory. Madame Suliman ascertains the scam at hand with Sophie and Howl and informs Sophie that Howl was the last apprentice she had, commenting,

“I’d never seen such a gifted student. I was so thrilled to have finally found someone talented enough to replace me. Then, one day, his heart was stolen by a demon. He never returned to complete his apprenticeship. And from that day forward, he has been using his magic for entirely selfish reasons....That boy is extremely dangerous. His powers are far too great for someone without a heart. If he stays selfish, I’m afraid he’ll end up just like the Witch of the Waste.”

The Witch of the Waste was once a magnificent sorcerer until a demon consumed her body and soul. Threatening, Suliman says that she will strip Howl of his powers if he does not report to her. Sophie protests the news, saying that Howl has good intentions and can fix the problem with his demon on his own.

Howl comes to Sophie’s aide, and he, Sophie, and the Witch of the Waste fly off together just as Suliman attempts to cast a spell on Howl. Later when Sophie discovers Howl in an even further progressed state of monster, she confronts Howl, who has burrowed himself in a cave-like part of the castle lined with children’s toys. She offers to help him break the spell he’s under and tells him that she loves him, but he flies away into the darkness. In an attempt to learn more about his curse, she discovers that Howl’s and Calcifer’s lives are intertwined and that if one dies
so will the other. Returning to the castle as a human, Howl announces that they are being chased by Suliman and takes Calcifer to the center of the home, morphing the castle with a marking that resembles a parti diagram. The elements reassemble inside the home, and Howl makes a new room for Sophie and also adds a new portal to a lake he used as a hideaway when he was younger as a gift for Sophie. The war continues, Calcifer weakens, Suliman continues to search for them, and Howl, vowing to stop running from his problems, takes up his bird form once again. To help Howl defend the castle, Sophie changes the location of the portals again by giving her ponytail to Calcifer, who needs something of hers, and once it reassembles, the castle is smaller and piles of seemingly extraneous scrap metal and other junk fall out as it streamlines its own design. It becomes more compact and energetic, it moves faster and with more meaning, and it no longer has the barnacled appearance of years of use, but appears fresh, young, and born again.

The Witch then figures out that Calcifer has Howl’s heart, which she has so long sought after, and grabs it away from Calcifer, taking him out of the hearth and causing the house to fall apart and herself to catch on fire. To save the Witch from the fire, Sophie pours water on her, vanquishing Calcifer, and the castle splits in half. Worried that she killed both Calcifer and Howl, Sophie finds the front door sitting all alone and opens it into a dark infinity. This time, the castle door leads her to Howl’s former hideaway, and she watches the young Howl eat a star and give his heart to Calcifer, the origin of his curse. Leaving the portal, she finds Howl, now completely a monster, and asks him to take her to Calcifer.

Following the incident, the castle is no more than a plank sitting atop two legs, roaming the mountains as if it is lost. Holding Howl’s heart, Sophie remarks on its lively nature, to which the weakened Calcifer replies, “It’s still just the heart of a child.” Once Sophie returns Howl’s heart to his body, Calcifer turns into his starry spirit and exuberantly declares his freedom as
Howl awakes. Unable to stand without Calcifer, the final legs of the castle break off and the last remaining board slides down the edge of the mountain, threatening to injure all of its passengers. Turnip-head saves them all and Sophie kisses him, turning him back into his human form, the missing prince from the neighboring kingdom, who promises to end the fighting. Once the war is over, Howl’s castle is rebuilt, and this time it takes to the sky, aided by wings and a propeller engine, instead of relying solely on its clunking legs. The castle appears more welcoming, adorned with brighter, fresher colors, and gardens with beautiful flowers and trees.

For a film that originally intrigued me for its implementation of what I considered to be “playful” architecture, it has since gained deeper meaning after studying adventure playgrounds, in particular, the implementation of the adventure playgrounds in England to restore a society recovering from the ill effects of war. From a purely architectural standpoint, Howl’s castle, composed of pieces of junk arranged in a thought-out although precarious layout, draws strong parallels with the constructions children make in adventure playgrounds. To this extent, Howl’s castle is a giant adventure playground.

Likewise, architecture intended for play reveals deeper truths regarding nature and chaos. Play and its spaces follow patterns which tend toward disorder and have the potential to frighten by their sheer unpredictability. Acknowledging this manifestation in the built environment grants humans the ability to better understand their own, other’s, and society’s variability. The architecture of play thereby forms a normative role in governing interpersonal and other complex relationships, much in the same way that adventure playgrounds foster relationship building between their users.

It is also possible to relate the two main protagonists, Sophie and Howl, and their personal developments to the ideological goals of the adventure playground. Perhaps the more
dramatic example of a change in personality and outlook, Sophie blossoms in ways especially related to self-confidence, a virtuous quality frequently used to promulgate the adventure playground. Through her experience with her curse and with her time spent in the magic castle, Sophie develops a new, more positive outlook on life.

Once quiet and meek and only focused on her work, Sophie’s life before meeting Howl, being cursed, and living in the castle, was dull and seemingly without purpose. The effects of the curse, coupled with her stay in the ever-changing castle environment allow her a return to youth. Her curse enables her to become aware of the physical limitations of old age, some of which she had already imposed upon herself, but the castle facilitates her fight against it. Joining the castle and having to hold her own in all of its chaos and during the adventures it provides, she develops a new feisty spirit. Despite the possibility that her hardships would come to control and overpower her, Sophie’s new and opportunity-laden environment provided her with opportunities to learn about herself, her society, and her own unique abilities so as to further her life. Sophie’s challenges and experiences may be likened to those shared by groups of children at adventure playgrounds, who develop a greater understanding of self.

Similarly, Howl makes use of the interpersonal skills that living in the adventure playground castle has taught him. Leaving behind his solitary ways as a result of learning from the adventures he has using the castle as a vehicle and the relationship that teamwork builds, particularly with Sophie, he takes on an increasing leadership role and eventually gives up his solitary lifestyle. The same is true of Sophie, who opens herself up to friendship and love, and both she and Howl become parts of a larger system, even if at its smallest entity it is only as a couple comprised of one another. In stepping away from the conventional society in which she has not thrived, Sophie is empowered in the castle environment where she must act heroically,
conquer her fears, and fight for happiness. Howl must also make such a conscious effort to face his own shortcomings.

Ultimately, when we learn that only Howl and Sophie may break their respective curses, we see the extent to which living in the world of the castle has lent to their autonomy and decisions to value their own subjectivity. Such a subjective experience is often regarded as a positive development of the adventure playground. Eventually, the democratic values espoused by adventure playground advocates take hold of Sophie and Howl by empowering them as individuals and granting their lives a sense of meaning within a larger collective.

