

Playground design: children's play spaces in the city

from the 1930s up to the present day

Thesis to obtain the Master of Science Degree in Architecture

Extended Abstract

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Abstract

Playgrounds are coveted and important public spaces in our urban fabric, not lone for providing a place for children's play and development in the city, but also for being spaces capable of fostering public life and community activity. Yet, neither perceived as permanent structures nor designated for preservation, playgrounds often end up altered or lost in the course of time, with much of their history left unrecorded.

The following thesis explores a part of the playground development and achievement by rediscovering the playgrounds emerged between the 1930s and the 1980s, tracing the various facets of its solution at different time and location through four major narratives. In a parallel manner, focus is given to the current strategies and interventions of success conceived by Dutch design firm Carve, which intricate and sensible design have demonstrated the significance of playgrounds and its potential to bring about substantial contribution to the children, society and city of today.

The study aims to unfold the broad design choices and principles of past and present playgrounds, through analysing its spatial and morphological characteristics; tracking the circumstances, practitioners and visions behind its conception; understanding its relevance and contribution to the respective time and context; and examining the various roles taken up by playgrounds in the city at different times in different places. Ultimately, this work intends to give prominence to the subject matter and contribute to its research and documentation, establishing insights into past and present design solutions as a mean for future reference.

Keywords: Playground design, Children's architecture, Public play space, Carve

Introduction

During the twentieth-century, playground emerged in various forms of exciting public experimentation, driven by architects, artists, urban planners, activists, parents, and among others, who saw value in connecting art, architecture, pedagogy and public space, for a mutual ambition of providing the city child a meaningful childhood with a stimulating development and dynamic social exchange. Yet, unable to sustain the shifts in the society dominated by standardization, control and helicopter parenting, as well as the growing urbanisation and general commercialization of public spaces, playgrounds have gradually degenerated into irrelevance as cultural and social phenomenon. Very few of these remarkable spaces of lively and imaginative play remained, with much of their story left unrecorded. The prevailing lack of reference and undervalued regard of playgrounds comprises one of the main reasons for the standardised and insubstantial playgrounds residing in the urban fabric of today.

The purpose of this thesis is to contribute to the study and documentation of playground design, by identifying and exploring the broad and varying design choices and principles of playgrounds deemed significant and contributing to different times, in different contexts, with the ambition to combine views of the past and the present to provide reference for the future.

The following study consists in two parts. The first is dedicated to the historical development of playground design, which begins with a brief account of its original conception and configuration, and proceeds with a survey of pioneering examples emerged between the 1930s and the 1980s. Through an extensive literature review, the design approaches of different times and in different parts of the world were traced in four narratives, according to their aspirations, means of expressions, and resulting type of play: constructive and permissive play, domesticating play, sculptural play and continuous play.

Each example is then analysed in its various dimension of conception, revealing its aims and expressions; spatial and morphological characteristics; function and program; in view of its social and educational, political and economic, artistic and cultural, and urban context. The information source consisted in monographs, exposition catalogues, academic documents, articles, essays and manuals concerning children's design, pedagogy, psychology and development; social and political science; and architecture, landscape architecture and urban planning. Priority is always given to the written works by the designers in regard, in pursuance of an elaborate and accurate analysis.

The second part unfolds with the account of events which led to the decline of previous enthusiasm for play environments and reveals the current practice and research on the field, to better contextualise and comprehend the selected case studies' conceptual and constructive qualities, as well as its contribution to the contemporary discussions of childhood, play and public space.

Its analysis concentrates on four scales of urban intervention - the street, the square, the park and the urban structure - to provide a broad view on Carve's design philosophy, methodology and criteria in response to concerns, expectations and values of the present day. The case studies are examined in

its approach to its historical, social and urban context; its motives and principles behind the design; its construction of play experience and environment; as well as its delineation and organisation of functions and programme, with the intention to unfold possible resemblance and variation in design solutions towards circumstances identical or divergent from the past century. The source of information consists in past interviews and video conference given by the design firm, publications concerning landscape architecture, public spaces and children spaces, as well as a personal visit to some of the case studies.

