

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.keaipublishing.com/foar

RESEARCH ARTICLE

Fences of childhood: Challenging the meaning of playground boundaries in design

Alkistis Pitsikali ^{a,*}, Rosie Parnell ^b^a *Department of Architecture and Built Environment, Northumbria University, Newcastle Upon Tyne, NE1 8ST, United Kingdom*^b *School of Architecture, Planning and Landscape, Newcastle University, Newcastle Upon Tyne, NE1 8ST, United Kingdom*

Received 23 November 2019; received in revised form 26 February 2020; accepted 5 March 2020

KEYWORDSPlayground;
Athens;
Ethnography;
Boundary;
Play;
Transgression

Abstract Scholars have criticized the capacity of playgrounds to support children's participation in public life. Fences of childhood, such as walls, fences, and enclosures, dominate children's "public" spatial experiences in the global north. Challenging well-established critiques of the fenced playground as a space that segregates and controls childhood experiences, this study offers a novel and nuanced perspective, emphasizing the qualities of the playground fence that support play and playful connections, on, through, and around it. Employing an ethnographic methodology, this study includes 167h of observations in three typical urban public playgrounds in Greece and 65 semi-structured interviews with 124 participants. Drawing on recursive thematic qualitative analysis, the fence emerges as a blurred boundary, that is, an element that transgresses assumptions and questions spatial classifications and hierarchies. Rarely the subject of design discourse, these findings are particularly significant in design disciplines globally and offer new understandings on the possibilities afforded by the playground fence. Emergent themes, namely, indeterminacy, climbability, playability, and porosity, are proposed as principles to guide fenced playground design as part of a fundamental reconceptualization. This reconceptualization positions the fenced playground as a public space infrastructure, supporting intergenerational interaction and play as well as children's presence and play in the public realm.

© 2020 Higher Education Press Limited Company. Production and hosting by Elsevier B.V. on behalf of KeAi. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

* Corresponding author.

E-mail address: a.pitsikali@northumbria.ac.uk (A. Pitsikali).

Peer review under responsibility of Southeast University.

<https://doi.org/10.1016/j.foar.2020.03.001>2095-2635/© 2020 Higher Education Press Limited Company. Production and hosting by Elsevier B.V. on behalf of KeAi. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).Please cite this article as: Pitsikali, A., Parnell, R., Fences of childhood: Challenging the meaning of playground boundaries in design, *Frontiers of Architectural Research*, <https://doi.org/10.1016/j.foar.2020.03.001>

1. Introduction

1.1. Fences of childhood

Historically, a child's everyday relationship with social and public spaces is a sociocultural product (Rasmussen, 2004). Increasing industrialization and changes in the socioeconomic structure of society during the 18th and 19th centuries led to the specialization and zoning of land use as well as restrictions on public spaces (Aitken, 2001; Woolley, 2007). At the same time, the "Child Employment Act" (Heseltine and Holborn, 1987, 20) helped forge the notion of childhood as a separate and distinct phase in a person's life and the design of special places to accommodate such a phase. The need to protect children from the "ills of industrialization" (Gagen, 2000b, 216; Gagen, 2000a; Kinchin and O'Connor, 2012) led society to consolidate children's social and spatial segregation. Thus, a "demarkation of a special segment of the population" (Olwig and Gulløv, 2003, 7) occurred.

Fences of childhood, which are signifiers of security, have acquired interesting meanings, as the values and views of adults about childhood are reflected in urban spaces (Gagen, 2001; Mitoulas, 2005). Drawing on the characterization of urban space of Stavrides (2015), children of the global north appear to live in an "archipelago of normalized enclosures" (9). In urban "landscapes of power" (Matthews et al., 2000), Zeiher (2003) argued that power over children is enforced by not only people but also "set arrangements at fixed locations with predetermined purposes and programmes and organisational structures" (67). The literature examines how concepts of childhood and adulthood are structured in space (Maxey, 1999). Public spaces have emerged as over specified, thereby not giving children the chance to "shape their own places" (Kylin and Bodelius, 2015, 87) and often viewing them as "outsiders" when in public (Aitken, 2001; Holloway and Valentine, 2000; Matthews, 1995; Olwig and Gulløv, 2003; Valentine, 1996; White, 1993). Children's presence in public spaces is not always tolerated (Day and Wagner, 2010), and child-centered spaces dispersed in the urban realm are intended to confine and protect them. Walls, fences, enclosures, and specializations are the main elements that inform children's "public" spatial experiences, with children's play spaces appearing as alien spatialities within adult public spaces (Matthews, 1995).

