Redefining Safe Play Space

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ABSTRACT

Not all play is equal and not all playgrounds are equal. There is a lack of free play in today's society and it is mostly due to superficial playground design and public policies. Based on studies of residential areas, this paper wants to uncover new methods of designing playgrounds so that they are accessible and likeable to residents. A family-friendly design process is proposed, and it motivates designers and administrators to rethink residential neighborhoods in a bottom-up manner.

Keywords: free play, playground design, catchment, neighborliness, family-friendly approach.

Urban design and planning

I. THE ROLE OF PLAY

It must be specified that there is a difference between structured play and free play. Play, by definition, is self-controlled and self-directed. It is the self-directed nature of play that gives it its educative power. Both bring about immense personal benefits, but free play is the one that helps a child develop decision-making skills, independence, it boosts creative thinking, it gives a real sense of responsibility and when done in a social setting it also helps develop a sense of empathy and decreases anxiety levels. Free play helps children develop intrinsic interests and competencies, exert self-control, and follow rules, helps them to learn to regulate their emotions and make friends.

It is vital that children do play outdoors unsupervised, and not just for the exercise. In any game, children must agree the rules for themselves, they must play fairly (or the fun stops), they settle disputes, reach compromises, modify the rules when the situation changes (somebody joins or leaves). They learn how to cope with life. This is very sophisticated personal development in which children acquire competences for life [1]. It is these competences that will make the difference in the future developments of cities.

II. HORT HISTORY OF PLAYGROUNDS



Fig. 1. Historical New York playground [2]

The need of play expresses itself in the form of playgrounds and other auxiliary play spaces. Although every region has its own history of playgrounds, there is a similar global development path. Children of the 19th century didn't have formal playgrounds. Originating as "sand gardens" in Germany in 1885, the beginnings of playgrounds appeared in the United States in Boston in 1886. And until the turn of the 20th century, playgrounds remained uncommon in public spaces.

But as industrialization and urbanization grew, so did the concern for public welfare. Humanitarians saw playgrounds as the solution to cramped quarters, poor air quality, and social isolation. This new concept could keep children off the dangerous streets and help them develop their physical health, good habits, socialization skills, and the pleasure of being a child [3].

In 1907 John Dewey was the one who argued that play was as important as work for children, and groups like the Outdoor Recreation League provided slides, seesaws and professional play leaders to slum areas [4].

In 1906, the Playground Association of America formed to promote ideas of playgrounds to communities, including benefits, construction, layout and design, and the conduct and activities to occur on playgrounds. Contemporary literature dictated that an ideal, proper playground would have separate play sections and athletic fields for boys and girls; would be supervised; and would feature shelters and toilet/ bathing facilities, shaded spaces, garden plots, and swimming or wading pools.

A statement of President Theodore Roosevelt summarizes the public perspective over the need of playgrounds, which has remained mostly unchanged for a great proportion of today's population:

City streets are unsatisfactory playgrounds for children because of the danger, because most good games are against the law, because they are too hot in summer, and because in crowded sections of the city they are apt to be schools of crime. Neither do small back yards nor ornamental grass plots meet the needs of any but the very small children ... since play is a fundamental need, playgrounds should be provided for every child as much as schools [4]. Playgrounds were not free form in the early 1900s (Fig. 1). People were trained as instructors to teach children necessary lessons and organize their play. Play could include equipment lessons, parades, theater productions, and other activities.

The concept of a "junk playground" was first proposed by Carl Theodor Sorensen Danish landscape architect, who noticed that children didn't want to play in the proper playgrounds that he designed. As a response to his concern he designed a new type of playground that consisted mostly of a collection of old boxes and tubes. The concept rapidly took off and evolved into what is now called an `adventure` playground.

Nowadays we are confronted with an overwhelming diversity of playground styles that may include school playgrounds, park playgrounds, wilderness playgrounds, zoo playgrounds, arboretum playgrounds, camp playgrounds, dog playgrounds, street playgrounds, loose parts playgrounds, check-a- child playgrounds, wilderness playgrounds, imagination playgrounds etc. [5] The main historical focal points are listed below:

- 1821 – First outdoor gymnasium, Salem Mass. Latin School.