Evolution of playground design

Play existed as long as children did in the course of time, but the idea of specially designed spaces for children's play is a relatively recent concept emerged at the late nineteenth century. With the new perspectives on childhood and growing concerns of children living through industrialisation, urbanisation as well as immigration, playgrounds were created to remove children from the streets and provide them with a safe and beneficial environment within the city (Burkhalter 2016).

By the turn of the century, important works and theories emerged to support the fight for universal right and well-being of children. Yet, it is the conditions and occasions following the First and Second World War which instigated an astounding and innovative development in the design of playgrounds. With the establishment of international organizations pleading for children's human rights and welfare, along with the heightened focus on children owing to the postwar baby boom, children became empowered as never before in many domains of life - domestic, economic, political and cultural. The positivity and idealism of the decades following the wars invigorated not only architects, artist and urban planners, but also activists, educators and parents, to envision playgrounds with the emerging psychological and educational research and the latest accomplishments in art, architecture and landscape architecture (Lefaivre 2008). Four narratives were traced among the pioneering and influential playgrounds emerged between the 1930s and the 1980s.

- Constructive and permissive play

Experienced first in junk playgrounds conceptualised by Carl Theodor Sorensen (1893-1979) in Scandinavia in the 1930s, and spread throughout Europe, the United States and other countries in adventure playgrounds after it was extensively advocated by Lady Allen of Hurtwood (1897-1976), the constructive and free play comprised an unrestrained, participatory and democratic process of architectural production and destruction in which children explore in their initiatives to introduce content and meaning to their own play while projecting and playing in their own creations (Allen of Hurtwood 1969).

Its playground embodied a revolutionary and modern concept in the abolishment of conventional play equipment and embracement of risk, which focused on the development of children's creativity and social competence rather than on physical and moral education promoted in earlier playgrounds, as well as its approach to fill empty or bombed sites of the city, forming community of both children and adults in the process (Kozlovsky 2008).

Remarkably, during the enthusiastic reform period of the late 1960s, the free and chaotic play implemented for the legendary exhibition *The Model* (1968) of Palle Nielsen (1920-2000), was able to abolish conventional forms of art exhibition and replaced the elitist institutional setting for a utopia of self-organised society composed of free individuals and collective beings (Larsen 1980).

- Domesticating play

The nineteenth century's industrialization has brought tremendous transformation in the cityscapes and permanently changed the structure of society and of urban spaces. The rise of the middle class and lessened working hours, along with the aggravating pollution in the city, led to the development of spaces for recreation and sports (Antoncic 2014). With the end of First and Second World War, which brought immense loss of population and deep damage to the urban fabric, children were brought into the discussions of urban reconstruction in several European countries, as a symbol of life and hope, and as an integral member of society.

Child-centred amenities and spaces were incorporated in the design of new housing estates, which includes the entire rooftop terrace of Unite d'Habitation in Marseille (1949-1962) designed by the icon of modernism, Le Corbusier (1887-1965), as well as the concept of "streets-in-the-air" put forth by Alison (1928-1993) and Peter Smithson (1923-2003), which reinstates the incidental and community play and interaction of the streets in the vertical building, presenting an alternative, humanised solution to the functionalist urban planning endorsed hitherto (Kozlovsky 2013).

Committed to the same humanist approach, Aldo van Eyck (1918-1999) had truly established and demonstrated a bottom-up urban planning, which connects the child, people and its city through constructing playgrounds in the derelict and interstitial spaces of the city. Between 1947 and 1978, van Eyck built over 700 public playgrounds all over Amsterdam. Besides creating a set of varying play equipment that fitted seamlessly into the urban fabric through carefully relating it to one another and to its surroundings, van Eyck created spaces for the children in the city that were also social hubs for neighbourhoods, which ultimately grew into an urban network of play spaces with their own community and identity (Lefavre 2002).

- Sculptural play

Emerged at the end of the 1940s as autonomous playground equipment designed by artists and/or industrial designers, sculptural play objects were intended to free the child's imagination by exploring abstract shapes believed to offer a diverse play use and let numerous children play simultaneously within a limited area. Besides breaking new grounds for the design of play equipment, play sculptures revealed how the intertwining of art, play and public space could influence the use of urban space, fostering a different relationship between children, families and their neighbourhood (Burkhalter 2013).