Aside from serving as exemplars of the positive outcomes of adventure playground users, Sophie and Howl also represent specific target-groups identified as social cases by adventure playground advocates. On the one hand, Sophie, who is emotionally disregarded by her mother and who was unable to live with her family due to monetary concerns, represents a welfare group of children to whom it was believed the adventure playground afforded “what their homes appeared to be lacking, mainly an emotionally supportive and nurturing environment.”

On the other hand, Howl represents the juvenile delinquent whom the adventure playground was intended to keep occupied. Madam Suliman, when informing Sophie of the dangers Howl’s unused talents pose, echoes the sentiments of Paneth, who believed “’A bored child is a menace to the community, especially if he has intelligence, for boredom and inactivity almost inevitably lead to delinquency’” (Kozlovsky 185). With the Witch of the Waste as an example, her utter gluttony and slothfulness and even her “wasted” title metaphorically describe the dangers of unfulfilled potential, resulting in the hooliganism associated with the renegade Howl, or children of postwar England.
However, rather than society prescribing the adventure playground or magical castle to Howl and Sophie, they seek it out and heal themselves, while becoming increasingly critical and reevaluating of their own society. Their peaceful and lively castle counters the larger society, which is preoccupied with war and its motifs and given to opulent displays of militaristic power and prowess. They are too concerned with such activity to notice the true magic that is right under their noses, such as in the form of Howl’s castle. Like the children playing in bombed sites in England, Sophie and Howl are able to rebuild their once war-torn world by first healing themselves. In investing his heart into powering the reconstruction efforts and daily operations of his castle, once he learns how to better himself, Howl is eventually able to detach from the therapeutic castle-adventure-playground-world and act as a better citizen. The fact that the heart Howl reclaims is the one of his childhood, speaks even greater volumes as to the purifying and cathartic values of adventure playgrounds.

Although whimsical, Howl’s Moving Castle illustrates the extent to which architecture is more than just a backdrop for social interactions, itself instead playing a central roll in its dwellers’ lives. The theme most indicative of this trend is the symbolic value of the castle's hearth, which contains Howl's heart and powers the living castle. Encapsulating the sentiment that home is where the heart is, Howl and the castle may be understood in a one to one correlation. Howl's emotions, symbolized by his heart, are thus the architecture itself. Such a relationship is further depicted by Sophie's gradual gain of control over the castle in the form of her interactions with Calcifer as well as the additions Howl adds to it to accommodate her, representing her amounting control over Howl's heart. Following the explanation that the castle parallels an adventure playground, we might then infer that when they build, children literally invest a piece of themselves, specifically their hearts, into their constructions. Derived from
their imaginations, informed by and informing their emotions and development, the architecture of adventure playgrounds embodies the being who created it. Instead of being static and inanimate, architecture built by children for and during play contains an energy like the roaming castle, which holds the spirit and personifies the character of a child.

**ii. Tree Houses**

**Tree House**  
A tree house, a free house,  
A secret you and me house,  
A high up in the leafy branches  
Cozy as can be house.

A street house, a neat house,  
Be sure and wipe your feet house  
Is not my kind of house at all--  
Let's go live in a tree house.

Shel Silverstein

In his poem “Tree House,” Shel Silverstein neatly describes the charming qualities of a tree house, referencing a tree house’s freedom, privacy, alternate vantage point, simple and comforting nature, and design for fun. Investigating a type of architecture used for play that encompasses an even broader range of ages than skateboarding, tree houses are of relevance to this study because of their lengthy history, simultaneously practical and whimsical nature, and most of all, the extent to which they are manifestations of human emotions in physical form.

Historically, the basic components of the tree house may be seen in the nesting patterns of chimpanzees and orangutans, and famous accounts of tree houses also appear as inhabited by notable figures of western civilization, such as Emperor Caligula who held banquets in a tree house and the Medici family of renaissance Italy, who had a small marble palace in a tree. In 1848, a popular place to spend the weekend was located eight miles outside of Paris in the town
of Robinson, where Joseph Gueusquin built a restaurant in a giant chestnut tree. This development, as well as the town’s name, was fueled by Jonathan David Wyss’ novel Swiss Family Robinson from 1812-13. Following Gueusquin’s lead, others began making similar tree house restaurants to capitalize on the market. Aside from influencing atmospheric restaurants, tree houses have also been used for shelter. To this day, the Korowai tribe from Papa New Guinea continues to live in tree houses.

Over the years, tree houses have taken on something of a romanticized existence in part due to their fabled depictions in literature, film, and popular culture. These works include A.A. Milne’s Winnie-the-Pooh (1926), J. M. Barrie’s Peter Pan (1911), the aforementioned Swiss Family Robinson (1812-13) by Wyss, Edgar Rice Burroughs’ Tarzan of the Apes (1914), and even in George Lucas’ “Star Wars: Episode VI- Return of the Jedi” (1983). Firstly, these stories appeal to the human desire to connect with nature, in the instances of the Robinson family who, although finding themselves shipwrecked, manage to survive by building an elaborate tree house, and Tarzan, a human raised by apes in the African jungles, who, having spent his early life in the trees, has a close relationship with the natural world. Secondly, in these themes of nature and the personalities of some of the characters, themselves, the notion of tree houses as a place of peace and relaxation reveals itself. For example, the beloved children’s character, Winnie-the-Pooh is a teddy bear who belongs to a boy named Christopher Robin and lives inside a tree. By nature, Winnie-the-Pooh is by nature laid back and friendly, enjoys eating and spending time with his friends, and other books such as The Tao of Pooh (1982) by Benjamin Hoff have used these traits to elucidate his place as a great philosopher. Pooh Bear’s desirable qualities and pared down lifestyle may well in fact stem from his simple home.
Thirdly, in the characters, plot developments, and intended audiences of these stories, it becomes evident that tree houses encompass childhood. That Winnie and the entire One Hundred Acre Forest is a construction of Christopher Robin’s imagination also verifies that tree-dwelling and its associated adventures hold strong ties to children. Such an association is the main theme in Peter Pan, where the spritely boy Peter and his band of lost boys live in the magical Neverland in tree house communities and manage to escape growing up. The tree houses serve as physical reminders of the boys’ youth. Finally, accompanying these themes of youth are often elements of fantasy and magic. Outside of the impossibility of a living teddy bear or a boy who does not age, movies like George Lucas’ Star Wars series have used tree houses as dwellings for mythical creatures like the Ewoks. A fixture in more recent children’s literature includes The Magic Tree House series by Mary Pope Osborne, in which two children go on adventures in a magic tree house to solve mysteries. Beginning in nature and informing mood through inciting respite, tree houses have eventually become symbols of youth and the fantastic.