Playground space represents such alien spatialities. According to Maxey (1999), playgrounds create and maintain divisions between adults and children. Scholars have often criticized the capacity of playgrounds to support children's participation in public life and space (Atmakur-Javdekar, 2016; Aziz and Said, 2016; Cunningham and Jones, 1999; Heseltine and Holborn, 1987; Jacobs, 1961; Woolley, 2007). The creation of playgrounds carries a range of social, cultural, political, and ecological implications (Gagen, 2000a, 2000b; Murnaghan, 2013). Utilitarian and child-centered from their very first appearance, playgrounds are bound to and created by theories on child development, childhood, and play (Aitken, 2001; Solomon, 2005), thereby advocating children's protection through segregation from the rest of society and the city (Gagen, 2000a, 2000b; Gill,

2007). A playground's segregation from the surrounding public is reflected in the ways that academic discourse approaches such space, that is, as a free-standing space, not exploring its immediate surroundings (Luken et al., 2011; Moore and Cosco, 2007; Nasar and Holloman, 2013; Refshauge et al., 2013).

Although the literature on playgrounds and private play spaces suggests that such spaces have replaced free unobstructed play in the streets (Cole-Hamilton and Gill, 2002; Cunningham and Jones, 1999; McKendrick et al., 1999, 2000), a shift in the literature toward play in the city has emerged in recent decades (Alfrink, 2014; Borden, 2007; Donoff and Bridgman, 2017; Stevens, 2007). In such studies, urban play is framed as being beyond children and restrictions on playground space and its segregating fence. Numerous studies examine "carved out," nondesignated spaces as opposed to official play provisions (Beazley, 2000; Hill and Tisdall, 2014; Jones, 2000; Matthews et al., 2000; Rasmussen, 2004). Meanwhile, other studies refer to the urban landscape as a playscape in the broad sense (Chatterton and Hollands, 2002; Woolley, 2007), thereby examining the physical characteristics of the cityscape and its affordances to children and young adults (Davison and Lawson, 2006; Gospodini and Galani, 2006). Bottom-up, temporary interventions are explored (Santos et al., 2018) often, asking "how play might be used as a tool for social transformation of urban public spaces" (368), thereby designating play away from the playground. At the same time, initiatives have emerged to (temporarily) create conditions that support children's play in public spaces. For example, the "Playful Paradigm" (URBACT, 2017) or "Playing Out" initiative (see the Playing Out website <https://playingout.net/>) developed a model in which "neighbors close their street to through traffic for a couple of hours, creating a safe space for children to play out" (Playful City website <https://www.aplayfulcity.com/>; Playable City website <https://www.playablecity.com/>). However, most initiatives refer to sporadic or one-off interventions, such as special events organized to revive public spaces, rather than sustained efforts (URBACT, 2017).

Notably, most of the above studies examining play in the city do not address existing typical fenced public playgrounds. Unsurprisingly, the literature in this field often argues in favor of reclaiming everyday play by moving it "from the periphery of playgrounds, living rooms, and arcade halls toward the centre of our cultural, social, and economic life" (Deterding, 2014, 23). Therefore, the fenced playground seems incompatible with the vision of play as a phenomenon that takes place in the center of urban life. However, exploring the "ludic city," Stevens (2007) noted that:

"Limits or barriers are also sometimes used to define people as different or to physically contain or exclude people. Such boundaries can become a catalyst for creative or transgressive behavior where people test the effectiveness of physical controls" (114).