Swedish-Danish sculptor Egon Moller-Nielsen (1915-1959) was the founder of these objects, whose works caught the attention all over Europe and in the United States. The concept was widely spread in

the 1950s, as the American toy company Creative plaything commercialised it in their new division of Play Sculptures established in 1953, and further promoted through the nationwide competition in 1953 and resulting exhibition in the following year (Ogata 2013). Among the inspired designers, American boxer and sculptor Joseph Brown (1909-1985) further expanded the sculptural play object by introducing features of instability believed to stimulate not only children's physical and cognitive development, but also improve their communication skills and foster their sense of companionship (Ledermann and Trachsel 1960).

During the 1960s, the concept of a single play sculpture had expanded into an immersive play environment. By creating a "walk-in sculpture" at Aumatten primary school (1967) in Reinach, Swiss sculptor Michael Grossert (1927-2014) offered children a play within an enclosed landscape of sculptural concrete objects, full of sensorial and physical experiences of space, distance, height, form and shadow. Besides contributing to the recognition of abstract art to confer imaginative play experiences and fashion desirable public spaces, his approach pushed forward the discourse on the relationship between architecture, sculpture, and urban space, by exploring the limits of the sculpture's function and dimension.

Meanwhile, Group Ludic (1968), an interdisciplinary collective founded in Paris, by architect David Roditi (1937), sculptor Xavier de la Salle (1938) and film-maker Simon Kozsel (1939), built countless playgrounds throughout France by composing and connecting abstract forms into objects and integrated environments with the diligence for a sensible design to provide children living spaces and meaningful play opportunities in often complex urban settings (Burkhalter 2013, 293). Beyond exploring new materials and production techniques, Group Ludic created playgrounds through an open-ended and incremental design process involving children, by continuously improving the playground according to observations made of children at play (Salle 2016, 204).

- Continuous play

First emerged in the 1930s between sculptural experiments and aspiration for a richer public space, the designers of landscape playgrounds thrived to offer children a continuum play experience in an ambience of a total environment, which greatly contrasted the large extent of standardised playgrounds of isolated play equipment. Comprised of topographic work, earth modulation, micro-landscapes, composite structures, sand and water, the playground aimed to provide children with a diversified and intermingled play through linked spaces of varied heights that would foster their cognitive and physical development, as well as stimulate social exchange while engaging them in experiences of natural environments.

Japanese-American sculptor Isamu Noguchi (1904-1988) was the first to create playgrounds in the medium of landscape, with the aim to extend the scope and definition of art through a more significant and social use of sculpture (Noguchi 1949). The earliest playscape produced in the 1930s, was truly innovative and experimental for children's recreation at the time, as he seamlessly combined geometric and natural forms, to build play into the landscape while stimulating children's sense of colour, space and form (Noguchi 1967). Although never built, their models were exhibited and spread

in the field, which values and images had enduring influence and significance on the succeeding playground designers, such as architect Richard Dattner (1937) and landscape architect M. Paul Friedberg (1931).

Both inspired by Noguchi's unrealized project of Adele Levy Memorial Playground and the plurality of social and learning play opportunities offered by adventure playgrounds, Dattner and Friedberg explored a similar play concept in Adventure playground in Central Park (1967) and playground at Jacob Riis Houses (1965), respectively. They challenged children's imagination through an experiential and active play stimulated by diversely compound structures or zones and manipulable materials such as sand and water, arranged into a complex topography that generated boundless play opportunities to explore, learn and create (Solomon 2005). Friedberg would later designate this concept as "linked play".

On a similar note, Japanese architect Mitsuru Senda (1941) have envisioned a new type of play space and equipment in the late 1960s, which he termed as "circular play systems". He believed that the circular route and ambiguity of functions offered by the composite play structures not only encouraged children to play in mixed-age groups and freely generate new games, but also comprised contrasting spaces of open and narrow, high and low, soft and hard, as well as resting and running spaces, which provided children with various play activities compacted within a limited area, enriching their play experience. Furthermore, the sense of vertigo was an essential feature in his play environment, for it was a sensation out of the everyday routine, providing an irresistible play opportunity for children (Burkhalter 2016, 176). The same can be experienced through the shortcuts present in the circular play, as it offers children moments of choice and divergence from the route.