Though perhaps most often envisioned as a place for children, or at the very least as a place which symbolizes childhood, there is a strong culture of adult tree house builders. There is an annual Treehouse Conference in which tree house designers, builders, owners, and other enthusiasts, engineers, and arborists meet to discuss new technologies in the field. For example, Charlie Greenwood is credited with designing the GL, a structural support capable of carrying the weight of a Ford truck, which is “unquestionably the most important technology to come out of the Treehouse conferences” since the organization began in 1997. With adults working to design increasingly elaborate tree houses that make use of such technological advances, modern tree house architecture stands as an interesting construction of time, as childhood fantasy is
realized upon intersecting with the adult “real” world. There are now resort and vacation
destinations such as the Sanya Nanshan Resort and Beach Club in Sanya City, Hainan Province,
China comprised of tree houses and companies like the French-based La Cabane perchée tree
house design firm, which works for private and resort clients and has built more than 350 tree
houses. Alain Laurens, who runs La Cabane perchée, quotes one client who went so far as to say
that his tree house “reawakened [his] childhood dreams.”10

In addition to adults fulfilling a childhood dream with tree house construction, interest in
tree houses in all ages may be attributed to several factors. One such factor, as evidenced in the
aforementioned discussion of themes in works including tree houses, is the lure of a quiet place
intended for escape, which might also explain the increasing popularity of resorts that feature
tree house accommodations. In reading designers’ descriptions of their tree house projects based
on client- needs, this theme became readily apparent. One tree house was meant to be a place
where a fifteen year-old girl “could escape with her friends and talk or have sleepovers.” A boy
named Sam planned “to use the place to get away and be by himself.” A retiree wanted a place
separate from her house “where she could escape and pursue her passion for watercolor
painting.” Another tree house was “designed to be a relaxing getaway- a place to take one away
from the worries of the world.”11 Clark summarizes, “it is very difficult to be stressed in a
treehouse.”12 This stress-free environment is a direct result of a tree house’s remote location,
which can vary according to a tree house’s height above the ground and whether or not its stairs
are fixed or able to be raised and lowered. Additionally, the vantage point a tree provides its
inhabitant is significant because it emphasizes that he or she is away from their daily life’s
monotony and problems, even metaphorically “above it.” It is a curious circumstance that
through isolation, a tree house might eventually promote positive communication and
interactions between people by allowing its users to experience instances of quiet reflection and relaxation, thus putting themselves more in touch with their own feelings and emotions and bolstering interpersonal skills.

The other and perhaps most primary reason that people are drawn to tree houses is the connection they have with trees and nature. Among the treetops, the inhabitant enters a new realm, and Laurens observes that tree houses have, “a sort of bravado with respect to the laws of gravity, thumping its nose at the serious side of life.”\textsuperscript{13} Particularly in regard to a tree’s height, humans are drawn to tree houses because they are drawn to nature and the tree itself. Explains Nelson,

“I build treehouses because I want to share in the energy of a strong, healthy tree… I just like to be around trees. After all, anything that can stay in one place and get everything it needs to grow and be strong is amazing…This is the real reason we all have been drawn to treehouses. It is the allure of the tree itself.”\textsuperscript{14}

Further elucidating the inspiring aura of a tree, the poet Joyce Kilmer famously writes, “I think that I shall never see/A poem lovely as a tree.”

Trees are rather virtuous creatures. They stand taller than most humans ever will and live much longer than us, too. They are tall, but not necessarily imposing, playing a comforting, almost guardian-like role toward us. They give us shelter and shade, and their quiet strength offers our landscape a bit of stability. In these ways, trees provide something like what we value in friendship. Roderick Romero, a multi-media artist, tree house architect, and builder, lets the nature of the tree inform the design and construction of a tree house, going as far as to say, “I try to let the tree communicate with me and I communicate with the tree. The tree tells you where to move and what your boundaries are, where you can stress things, and what direction you can go.”\textsuperscript{15} Through tree houses, we establish a symbiotic relationship with trees, and while Laurens states that “the cabin is man’s response to nature, not its imitation,”\textsuperscript{16} I would further state that
the tree house is man’s attempt to become part of the tree upon his realization that he cannot be
the tree. Just as we seek unity in our relationships with one another, we do the same with trees,
and subsequently nature.

Other forms of emotions associated with tree houses redefine the nature of space itself. Laurens explains the wealth of experiences a tree house can provide, offering, "The treehouse is the heaven’s floor, and on that floor I waited all day…To finally learn what the sky tastes like.”17 To this extent, tree houses are regarded as not only buildings, but also as vehicles to fulfilling our
dreams and answering our questions. In holding our hopes, dreams, and desires, some of our
strongest emotions associated with success and failure, tree houses provide metaphorical shelter.
With a spirit of the fantastic and otherworldly stemming from relations between their physical
location and traditional metaphors for the supernatural, tree houses also insight emotions
pertaining to spirituality and questions regarding a human’s own existence. Explains Laurens,
“hovering between heaven and earth, the shelter soars high above the ground. Here, you pause
and reflect between the diviner and the divine.”18 These questions regarding man’s own
mortality further manifest themselves in the extent that tree houses themselves are relics of
childhood. Take for instance Steve Rondel of Redmond, Washington who built a truly
remarkable tree house, but was unable to complete the masterpiece before his three children
grew up, despite having started the project when his oldest son was five years old after they had
taken a trip to Disneyland (Figure 16).19 It is not unfounded to consider the possibility that to
Rondel, the tree house symbolized his own children’s youth, and that drawing out the
construction process was a subconscious effort to keep them young. Even the nature of
constructing a tree house, that one must continue on, taking the branches as they come and
letting that influence the product, speaks to development and the aging process on a symbolic level.

Figure 16. The Rondel tree house.
Ultimately, tree houses are architecturally significant in regard to play because their very existence is based purely upon emotional needs in humans. First created as an attempt to unite with nature, children and adults desire tree houses as a place to escape and rest. Adults further admire tree houses because they associate them with positive experiences from their childhoods. These strong feelings therefore greatly influence the design of tree houses, because it becomes necessary that the design fulfill all the emotional needs humans associate with trees, such as a design that simultaneously respects the tree’s life, creates a cozy place of escape, and potentially realizes the aspirations of childhood. In displaying the desire for relaxation and ease in play environments, the need for emotionally stimulating and comforting spaces, and the human inclination to the natural world, tree houses manifest the importance of play spaces which acknowledge that in play, a break from reality must transpire and that the play space itself should acknowledge this break with its architecture and facilitate it through an emotional empathy between structure and user.

iii. Skateboarding

Skateboarding has become so widespread that you have probably encountered the activity in forms ranging anywhere from young children trying to establish the basics of skating in a driveway, to more advanced adolescents doing complex tricks in an urban environment. You might even be aware of skating legend, Tony Hawk, or have seen the X-Games on television. While first seeming only like a play activity which tests balance, in paying closer attention to the history and principles of skateboarding, further meaning and importance especially in regard to architecture can be extracted. The founding of skateboarding conveys the capabilities of youth, the evolution of skating styles explains the constant interaction between man and architecture, and the lifestyle accompanying skateboarding illuminates the extent to which play continues to
be important in later life and informs social relationships. Through analyzing skateboarding, the human need for engaging play architecture becomes more apparent.