As shown in a previous paper (Pitsikali and Parnell, 2019), a playground's boundary fence does not always confine play to the playground but supports transgression

into public space. “The playground emerged as a space physically segregated, but not isolated from the public realm, with the physicality of the fence itself allowing games to transgress the playground boundary” (Pitsikali and Parnell, 2019, 725). Drawing on our observations and those of Stevens (2007) that boundaries offer opportunities for play, we take an in-depth look at a playground’s boundaries and explore the qualities that support the “playground paradox” (Pitsikali and Parnell, 2019). Challenging well-established critiques of the fenced playground as a space of segregation and control (Atmakur-Javdekar, 2016; Aziz and Said, 2016; Carroll et al., 2019; Cunningham and Jones, 1999; Heseltine and Holborn, 1987; Jacobs, 1961; Matthews, 1995; Thomson, 2005, 2003; Woolley, 2007), we examine the qualities of the playground fence that support play, playful connections, and interactions, allowing the transgression of play and playfulness into the public realm.

1.2. Playground fence

A fence is considered as a playground’s integral and enduring feature. From their very first appearance, playgrounds were intended to segregate children physically (but not visually) from “adult” public space (Aitken, 2001; Gagen, 2000a, 2000b; Solomon, 2005). Boyatzis (1987) described the very first playgrounds as “a barren tract of asphalt or concrete enclosed by a high fence” (101), with equipment added years later (Dattner, 1969). Gagen (2000a) argued that spectacle and surveillance are enmeshed in these first playground spaces. In effect, the first notions on playground space are a big cage that would literally segregate children from adults. An interesting report from the *Washington Post* describes how a playground in New Hampshire Avenue was delayed owing to lack of funds to construct a fence (The Washington Post, Aug 22, 1965), thereby revealing the importance of a fence for a playground. Over the course of the playground’s evolution, the fence is a key element that has not been transformed. Though the form of the playground may change,¹ its function remains the same. Even in radical and child-centered approaches of playground space, such as sculpted (Aaron, 1965; Dattner, 1969; Kinchin and O’Connor, 2012) and adventure playgrounds (Lady Allen of Hurtwood, 1953), the fence is a prerequisite for operation. A playground’s play area is defined by its fence. Often colorful and playful, the fence attaches playful characteristics to a space, thereby making it easily identifiable as a place for children.

However, a few designers and artists have “experimented” on the boundaries of a fenced playground and challenged the inside–outside dipole, proposing new ways of playing and being inside a public space. In a classic example, using the same paving material as that used in an adjacent space and omitting the fence, Van Eyck allowed a playground to “meld with its surroundings” (Solomon, 2005, 18). Similarly, playgrounds in Seabrook Rise Play (Muf

Architecture/Art, 2006) and Wick Green (Muf Architecture/Art, 2010), which were designed by MUF, transform the fence into a play feature, accommodating seesaws and benches and blurring the boundaries between the inside and outside. In another well-publicized recent example, architecture professors Ronald Rael (2017) and Virginia San Fratello used the power of play to defy boundaries set by the state. Specifically, on a fence erected to separate the United States and Mexico (Bakare, 2019), an art installation allows people to play on seesaws straddling the enclosure, thereby questioning the imposed segregation by creating “togetherness” (Rael in Bakare, 2019). However, we stress that though these examples from practice highlight the potential of playground boundaries, in the research context, the playground continues to be framed primarily as a segregated play space.

2. Methodology

2.1. Context of the study

Similar to other parts of the world, the fear culture (Gill, 2007, 38) in Greece has established strict playground safety regulations fueled by, while increasing, parental safety concerns. The official definition of playground space in Greece states that a “playground is considered as the delimited outdoor municipalities’ space intended for children’s entertainment without staff supervision” (authors’ own translation; Ministry of Internal Affairs, 2014, 25338). According to the 2009 law:

“A playground must be surrounded by adequate fencing, natural or artificial, that is functional and able to provide security by preventing children from trapping parts of their bodies as well as other risks and injuries. The fence should not visually isolate the playground from its surroundings” (authors’ own translation; Ministry of internal affairs, 2009, 11809–11810).