- 1837 – Friedrich Froebel developed the first kindergarten (garden for play) he called a "play-ground."

- 1894 - First "model playground" (with modern type equipment) established at Jane Addams' Hull House in Chicago.

- 1906 – Playground Association of America (PAA) formed.

- 1909 – Massachusetts Playground Act adopted in 40 cities and towns by popular vote, requiring all towns of 10,000 to establish public playgrounds.

- 1943 – First "junk" (adventure) playground established in Denmark.

- 1945 – Junk playground concept introduced in the U.K. and renamed "adventure" playground.
- 1980 – 2012 – Unprecedented expansion and diversity: standardized, natural, integrated, accessible, intergenerational and "cyber," "digital," or "electronic" playgrounds [5].

III. WHY PLAYGROUNDS SHOULD BE REDEFINED

Historians of play have contended, with good evidence, that the high plateau in children's free play in North America encompassed the first half of the twentieth century. Indeed, in his book on the history of play in America, Howard Chudacoff refers to this period as "the golden age of unstructured play." By unstructured play Chudacoff means play that is structured by children themselves rather than by adults, so his term corresponds to what is called free play. Since about 1955, however, children's free play has been continually declining, at least partly because adults have exerted ever-increasing control over children's activities outside of the world of labor. The most noticeable and probably greatest decline has occurred in children's outdoor play with other children [6].

There has been a "Right to Play" declaration from 1977 with this right being included in the UN Convention on the Rights of Child since 1989, but still the children's freedom to play has just gone down. There are pieces of research about play that tend to show this is happening but little definitive. It is an indication of in what low esteem play is held that there is little definitive research. Where there is research it tends to have been about transport rather than play. An important study found that in 1971, 80 per cent of seven and eight-year-old children could go to school without adult supervision. By 1990, this figure fell to 9 per cent [7].

Based on standardized clinical assessment questionnaires, there is evidence that 5 to 8 times more children suffer from major depression or a clinically significant anxiety disorder a than they did in 1950. This has been a straight linear increase. Over the same period of time, in children 15 and under there has been a quadrupling of suicide rate. Interestingly, the suicide rate has dropped in people over 60. It becomes evident that the world became a better place for the elderly, but a worse place for the children [6].

Although playgrounds are important as a family facility they do little for children's play as such. The child's play time should not be dependent on whether the parent is free, if it isn't raining and or if they'd rather not drop them off at scouts, dance classes etc. Play is freely chosen, personally directed and intrinsically motivated [8]. Rob Wheway, director of the Children's Play Advisory Service, emphasizes the child's right to play and how a superficial approach to playground design actually violates that right.

IV. FRESH APPROACH TO PLAY-ORIENTED DESIGN

There's a vicious circle that makes play more and more rare: once there are less children playing outside, the place does become more dangerous, therefore there will be even less children playing outside. There are. However, a few steps that can be taken in order to break this vicious circle and provide a play oriented urban design.

IV.1. Complement the playground network with auxiliary safe play spaces

Although the number of specifically designed playgrounds has increased worldwide, there has not been an equivalent rise in children's play time. It seems that playgrounds do not offer a complete solution to the problem. In today's densely urbanizing cities there it is little to no chance that there would be the space for a beautifully designed, well-lit playground available in no more than 100 m of every household, secluded from intense traffic, but populated and visible enough so that its users are not in a vulnerable position. There must be assigned play space throughout every city that completes the necessities that are not met by the existing playgrounds. There are therefore 4 categories of play spaces that must coexist and complement each other:

- Environment
- Public Space
- Designated Play Places
- Play work Places

Environment – Every child, if they are going to play, needs to play in their local environment. That is 100% of children.

Public Space – There isn't a precise figure but perhaps 20% of children are able to play in some sort of public space. That is only a fifth of those that play in the environment and it might be even smaller.

Designated Play Places -10% possibly, less than 10% probably, of children are able to play freely in designated play places.