Skateboarding is an activity quite literally developed out of youths reinventing other tools, as the predecessor of the skateboard is the more traditional scooter. The first hybrid of the scooter and skateboard, the three-wheeled ‘Skooter Skate,” appeared in the 1930s. It then morphed into a 2 x 4-inch plank of wood, an apple crate, and a single roller skate, which originated in California in the 1930s-50s, all of which was assembled by children. Eventually the scooter quality of the previous iterations was abandoned, and the first modern skateboards appeared in the mid- to late 1950s in the form of wooden 2 x 4s.20 One man described the invention of the skateboard as occurring in 1961 in his neighborhood, explaining, “We took an old metal roller skate and strapped it to a short piece of 2x4, hopped on top and took off.”21 Instead of toy companies producing the next hit toy, children had made it for themselves. Manufacturers took notice and the first commercial skateboards were available for purchase in 1959.22 Although we do have these rough guidelines, the spotty nature and general lack of a definite early history of skateboarding goes hand in hand with the carefree nature of its child designers, the invented aspect of the implement used for skateboarding, and the counter-culture now associated with the activity.

Imagination was required to develop the sport, but was even more necessary to progress it. What was originally a re-interpretation of materials resulted in a constant re-interpretation of environment and architecture. The first records of skateboarding are most often associated with the West Coast of the United States, and when improvements in wheel design led to easier turning, the first skateboarding activity primarily focused on riding down hills, emulating the California surf culture of the late 1950s and 1960s.23 An example of this early spirit of
skateboarding can be viewed in the Australian band, Youth Group’s music video for their 2005 cover of the song, “Forever Young.” The footage, taken from a skateboarding event in Australia, features a wide range of children and adolescents as they slalom their way down hills. Almost as important as the skateboarding are the clips of the skateboarders in their resting time. The song’s message of retaining youth is typified by children, mainly boys, with highlighted bowl cuts framing clear eyes, who are enjoying a lazy but active afternoon with friends, proudly displaying their battle wounds, having a few snacks, and sharing laughs and smiles. Darting in and out of each other’s paths with what can only be described as a careful reckless abandon, the youths add energetic lines to the hills of an otherwise open and still landscape, peppering it with color.

This earliest form of skateboarding involves reinterpreting an environmental fixture, the cement hill, by transposing the elemental properties of another, the wave, onto it. Michael Brooke’s appropriately titled book, The Concrete Wave: The History of Skateboarding (1999), elucidates this morphing quality of skateboarding, which was originally called “sidewalk surfing” (Figure 17).24 Skating and surfing were so closely linked that the skating was primarily meant to practice surf moves25 and skaters described their activity with the same terminology used in surfing.26 Using play, motion, and imagination, the first skateboarders created an alternate reality to the natural environment through a process of reinterpretation. The architectural historian Iain Borden characterized this phenomenon as “an attempt to produce from second nature those things which become scarce in capitalism,”27 but I think it more accurately produces those things which become scarce in childhood, namely, engaging play spaces and freedom.
As skateboarders sought to conquer new territories, they continued to redesign the skateboard and investigate new architectural forms. In the late 1970s, for example, skateboards became larger to provide more stability for skateboarders who progressed from sidewalk surfing to riding the vertical walls of pools. Although the origin of pool skating is usually attributed to Gary Swanson, a doctor who first skated the curves of his pool in 1963, a further explanation for the proliferation of the new style of skating is attributed to a drought in California that left pools empty in the 1970s (Figure 18). On the one hand, pool skating illuminates the territorial disputes which characterize childhood and play through children occupying new spaces unintended for them, sometimes even through trespassing. On the other hand, it also demonstrates the yearning of children to have new experiences with architecture and space. Borden describes the interaction of skateboarder and pool as occurring in two engagements, the
first being perceived experience, during which the skater “encounter(s) the wallness of the wall” as the surface of the pool changes from horizontal to vertical, and the second being the materiality of the pool’s “pure surface.” These two engagements combine to offer the skater a new “body centric” experience as they move through space.\textsuperscript{32} This experience of smooth surface and morphing ground continued to attract skateboarders, who also turned to skating large pipes, like those with 20-22 foot diameters in Arizona which were part of a U.S. federal water project (Figure 19). The experiences of space in these pipes are even more heightened than in pools because pipes have no flat surface and their spaces are more compressed. Borden posits that such elements drew the skateboarders’ attention because of their “appearance as second nature” and seemingly ancient qualities as members of wastelands and unused spaces.\textsuperscript{33} Thus, in exploring new uses for the unused elements of society like empty swimming pools and abandoned public works projects, skateboarders both expanded their physical territory and personal experiences of space.

![Stacy Peralta pool skating](64)

Figure 18. Stacy Peralta pool skating.
In addition to these new, hyperbolized experiences of space, even the act of simply riding a skateboard on even ground results in a new version of existing in space. Riding on the board, the skater experiences movement in a new manner, as a combination of speed and the negotiation of new factors aiding and hindering movement. For example, most people do not have to worry about cracks between cement on the sidewalk as they walk, but skateboarders must compensate for such minor street details as they ride. In addition to this bodily experience, skateboarders see the world from a higher perspective and hear new sounds of wheels rolling on the pavement while they ride. Moving around, the skateboarder experiences a new relationship with the world, as he or she moves through it on their own little piece of unsteady ground, the skateboard. Through this version of perceived space, skateboarding redefines our grasp of time and occupation.

Figure 19. Pipes in the desert.
Another influential change in skateboarding occurred during the 1990s when decks became longer and narrower, resulting in lighter boards which facilitated the already-increasing popularity of a style of street skating focused on performing flips off of the ground and slides on rails and curbs. Street skating was also furthered by smaller wheels, which created a lower center of gravity, made flips easier, and resulted in greater speeds and faster acceleration. Street skating ultimately led to reinterpretations of the built environment, particularly the city. Skateboarders first shifted their focus to the city street in the 1980s and the city itself began to take on new meanings and possibilities, becoming a skater’s playground. Legendary skateboarder Stacy Peralta explains, “‘For urban skaters the city is the hardware on their trip.’” In street skating, skateboarders subvert the fundamental meanings of architecture. To a skateboarder, stairs are not for moving from one place to another. They impede movement instead of facilitating it, serving as an obstacle to be jumped instead of a primary means of conveyance. Hand rails, which are normally meant to help secure people as they move up and down stairs are used by skateboarders to help them slide and fall, the very opposite of their original function (Figure 20). Instead of curbs hindering movement between street and sidewalk and defining the two regions as distinct, skateboarders use them to float between the two, confusing their bounded relationship. Inconsequential street elements that most people ignore as they make their way through the city, like electrical housing, trash cans, and water fountains, become prime pieces of focus for skateboarders, who use them as obstacles to jump over and elements to propel further tricks. As others rush past them, skateboarders move purposefully from one of these elements to the next. Skateboarders even put public sculptures to work, proving their usefulness as more than just a marker or thing of beauty in the landscape (Figure
21). With imagination and curiosity, skateboarders see our architecture anew, reconstructing the purposes of space and form.