Thus, the official policy approaches the fence as a physical barrier against the dangers of the playground environment. A fence is intended for the safety of children, mainly to prevent injuries or accidents, rather than as a barrier against visual and auditory communications between inside and outside.

Athens, which is the capital city of Greece, is often criticized by its residents for its lack of public and green spaces (Maniou, 2012), thereby making playgrounds particularly important for families. The private spaces of homes or friends’ houses are the basic hubs of young children’s play (Kaisari, 2005; Mitoulas, 2005). Moreover, the literature examining play and play spaces in Athens is limited (Galani, 2011; Goumopoulou, 2007; Kaisari, 2005; Katsabounidou, 2015; Maniou, 2012; Mitoulas, 2005). Thus, the findings of this research offer an opportunity to discuss and contribute to the limited body of knowledge on children’s spaces and everyday life in Greece.

2.2. Methods

Ethnographic observations and semi-structured interviews were carried out at three sites in Athens, Greece. The

¹ In modern commercialized playgrounds, the concept of the “fence” has intensified to the point of taking the form of a protective net over the entire structure (Solomon, 2005), thereby equating playground space to its equipment.

observed playgrounds were typical public municipal free outdoor playgrounds specifically equipped following the “Kit Fence Carpet” approach (Woolley, 2007). Such playgrounds were designed for children, with children’s play in mind, and positioned within busy public piazzas. All the sites (i.e., Dexameni, Ilioupolis, and Vyronas) were fenced spaces comprising metallic play structures and sitting areas with a certain degree of soft paving. The playgrounds and the public piazzas were used daily during the spring and summer months. The selected sites represented typical Athenian playgrounds, serving as paradigmatic cases (Flyvbjerg, 2001, 79; Fig. 1).

The lead author engaged in intensive, short-term ethnography, employing “thick description”² (Carspecken, 1996; Geertz, 1973), over the course of five months in 2016 and 2017. The three playgrounds and their piazza surroundings were observed for 167 h during the daytime (morning, afternoon, and early evening) and all days of the week.³ Ethnographic observations, field notes, informal discussions, and 65 semi-structured ethnographic interviews (Angrosino, 2007) using “theoretical sampling”⁴ (Ball, 1990, 165), were employed for data collection.

The interviewed participants comprised 84 parents/guardians, 21 children (between 5 and 12 years), 12 teenagers (between 13 and 19 years), and 7 elderly adult who used the playgrounds and piazzas. The children were interviewed in the presence of their parents/guardians after giving their verbal consent,⁵ and questions tailored to capture their experience and views were asked (see Table 1). The semi-structured interviews explored seven thematic areas, namely, context, play, outsiders, boundaries, crises, rules, and space (see Table 1 for interview guide). The interviews allowed the participants to communicate unprompted or associated information they considered relevant. Observations were recorded in field notes and through visual mapping, thereby exploring the relationship between the physical/spatial characteristics of the setting and the participants’ behaviors. The mapping consisted of “descriptive diagrams” (see Fig. 2) created for each observation period, using a system of symbols recorded on the plan drawings of each of the three spaces to depict and locate movement, flows, and interactions. Each observed participant was identified by a number that corresponded to the field notes, and symbols were used to record the specific characteristics of the participants, such as sex, estimated age, status (guardian/child), and adult/unaccompanied child, on the

diagram (see Fig. 2). A reflexive journal (Punch, 2012) was kept throughout the data collection and analysis process.