IV.2. Ensure availability and safety

There has been research done on two areas of the city of Cradiff (Fig. 2). The first was standard terraced houses with straight roads in a grid pattern. There was a big primary school (400 children plus 60 in the nursery) in the area. There were older children playing football on the large green area across a busy road but not young children, except a few who were taken there by older children. The second area was of cul de sac design, with no through traffic and the distributor roads had bends to slow the traffic. In this area many more children have been seen.

In the first area with the straight roads cars go through at 30 mph (approx. 48 kph) or so even though it is a residential area. From when they were built (around 1900) up until well into the 1960s children would have been out on those streets playing freely. In the second area children were playing out because there was no through traffic in the cul de sacs and the road layout deliberately has bends to slow traffic. The difference was that junior females/junior males (from about 6 to 11 years old) were out playing much more freely in Area 2. This is even though more dwellings were in the area of observation in Area 1. (Infants approx. 4-6 years old)

	Infant Girl	Infant Boy	Junior Girl	Junior Boy
Area 1 Terraced			1	3
Area 2 Cul de Sac	2	2	24	34

Fig. 2. Observation table, Cardiff study [7]

It is the areas where the cars cannot go through fast where the children are playing out. Interestingly where children play out parents talk much more about feelings of neighborliness, they talk of keeping an eye on each other's children [7].

Up to 11 years old children want to be within sight and sound of their own home, which approximates to a maximum of 100m. If you then plot 100m from most play areas, you see they simply don't work for children.

What we have got to start doing is measuring the outcome "Can children play out?" That is far more important than counting how many playgrounds or play centers there are and then drawing circles around them to give a false impression of catchment.

Create play spaces that are interconnected to each other, that are at the core of residential units, inward-facing and avoid direct contact with intense traffic routes (Fig. 3). When the urban structure does not grant enough playground opportunities, interior streets may be transformed in community-friendly spaces by introducing traffic calming solutions.



Fig. 3. Sketch of possible rethinking of residential areas in relation to playgrounds [7]

When it comes to the rates of play deficit in urban areas, he puts the blame on the car- dominated streets. He states:

Children's freedom to play is falling dramatically because there has been failure to give primacy to the "Child's right to play" and instead those responsible have concentrated on a relatively small number of facilities and the quality of an even smaller number. The domination of the car is the main causal factor. Fears of "stranger danger" and "risk aversion" are misunderstood [7].

IV.3. Create policies that prioritize pedestrians and children's right to play

If children play out, adults are more unneighborly and keep an eye out for one another's children. However, satnavs direct drivers to side roads to avoid congestion on busy roads, making side roads even more dangerous. We need a new designation for residential roads. Priority should be given to pedestrians to encourage healthy lifestyles and promote neighborliness.

IV.4. Introduce family friendly approach into the design process

Planners significantly overestimate the distances children will travel for free play. Most local authorities are not asking whether or not children use the areas for free play and the reasons why they do, or do not. Most do not even seriously consider whether a busy road will act as a barrier. Some playgrounds are hidden away and so not only would a child feel vulnerable, but even an adult with a child would feel vulnerable. They are therefore hardly used [7].

Residential roads should be suitable for children. The consultations that are carried out for children's benefit must change. Too often the location of the play place is assumed, and the consultation is merely on the design and facilities. Children's participation in the consultation process is important and must be continuous. Every neighborhood must be analyzed and treated individually. There is inside knowledge in the community that should be profited by in order to ensure the best outcome. Unique insights like certain smells, dangerous neighbors, conflicts of interest, unique views, objects or places that have a special meaning to the community, the sense of belonging or not belonging to a certain area, they all contribute to a place-characteristic design.



Fig. 4. Before and after pictures of street transformed with the involvment of the entire community, London

Government policy can also create an enabling environment for grassroots groups to encourage free play, which is exactly what has happened with Scotland's Community Empowerment Act. There must be a family-friendly approach to playground design in order for it to be effective.

V. CONCLUSIONS

Although both the importance of play and lack of it is well documented, there are little changes that take place in urban design in order to encourage play to return to the life of the cities. Changes refer to basic principles such as availability, safety, community involved design and new policy making. Play may not become a top priority in urban design prospects, that is why flexibility and readiness is the key to ensuring enough quality play spaces.

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