Contemporary playground design

Beginning from the 1980s, the golden era of visionary playgrounds gradually eroded with the establishment of safety standards and general commercialization of public space, which greatly constricted the freedom of designers, lessened the demand for play spaces in the city and embraced the production of more "post-and-platform" playgrounds. Also contributing to it were the shifts in ideals, education and parental attitudes, which limited children's time, interest and opportunity to engage in unstructured activities in the outdoors, ultimately leading playgrounds into irrelevance and set the current practice of insubstantial and homogenous playground fenced out from its urban fabric like a detached and artificial realm (Solomon 2014).

With the emerging theories, which recognises the need for childhood risk taking, along with the new patrons and interest for playgrounds, play environments are resurfacing with more innovative and unique expressions, attentive not only to the play stimulated but also how children and citizen experience the public space.

Carve is one of today's most prominent design firm for innovative and outstanding play environments. Founded in Amsterdam in 1997, under the leadership of Elger Blizt (1964) and Mark van der Eng (1963), the interdisciplinary office of 12 employees - from industrial designer, civil engineer, architect to

landscape architect - have designed over 90 remarkable constructions primarily in public spaces for children and youth. Throughout the years, Carve has worked in all sorts of scale and programmes, and built across Europe, North America and Asia-Pacific. With “a serious approach to play, a willingness to take risks, and a collaborative spirit” (Dumiak 2013, 75), Carve’s design for inviting public spaces and groundbreaking play environments for children and youth had led them to be referenced in multiple prominent publications and honoured with more than 20 architectural and design awards on both national and international level. As the spokesmen of Carve, Blizt has been invited lecturer at universities and design school around Europe and participated in conferences and discussions on play spaces around the world¹.

As former skateboarders whom sought opportunities in the city to build and “play”, the founders continued to approach public space and envision play and recreation not in view of limitations but of possibilities, and shaped the visual and structural language of their designs with the spirit of a skater - practiced yet improvisational and with landscape as the base for play. Carve designed playgrounds not only challenging to children’s play, but also attractive and accommodative of all sorts of groups, ages and forms of use, believing in the power of play and playgrounds to be magnets of community activities, in which the relationships there formed would act as a catalyst for the revitalization of public spaces.

- The street

Realized in 2010, Carve has converted Portgijterstraat, a typical dense street situated in the centre of Amsterdam, into a vibrant and lively public play space. In an area lacking in public squares and green spaces, Carve rededicated the street of active traffic and parking to the children, pedestrian and bikes through meticulously arranging green and cycling features with the thrilling play space of undulating landscape with interactive play objects integrated into black rubber. Besides providing children with a diverse play experience, the site had become an important neighbourhood meeting space, bringing together different backgrounds and ages, and strengthened the community which helped build it.

- The square

In Van Beuningenplein, Carve not only restored the former play and sports function with much more challenge and excitement, but also reconnected the public space to its surrounding and enticed more varied users and ages. The edge of the square strategically placed facade gardens, benches and hedges, which formed intimate green rooms for locals to sit and socialise, making the transition between private and public space less rigid and bounded the activities in the central space without fencing it off. The central area dedicated to play and sports housed a youth centre and a restaurant, two multipurpose sports fields and a playground with custom-designed structured connected by a wavy surface. Spaces and functions fused and created unclear transitional zones, which use was to be determined by the users at any given moment. Van Beuningenplein successfully brought life and identity into the square, by enticing different users, ages and backgrounds to share and use the same

¹ Media, *Carve, ontwerp en ingenieursbureau*. Available online: <http://www.carve.nl> [Accessed 10 Oct. 2017].

space. Officially opened in May 2011, the design was nominated for the biennial Gouden Klinker Award in the same year, and for the Amsterdam Architecture Prize 2012.²

- The park

In Vondelpark, Carve was commissioned to design playgrounds for the park which held biased demands - in keeping sufficient undefined open space to accommodate the growing intensity of use and number of users, while lacking in play facilities for children of all ages, in particular the older ones. In response to this juxtaposition, Carve materialised two projects in 2010 - the Canopy walk and the Vondeltuin Towers - which demonstrated how relatively small interventions can still bring about large diversity and intensity of use. In building high and minimising its footprint, both playgrounds challenged children to face height and vertigo intensively and allowed them to experience play in a radically new perspective, diversity and complexity compared to what is offered by conventional playgrounds while introducing new use and dynamics to the park without causing an impact on its open space.