Recursive qualitative thematic analysis was conducted on the full data set, including field notes, interview transcriptions, and descriptive diagrams. Theme construction was guided by the research aims and objectives and followed interpretive and reflexive readings of the data (see: Mason, 2002, 149). The analysis was a “cyclical act” (Saldana, 2009, p.8), starting after the pilot study and continuing after the end of the fieldwork. The text-based field notes and interview transcriptions were coded, and the codes were clustered into themes underpinned by the interpreted meanings of the codes. Next, the texts were analyzed in relation to the descriptive diagrams made during the fieldwork observations, thereby allowing the identification of “spatial patterns,” which were then mapped in “analytical” diagrams. The analytical diagrams and themes that emerged from the interview transcriptions and field notes were synthesized, allowing the themes to be “successively modified until no new changes emerge [d]” (LeCompte and Schensul, 2010, p.82). Direct quotes from the field notes, interviews, and discussions are used throughout the paper to provide evidence for findings related specifically to the fence.

3. Findings: fence as a playable structure

3.1. Protecting and restricting?

The fence is a defining characteristic of Athenian playgrounds. A porous physical structure, the fence bore a strong socio-spatial status in each site, acting as a physical indicator that the area accommodated subjects in need of protection (Pitsikali and Parnell, 2019). When asked, “How do you define safety in the playground?” (see Table 1) the guardians commonly discussed segregation and supervision. From the analysis of the interviews and field note observations, these themes emerged as the two main attributes that a children’s space should have, thereby structuring the playground’s “essence” (Gagen, 2000a, 2000b; Gill, 2007). The fence physically enabled these attributes. From the interviews and discussions with the participants, all three playgrounds emerged as play spaces for children though not welcoming users from other age groups.

The need for a fully functional fence with a gate and lock that is out of reach for children was prominent in our discussions in all three cases. When asked, “Could the fence be omitted from the playground design?” (See Table 1), nearly all of the parents/guardians felt that the fence was important.

“I think it is better that way, so people can’t enter. It is a kind of protection. And for the child ... both for not entering and exiting.” (Grandfather, Dexameni).

“I would like it to be the way it is. Because the child is restricted in the playground.” (Mother, Ilioupolis).

However, taking a close look at the physicality and use of the playground fence, we observed a variety of behaviors

² Thick description is defined as “the presentation of details, context, emotions, and the nuances of social relationships in order to evoke the ‘feeling’ of a scene and not just its surface attributes” (Angrosino, 2007, 16).

³ The exact number and age range of the observed participants cannot be confirmed as the observations took place in crowded public spaces. However, the observed participants who engaged in conversation or were interviewed included individuals between the ages of 1 and 85 years.

⁴ Theoretical sampling is a process that involves “the use of analytical insights derived from data collected up to a particular point in time in order to make decisions about the collection of further data” (Ball, 1990, 165).

⁵ Written consent was given by the parent/guardian as well.



Dexameni



Vyronas



Ilioupolis

Figure 1 Playground fences in Ilioupolis, Vyronas, and Dexameni playgrounds.
(Source: Authors' own pictures)

that ascribed playful qualities to the fence. The fence emerged as a condition that supported play inside and outside the playground. Subsequently, we focused on the

spatial characteristics of the fence that were common across the case studies as well as the behaviors that these similarities informed.