Figure 20. Pat Stiener grinds down a railing.

The trajectory of skateboarding followed a path of first reinterpreting nature, then spatial experience, and finally the meaning of architecture. In doing so, the resulting phenomenon created by youth is essentially the opposite of “islanding.” First, by creating skateboards, children made themselves mobile; one of the primary uses of skateboards then and now is as a means of transportation. This first usage, whereby children could travel faster and more widely than before, lends itself to the next two outcomes of skateboarding. The first of these outcomes is
that with mobility, children became widely dispersed. In skateboarding, particularly in the very first forms of “sidewalk surfing,” children became part of the very fabric of the landscape, re-inhabiting the streets from which playgrounds had sought to remove them. Secondly, with children’s mobility and visibility came their audibility. Of the earliest days of skateboarding writes one man, “It was so new, the parents and neighbors didn’t even know what to make of it. But they sure knew we were there. Those wheels made a hell of a racket, especially when they needed oil!”38 Using skateboarding to define their play as an unbounded environmental experience, children and adolescents who skateboard actively combat “islanding” by making themselves and their unrestricted play seen and heard.

Figure 21. Eli Reed nose bombs off a monument.
Later iterations of skateboarding also counteracted “islanding” by children seeking experiences outside of those created by adults within the “islands.” Riding pools and pipes, stairs and railings, skateboarders continue to look for new possibilities in playful interactions with architectural forms. These interactions further compounded adult issues with risk and safety, making an empty pool possibly more dangerous than one filled with water, and simple movements through urban space increasingly unstable. Through this reversal of “islanding,” power struggles between adults and children intensified. In cities especially, this inhabiting of previously empty space became a greatly contested development, with marks and scratches left behind by skaters signaling to one another the suitability of a location for skating, and the defacement of property to non-skateboarders.\textsuperscript{39}

One particularly important aspect of skateboarding is its curious nature between something of an activity and a lifestyle which exacts a radiating influence on its participants. In the process of reverse “islanding,” skateboarders developed the basis of their counter-culture. This subculture is primarily composed of youth, with most skateboarders between the ages of 8 and 18,\textsuperscript{40} and they are easy to identify by their shared dress, which, coupled with other aesthetics surrounding the design of skateboards and skateboarding movies and magazines, has given the group an element of cohesion and stability.\textsuperscript{41} These semiotic markers of the culture became even more pronounced as skateboarders took themselves out of hiding in pools and suburban streets with the styles of sidewalk surfing and pool riding, and went into full visibility in public space to street skate. This increased visibility coincides with their rejection of society because skateboarding in the city is a “reappropriation of the adult realm” and undermines city space as an adult space meant for serious business.\textsuperscript{42} The dominant culture, in this case primarily composed of adults, tries to counteract the activity of the skateboarding subculture, by using
security guards and signs reading “No Skateboarding” to outlaw skating and remove youth from their space. Skateboarders, however, have continued to skate, with the activity taking on an additional role of protest aside from its central theme of architectural reappropriation. The self-awareness in skater-initiated counter displays such as, “Skate and Destroy,” “Skateboarding is Not a Crime,” and covering “No Skateboarding” signs with mass-produced “G” stickers, turning the message into “Go Skateboarding,” clarifies that in skateboarding, especially street skating, skateboarders redefine and critique not only architecture, but also the society which produces it (Figure 22). Fundamentally, skateboarders have sought to preserve their right to play.

Figure 22. A skater poses ironically with a sign banning skateboarding in Japan.

In understanding this crucial aspect of skateboarding, we are better able to assess the inherent differences between skateboarding in found space and in purpose-built skate parks. Skate parks originated in the 1970s, but their first forms were considered uninspiring by skateboarders who did not enjoy their long, linear runs, which were designed by people who had no experience skating or watching skating (Figure 23). The skaters complained that the skate
parks did not have the same challenges as pools and pipes, and because of this, designs in the late 1970s improved and borrowed techniques from pool construction. As a result of their dissatisfaction, skaters also started designing their own purpose-built skating elements, half-pipes and ramps, around 1977 as additions to skate parks. Skate parks were usually private business ventures that were sustained by membership fees, but by the early 1980s, many skate parks were bankrupt and demolished as membership declined and insurance premiums rose. Coinciding with this decline of places meant for skateboarding was the rise of street skating. Today, large skate parks, such as the Vans Skatepark in Orange, California still exist, but as Francisco Vivoni explains, they are primarily centers of branding and commercialism.

![Figure 23. A linear skatepark model.](image)

In purpose-built skate parks, the very nature of skateboarding is compromised. This is probably best encompassed in the continued debate as to whether or not skateboarding is a sport. Sports, it should first be mentioned, might be games, but may not be considered play by our
definition because of their competition-based and goal-oriented nature. Although skateboarding requires a great deal of athleticism, I would argue that because of its spontaneous, intrinsically-motivated, process-based, and fun nature, that skateboarding is not a sport, but instead a form of play. Here there emerges a structural dichotomy between skating in found space and skate parks. Skate parks, which encourage and are most often used for competitions, are places for sport, while street skating is a form of play.

Skate parks, on the one hand, take away the challenge of repurposing elements in your own way. Exciting skateboarding rests upon the creativity of the skater, who with a degree of artistry, determines new and unique ways of moving through and experiencing space by re-interpreting the built environment. The specialness of the act is further taken away in skate parks because of the extent to which they produce skateboarding in large amounts. The individuality of a skater is obscured during large volumes of simultaneous skating. Furthermore, skateboarding in skate parks places value on the spectacle of the event itself, especially in big aerial tricks, whereas street skating regards smooth style in high esteem, as skateboarders seek to make the complex appear simple by gracefully flowing through intricate series of tricks. On the other hand, skate parks take away the element of protest that underlies skateboarding. Skate parks may be seen as skater enclaves which separate skateboarders from society and the built environment. In a process of re-“islanding” skateboarders, skate parks undermine the special interaction between man and environment in skateboarding.