Carve also ventured in creating abstract play sculptures, one that remarkably upholds forms and ideas endorsed by Joseph Brown is the playground built in Beatrixpark in 2016. Created over a former basketball court neglected within an abundance of greenery, the organically shaped, large and bold object incorporated all requested functions into one single entity, offering a rich variety of play opportunities distributed all over the three contoured arms stretching out from the centre. The inside is filled with exciting activities of sliding, climbing and hanging, while the exterior space is redefined by the object into three different playful areas, allowing play in all directions, inside out.

- The urban structure

On a quest for a new playground during the redevelopment of the former sports complex, Meerpark (2010) reappeared as a new typology of a city park inside the periphery of Amsterdam. Fences were removed and sports fields were opened to the public, conferring usability to spaces which surrounded them. It was then connected and accessed by a park-like central area, which included a water playground, bouldering wall and barbecue areas with large tables for public use. The whole site acted as a common ground in which organised sports and spontaneous activities intersected, creating possibilities for interaction between use and users, which invited new users and different forms of use.

Conclusion

The study dedicated to the historical development testified the decades from the 1930s up to the 1980s to be the “golden period” of regard and conceptualization of playgrounds, which generated some truly innovative solutions for this type of construction/space by rethinking it through the perspective of various disciplines concerning hitherto ideas on childhood.

² Prizes 2002-2015, *Carve, ontwerp en ingenieursbureau*. Available online: <http://www.carve.nl/en/item/50> [Accessed 1 Aug. 2018].

The intention to foster creativity in children through a meaningful play experience is appreciated among all examples. Rather than traditional play equipment which implied uses and incites merely kinetic development, these built abstract and elementary, or even totally absent of equipment, stimulating children's imagination to interpret or alter the environment, as well as formulate their own play through the plurality of play options and learning opportunities offered. Another remarkable attribute of the playgrounds in regard is their mean for both social and urban renewal.

Although the playgrounds in regard were sorted in four categories, different design principles and approaches were discerned within each group, revealing interesting variations in the design solutions, which responded to a distinctive social, educational, political, economical, artistic, cultural, and urban context. Moreover, the interpretation on designs emerged within the modern time provided a basis to reflect upon the cultural significance of playgrounds in modernism and in the distinctly twentieth-century perspective on childhood, uncovering the endorsed values and highlighting the contributions of an interdisciplinary approach for its conception.

On the other hand, the analysis of contemporary case studies of intrusions in different urban scales, brought to light a set of diverse and intricate design solutions generated from and for the particularities found in each scale of intervention, and revealed an approach which is mindful of past designs of the twentieth century, reinterpreting it for the present context. Besides recreating the intermingled play and enhancing it with more challenging features that further stimulated the child's risk-taking and motor development, these playgrounds aimed to revitalise the public space and strengthen social connections through play. They provided not only a solution for the limited space available for play in the current city by offering a variety of use for a diverse population, but also an alternative practice of playground design, which is attractive, meaningful, sustainable and achievable.

Playgrounds are among the few remaining spaces within the city for non-structured, spontaneous, and creative activity, for children and citizens to actively engage in physical challenges and social exchange. The visionary playgrounds of the twentieth century uncovered its potential to take on a social function and contribute to the greater good, extending the notion of a play site. Building upon the past, the present examples demonstrated the possibilities of playgrounds to be visually attractive public spaces of community activity that stimulates children development which fit to and enhances the urban landscape by offering various textures and features, enticing various ages and users, and responding to its context.

To conclude, the main objective of this thesis consists on illuminating the period which generated some of the most innovative designs of playground and spread the present knowledge and good practice, but this work also hopes to inspire those interested in creating playgrounds to look differently about play sites and value it as much as we value the children that would use it. In the end, adults are the one entitled to determine where and how children play.

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