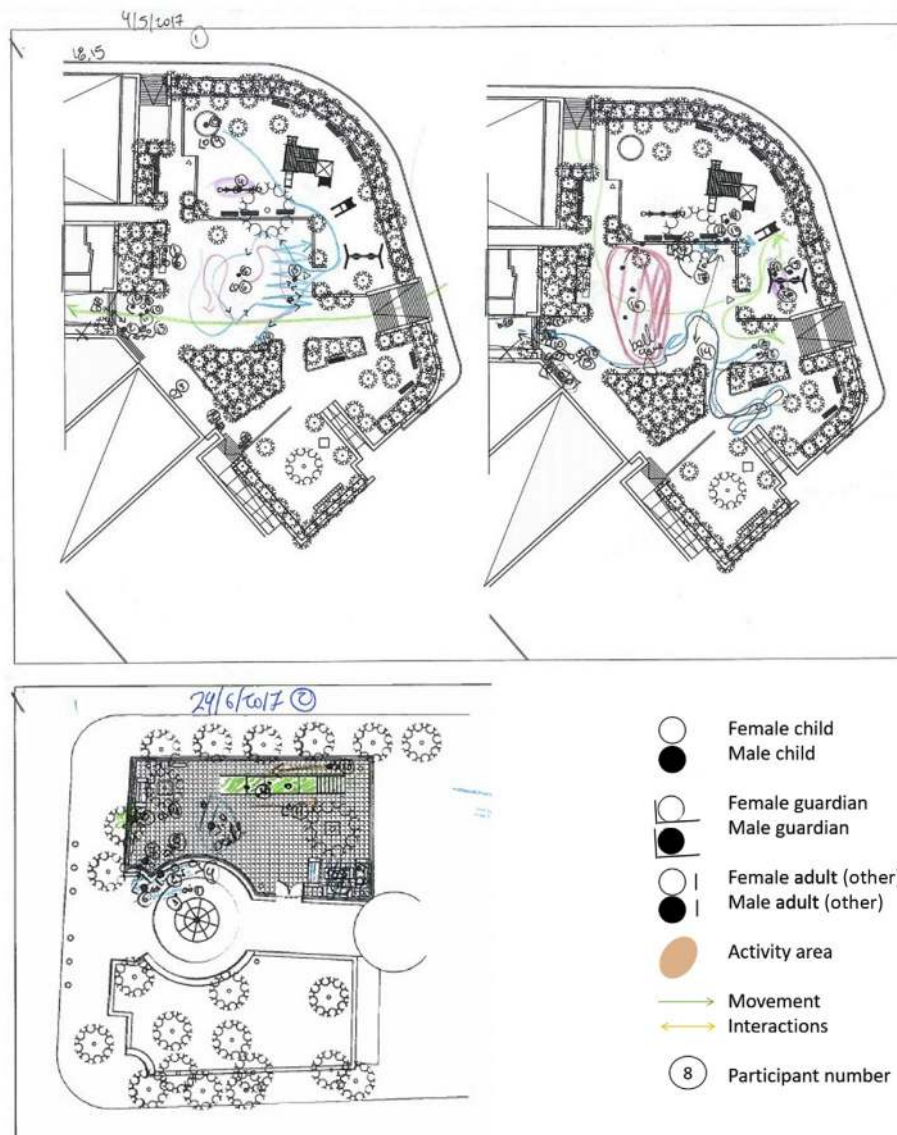


Figure 2 Example of descriptive diagrams used during fieldwork; different colors distinguish different groups of users and their activities.

3.2. Indeterminate

Although intended to disrupt movement and define a children's play area, a fence nevertheless offers an indeterminate space for play. In line with studies proposing that no consistent preference has been observed regarding playing on designated play structures (Gülğönen and Corona, 2015; Thomson and Philo, 2004), we observed active playing on the fence in all three case studies. The physical characteristics of the fences often accommodated games and complemented the playground space. Given that the fences were not ascribed a function, the adults were accepting of their children's diverse playful behaviors and fully engaged in the spontaneous games played in the playground.

"Two boys use the fence as a continuation of the play structure, sliding down the slide and then climbing and

walking to the fence's base toward the back until they reach the stairs and climb the play structure again" (field notes, Vyronas).

Play extended beyond the designated play structures, including the fence as not only a barrier but also a play structure in its own right.

"Children run from the rope structure to the fence. They climb and walk on the bars, stepping on the horizontal metallic parts instead of the base toward the rope structure again. They run again toward the rope structure and climb to the top" (Field notes, Dexameni).

Each fence's special characteristics either supported or hindered these behaviors. For example, in Vyronas and Dexameni, we observed children walking on the fences'

deep base, which was not observed in Ilioupolis, where the playground fence's base was narrow.

Meanwhile, the fences' indeterminacy fostered intergenerational interaction, thereby bestowing adults the freedom to play and move away from "good parenting" norms, which are manifested in use-specific play-equipped areas that attempt to control and guide children back to expected play behaviors (Allin et al., 2014; Blackford, 2004; Gol-Guven, 2016; Weck, 2019). Early on, the interviews (see questions 10A to 11B and 33 to 34 in Table 1) indicated clearly that physicality of space and expectations on how children and adults should behave restricted adult play in the playground. This typical response when asked, "Do you play in the playground?" is indicative.