In differentiating between skating in skate parks and found space, the importance of the human and environment interaction in skateboarding takes on a clearer meaning. At the heart of this interaction is the desire to have fun through play stemming from individual creativity. This creativity involves reinterpreting architecture in its inherent form in sidewalk surfing, its
materiality in pool skating, and its meaning in street skating. Just as creativity and athleticism combine in skateboarding, people look for spaces that engage them physically and mentally in play. The architecture sees new purposes outside that for which it was originally created, leading to new possibilities in its forms and uses, and the skateboarder sees new possibilities as to his own cleverness and physical capabilities. What ultimately happens in skateboarding is that skateboarders and architecture continually challenge one another to progress, and as much as the skater needs the architecture for his play, the architecture needs the skater to rethink its meaning. Skateboarding, with its ebb and flow of play relationships, thus illustrates that play spaces are not simply backdrops for play, but inspire and benefit from play activity.

iv. “Inception”

Just as tree houses designed by adults reflect fundamental human desires that span ages and time, films also depict architectural desires. Constructions in the film “Inception” are playful to the extent that they represent the most creative imaginings and dreams of the people designing them. Much like in child’s play, in the dream world, the dreamer's highest hopes and aspirations as well as the dreamer's darkest fears and worries are the plans for architecture. Christopher Nolan’s science fiction thriller “Inception” (2010) illustrates how architecture enhances our perception of not only our existence in a physical way, but also in a spiritual, emotional, and interpersonal dimension. The film depicts a world much like our own except in regard to dreaming. The protagonist, Dom Cobb, can extract information from people by invading their dreams as they sleep, robbing them of their subconscious’ guarded secrets through a method known as shared dreaming. He is asked to perform the inverse operation, inception, the act of planting an idea in someone’s head, and while others dismiss the offer as an impossible task, Cobb accepts the offer and later explains that he has once conducted a successful inception.
Cobb visits his children’s grandfather, Miles, who works as an architecture professor, and who taught Cobb how to navigate people’s minds. He is reluctant to help Cobb by providing him with an architect for the dream world, but Cobb insists that it is “the chance to build cathedrals, entire cities, things that never existed, things that couldn’t exist in the real world” and that there should be students interested in such capabilities. Miles eventually recommends his student, Ariadne, to Cobb, who takes her into a shared dream. He explains the design process to her, in which she creates the dream world, and the subject fills it with his subconscious. The two walk around studying the realness of the situation and to let her practice, they leave the dream and re-enter another where she is the architect.

Ariadne enjoys all the possibilities the dream world affords her as an architect, from changing the physics of the world by stacking buildings on top of one another so that their sidewalks are parallel and constitute a containing element, to destroying glass walls with a single touch and building footbridges as soon as they are needed (Figure 24). Cobb is impressed by her imagination, but explains to her that if the dream world seems too unrealistic it can have dangerous implications for her. Since the dreamer populates the world with his or her own subconscious projections, if the dreamer feels like he is in a dream due to its unrealistic built environment, the projections will act upon this foreign nature, attacking the dream’s architect. Heeding Cobb’s advice, she recreates exact locations from the physical world, but Cobb explains that this is also dangerous, yelling, “building a dream from your memory is the easiest way to lose your grasp on what’s real and what is a dream.” Suddenly, because the world is too real to Cobb and stimulates strong emotions regarding a woman from his past, his projections surround Ariadne, swarming her in an angry mob. The woman from Cobb’s memory, his dead wife, Mal, runs up to Ariadne and stabs her. Ariadne awakes, horrified by Cobb’s subconscious.
Eventually Ariadne learns of Cobb’s dependence on the dream world. As it happens, his
dreams are actually memories which he uses as a means to keep his wife “alive.” Later while on
the mission, Cobb and Ariadne travel to the lowest dream level, Limbo, where Cobb and Mal
were once trapped while dreaming. Together they built the strange city, filling it with buildings
that were reconstructions from their memories (Figure 25). In one building where Cobb and Mal
lived, Cobb and Ariadne find Mal, still just a construction of Cobb’s subconscious, who has
stolen a key component of their mission in an attempt to thwart Cobb.

In this instant, Cobb admits to Ariadne that when he and Mal were trapped there, Limbo
became Mal’s reality, and because she did not want to leave, he incepted her. To get her to
commit suicide in the dream world with him so that they could wake up from it, Cobb planted
the idea in her head that her world was not real and that death was the only escape. The problem
which Cobb didn’t anticipate was that once they made it back to reality, Mal continued to believe
that her world wasn’t real and committed suicide in the real world. Besides feelings of never-
ending guilt, the event also created the legal battles for Cobb, since Mal made it appear as though
he had killed her. Here in Limbo, Mal tries to convince Cobb to choose this level of the dream and her as his reality, but Cobb finally breaks free from the ghost of his dead wife, accepting that she doesn’t exist, that his subconscious creates her, and that for these reasons he cannot stay with her.

Figure 25. Cobb and Mal in Limbo.

The film first demonstrates the extent to which we associate our feelings strongly with place. Ariadne, during her first time as a dream architect confesses that she originally thought the legitimacy of her construction would depend upon its visuals, but she instead generalizes that it is about “the feel of it.” In other words, the appearance of the world is not as important as the general impression it gives its inhabitants. We learn that Cobb, a once great dream architect, is no longer capable of designing dreams because his subconscious projections, in the form of an enraged wife, botch his missions since they are able to navigate his design, thereby sabotaging his tasks. He is unable to separate his constructions from his overpowering emotions. In his dreams outside of his missions, Cobb uses memories to create a prison of sorts for his wife. By recreating places from his memory, the vivid nature of the dream as brought on by the architecture, heightens the legitimacy of his feelings because they are rooted firmly in place.
The true power of emotion associated with architecture is most apparent in the world Cobb and Mal created together out of places from their past and their own dreams. By clinging to the feelings contained in places from their past, the two were able to make life in a void and barren land seem real, so real in fact, that it lead to Mal’s death because she was unable to differentiate between what was real and what was a dream. In dreaming, when emotions are heightened and the physical environment seems all too real, it is impossible to ascertain one’s state of consciousness. Ultimately, the viability of the dream world rests in its ability to feel real without directly mimicking any specific place tied to emotions. It can be said that the building which goes on in shared dreaming is essentially play because it is founded upon a loop between creating and perception, like the loop created by rules and imagination in Vygotsky’s theory of the imagination.

The only limiting factors to the play of shared dreaming are emotions brought on by architecture. In “Inception,” architecture reifies fleeting emotions and memories. It straddles time and people, bridging past and present to construct an alternate reality so strong and viable that it has the demonstrated ability to alter lives, having caused Mal’s death and Cobb’s tortured existence. For Cobb, the act of building in his dreams becomes a form of escapism and a means of acquiring his impossible longings. His constructions simultaneously house and are his former life with his wife. Aside from the personal struggle Cobb and Mal face with their dream architecture, the general rules in constructing that apply in the dream world offer further curious symbolic evidence of the complex relationship between emotions, imaginative play, and architecture. As witnessed in Ariadne’s first dysfunctional encounter with Cobb’s subconscious in her dream world, the dream architect must learn to navigate between what is too wild and impossible and what is true memory. These two scenarios converge in the film in the form of
Limbo, where Cobb must relinquish an impossible scenario for his present because it is built from memory. In rejecting the surface level meaning of his projected wife, Cobb simultaneously rejects the built environment constructed of his longings and memories, forgoing the unattainable.

Likewise, in the real world, architects are imparted with the responsibility of negotiating the line between dreaming and reality. Architecture is meant to engage its inhabitants by sufficiently blurring the impossible and the ordinary. This is exactly what occurs in places of play, whether it be a child’s playground, a skateboarder’s street, or an adult’s or a child’s tree house. All of the users seek places of play where their experiences can be real, but based in the fantastic. This is ultimately what occurs in play, where the player straddles the mundane and the imaginary to create novel and inspiring circumstances. Based on emotional needs, children and adults crave play places that stimulate without overpowering their senses. Thus, architecture that fails to engage its users by realistically pushing conventional bounds traps its inhabitants in a state of emotional limbo. Since its own nature must be lively and spirited while aware of its relationships to the emotions and capacities of others, it may be said that the architecture meant for play simultaneously engages in the act itself.
Chapter Five: Conclusion

Observing the interaction between architecture and play in these four new and widely dispersed ways allows us to revise the function of the architecture of play, which is best understood through the themes of emotions and interactions which categorize the four examples. First, it becomes evident that the constructions formed in instances of play are emotional responses. The castle in “Howl’s Moving Castle,” represents a child and in doing so, explains the emotional value we place on spaces of play. Tree houses depict our emotional needs for nature, rest, and the ability to recount memories, as well as our emotional reliance on architecture that comforts and protects us. Skateboarding characterizes the emotional necessity of freedom in play and the pursuit of individual creativity. “Inception” encapsulates the human need for stimulating play spaces and how architecture must be aware of this. Second, the architecture of play reveals itself as interacting with its users just as its users interact with it. “Howl’s Moving Castle,” which literally walked, interacted with its users and was created by the interactions its owner had with it. Tree houses fulfill the emotional needs of its users by acting as a guardian and confidant. In skateboarding, architecture engages and interacts with skateboarders in a continuous exchange, whereby the two inspire one another to adapt. Finally, in “Inception,” that the architecture’s interactions are informed by the emotional states of its users explains that architecture also plays.

In combining the emotional and interactive qualities of the architecture of play, we ultimately come to appreciate this architecture as a living entity which interacts with us much in the same way as a human. Acknowledging these living traits of architecture, I propose that future design meant to accommodate children and their play treat the architecture as though it were a person and, furthermore, a peer as opposed to yet another authority figure. Especially in
analyzing the relationships between humans and architecture occurring in tree houses and skateboarding, a pattern of friendship emerges when play and architecture combine. Tree houses in their physical form of combined height and strength take on a role akin to a protector and provide a supportive and nurturing role to their inhabiting friends. The way a skateboarder engages with space based on how his body relates to it and its material qualities takes on the form of one of the most rewarding types of relationships, one where the two parties are similar enough to stimulate friendly competition. The skateboarder and the architecture find fun and excitement in challenging one another to perform and evolve. In this act of care established during play, humans and architecture have established an empathy with one another. This empathy is perhaps most directly witnessed in the relationship between skateboarder and architecture, whereby in befriending the architecturally downtrodden and ignored, the skater is in turn treated with equal respect and significance by the architecture, which continues to provide novel circumstances for the skater through its own evolution.

When architecture takes on the role of a friend, the results for children and their play are numerous. For example, treating playgrounds as a child’s friend raises questions of suitability, which can enhance a child’s play and fun. Is a playground engaging, age-appropriate, and friendly? Does it stimulate and challenge the child? Does the child want to “hang out” with it? These first questions as to the interaction and level of engagement between child and architecture counter the fundamental historical meanings of play architecture. Through “islanding,” the architecture of play has been generally interpreted as a place for children to go and spend their time on or in structures. In viewing alternate forms of the architecture of play however, it was shown that the interaction is mutual and that the playground should be far from a static entity.
Just as much as children are meant to play with playground features, the playground is meant to play with children.

This method of approaching the design of play environments carries large implications for children. When children avoid playgrounds out of disinterest or fear, they lose the rich benefits of play including, but not limited to, physical fitness and development, emotional learning, interpersonal skills, and of course, fun. In addition to these developmental needs, playgrounds, especially when associated with schools, can impact how children feel towards school itself.¹ The architect Moore understood the importance of developing positive connections between humans and environment, making note that "it is important that people feel a strong attachment to the places where they have to spend so much of their time. Without this ‘sense of belong’ we feel alienated, unhappy, unable to work. This is especially true of children."² Evidence for the need for children to feel comfortable in their environments further presents itself in the way of learning capabilities, with “the deeper levels of learning,” like pattern recognition, oral and written language development, and symbolic reasoning, occurring only when a child “feels secure.”³ If children are to develop properly then, it becomes imperative that their architectural environments nourish them emotionally and foster play through functioning as playmates.

Now more than ever, it is a pressing concern that playgrounds be places with which children want to spend time and play. Data indicates that within the past twenty years the number of children in the United States between the ages of two and five-years-old who are obese has increased threefold,⁴ and providing children with stimulating environments in which they can participate in physical activity is one way to combat such worrying trends. The need for engaging playgrounds is further compounded by the prevalence of electronic media and
technology whose “interactive games may be so engaging that children, mainly boys, abandon other activities.” It is sad and discouraging to find that electronic environments have become more engaging than the physical world, and it is my hope that by re-designing playgrounds to be more interactive experiences we can stave off and lessen electronic use. Creating friendlier and more interactive playgrounds would thus bolster even the most basic interactions between their users and the environment. If we design architecture as a friend, we truly have the ability to enrich children’s lives.

In addition to facilitating greater volumes of play by becoming engaging, viewing play architecture as a friend should expand and better play itself. Chapter Two illuminated that not every play environment incites the same type of play. When the elements of all four playgrounds are combined, new opportunities for play can eventually improve a child’s sense of self as well as the interactions between children. By providing children with architecture that allows them to play in multiple ways and to excel and participate in activities of their own choosing, it is my belief that from an early age, children can become more tolerant, curious, and confident individuals. Furthermore, as much as the architecture of play should provide a wide variety of play activities, it should also allow children to develop new types of play. Like the interaction between architecture and skateboarder, playgrounds should function as an open and encouraging friend. In short, diversity in play environments results in diversity in play and individuals.

Aside from creating architecture which acknowledges and aids play because of its developmental importance, if anything, the emotional necessity for friend-architecture should be grounds for re-design following this principle. More than being a purely symbolic way of approaching playground design, quantitative results solidify my assertion that architecture take
on the role of a person in regard to its potentials as a playmate. Researchers in Finland have found that six- and seven-year-olds seek out six different emotional worlds when asked what sort of environments they would like to be included in the design of a playground. These worlds include scariness, happiness, care, aggression, excitement, and amusement. The children’s responses encapsulate strong positive emotions associated with friendship, as well as strong negative emotions which friends navigate and experience together. Thus, children seek not only environments in which they can engage in emotional content with one another, but also environments which incite these emotions themselves. To this extent, children want architecture that will play with them and fulfill their emotional needs.

In understanding how this conceptual model depicts architecture as a friend, theories of play may also be re-evaluated. The architecture of play shouldn’t be intended to bring children to some pre-determined state. It doesn’t need to make children into hard workers or dutiful democratic citizens. In being a peer and a friend, the architecture should be just as concerned with play without outcome as the child. Its form should follow its function by striving for pure fun and limitless enjoyment. It doesn’t need to teach or indoctrinate. Its only concern should be developing an awareness of self and an understanding of others.

Just as this new approach to designing playgrounds informs the field of child development by clarifying the role of play, the process of arriving upon this conclusion informs the field of architecture. On the one hand, playgrounds are one of many instances which demonstrate the importance of architecture outside of utilitarian functions by also serving as a conduit of mood and behavior. On the other hand, studying playgrounds clarifies the need for multi-disciplinary approaches to architectural design. The large question surrounding playground design was why their forms had changed so little despite their developmental
importance and calculated inadequacies, and the answer was that historically, adults have sought to control children in their play environments. In this case, becoming critical of playground history and the social forces which informed it resulted in a better way to approach the design process. This approach calls for architects to formulate more creative and self-reflective methods of interpreting architecture and its meaning. Architects who design playgrounds have yet to think of the playground as being one of several instances of play architecture. It is hoped that through my analysis of films, tree houses, and skateboarding, that playgrounds no longer solely comprise the category of play architecture and can consequently be designed in better ways after viewing other play interactions between man and architecture. This essentially shows the necessity for architects to make more thematic and large-scale inquiries as to architecture in its myriad forms to lead to new, more specific developments.

Ultimately, this method of viewing the architecture of play as a friend has the potential to redefine all forms of architecture. In the friendship between humans and the environment, we find that play is inherently architecture. It is a means of constructing and experiencing, it develops creative solutions and invokes emotions, it establishes self-reflection, and it acts as a means of creating and maintaining relationships. Play identifies an entity as living, thinking, and social, and so too should our architecture. We deserve environments that make us feel energetic, bring us joy, and give our lives meaning. We deserve spaces that challenge ourselves both physically and mentally. We deserve architecture that allows our relationships with one another to grow and develop. With play in mind, architecture becomes far more than the setting of our lives, instead taking on an active, participatory role as a friend. In realizing that play is architecture, and architecture play, we can understand more fully that they are the sources of all development and therefore deserve and require our attention in developing each to its fullest.
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Figure Credits

Fig. 1: Axe and wood at the Kolle 37 adventure playground. Personal photograph by author. 2011.

Fig. 2. Children's constructions at the Kolle 37 adventure playground in Berlin, Germany. Personal photograph by author. 2011.

Fig. 3. Robbins Farm Playground in Arlington, MA. Personal photograph by author. 2012.

Fig. 4. Large slides built into the hill at Robbins Farm. Personal photograph by author. 2012.

Fig. 5. Monkey bars at a traditional playground. Personal photograph by author. 2012.

Fig. 6. The definitive structure of the play house does not help children in their imaginative play. Personal photograph by author. 2012.

Fig. 7. Aluminum shapes with unspecified forms promote imaginative play at this designer playground. (Alcoa Aluminum Play Sculpture by David Aaron. Photograph. From Aaron, David and Bonnie P. Winawer. New York: Harper & Row Publishers, 1965.)

Fig. 8 Plans of the main section of the Tufts Eliot Pearson Playground. (Illustration. Natural Playground Research Project, http://ase.tufts.edu/epcs/playground.asp (accessed April 25, 2012.))

Fig. 9. Children play together in the sand near the boulders and water. (Photograph. Natural Playground Research Project, http://ase.tufts.edu/epcs/playgroundResearchResults.asp (accessed April 25, 2012.))

Fig. 10 “The Magic Construction House.” Personal photograph by author. 2011.

Fig. 11 Children inhabit their own dwellings. Personal photograph by author. 2011.

Fig. 12 A giant circular play system designed by Senda. (From: Mitsuru Senda. New York: McGraw-Hill, 1992. Fig. 2.48.)

Fig. 13 A circular play system can also be implemented on smaller structures. (From: Mitsuru Senda. New York: McGraw-Hill, 1992. Fig. 2.62.)

Fig. 14. The traditional slide is updated to test children’s abilities. (From: Mitsuru Senda. New York: McGraw-Hill, 1992. Fig. 2.37.)

Fig. 15 Howl’s Moving Castle. (Illustration of Howl’s Moving Castle, http://steampunkscholar.blogspot.com/2010/06/howls-moving-castle-hayao-miyazaki-dir.html (accessed April 20, 2012.).)
Fig. 16 The Rondel tree house. (Photograph from http://www.naturemoms.com/blog/wp-content/uploads/2008/12/treehouse.jpg (accessed April 20, 2012).)

Fig. 17 Sidewalk surfers. (Holland, Hugh. Photograph. n.d. http://www.medesignmag.com/arts/2554/locals-only-by-hugh-holland-at-m+b-gallery (accessed April 20, 2012).)


Fig. 19 Pipes in the desert. (Bolster, Warren. Photograph. 1977. From Iain Borden. New York: Berg Publishers, 2003. Fig. 3.8).


Fig. 21 Eli Reed nose bombs off a monument. (From mehrathon.com, http://www.mehrathon.com/v2/?p=990 (accessed April 20, 2012).)

Fig. 22 A skater poses ironically with a sign banning skateboarding in Japan. (Screenshot. From “Zoo York in Japan,” http://skateboarding.transworld.net/1000105680/features/zoo-york-in-japan-video/ (accessed April 25, 2012).)

Fig. 23 A linear skatepark model. (Developed by C & K Skateparks. 1977. From Iain Borden. New York: Berg Publishers, 2003. Fig. 4.2).

Fig. 24 Paris folds on top of itself. (From www. etheriel.wordpress.com, http://etheriel.wordpress.com/2010/07/21/the-inception-of-inception/ (accessed April 20, 2012).)

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