"I don't however play in the structures. I am embarrassed about what other parents may say. They are children's structures" (Father, Vyronas).

However, in Dexameni, we observed a father playing "the floor is lava" with his daughters, using the fence base as the safe base. The father was walking around, hanging from the fence bars to avoid stepping on the "lava soil." In Vyronas and Ilioupolis, adults often stayed on the fence, guarding the "prison," while the children ran up and down the playground chasing or liberating their peers from that prison.

Our observations showed that the fence was one of a very limited number of areas in the playground that fostered intergenerational interaction. The presence, physicality, and indeterminate nature of the function of the fence challenged the norms that prevented adults from playing in the playground and provided an intergenerational play area.

3.3. Non-age-specific

Public playgrounds target particular age groups, which is reflected in the choice of playground equipment. Given predefined ways to play in and use these so called "well-equipped hamster cage [s]" (Thomson, 2003, 54), the structures of the observed playgrounds did not consider the range of abilities of visiting children and young people. Often, toddlers were unable to access the play structures, whereas older children and preteens commented on how they found the structures unchallenging and boring (questions 19 and 20A in Table 1). In our study, we were surprised to observe that by contrast, the fences often accommodated the play of children of different ages and abilities.

In Dexameni, where the playground fence's concrete base was particularly low in certain areas (5–15 cm), a low activity area was created, where toddlers could sit on the base and play with soil. Meanwhile, older children preferred to climb and sit on the top horizontal bar of the metallic fence, overlooking the activities.

In Vyronas, where the playground fence's base varied in height following the grounds' slight inclination, we observed toddlers climbing and walking on the low parts, whereas older children ran around the base, jumping up its different levels. The varying height of the fence allowed different abilities to coexist. "I like it, I can climb on it!" (Girl, Vyronas). Moreover, the varying levels of difficulty

excited the children who wanted to test their abilities further. Previous studies support children's preference for play provisions that can accommodate various age groups (Yates and Oates, 2019).

In numerous instances, in all three sites, we observed children playing only on the fence, without using the designated play structures. For example, a girl in Vyronas called to her parents while climbing the fence:

"This [the play structure] is for babies ... Look what I can do here [on the fence]!" (Girl, Vyronas).

Thus, the fence allowed intergenerational play to take place around and on it, as the structure supported adult movement. The play structures were commonly perceived as too small or demanding flexibility beyond the ability of adults, as reflected in this mother's reply when asked, "Would you play if the playground space was different?"

"I would probably play ... If the play structures were bigger, more spacious" (Mother, Ilioupolis).

Similarly, when asked, "Do adults play with you?" this girl replied:

"I would like to play with mum but she can't climb; the structures are too high" (Girl, Dexameni).

In Dexameni and Vyronas, adults were observed alongside children climbing on the fence base and balancing while walking, holding the bars, and creating a train of children. However, this behavior was not observed in Ilioupolis, where the narrow base of the playground fence did not allow such activities. The fences allowed a variety of games to unfold, thereby supporting idle and active playful interactions. Based on observations of play on playground boundaries, Stevens (2007) expressed the following.

"People turn the structure to their own advantage, explore its potential, making it serve their needs and desires" (135).

At the same time, adults walking past the playgrounds through the piazzas were observed to use the fences' bars to jump over and hang from and to walk on the base. Seen from the outside, these short-lived playful interactions highlighted the characteristic of the playground fence as a play structure rather than a border.

3.4. Climbable

A playground fence is intended to serve as a non-transgressable border that segregates and controls access to a play area. However, children often create "their own spatialization rather than remain utterly confined within the limits of adult's geographies" (Jones, 2000, 37). A playground fence, which has vertical and horizontal elements, is often perceived as a climbing structure. Physical transgressions encouraged by the fences' physicality were a common observation. "It is just more fun!" (Boy, Vyronas). Play emerged as "a form of risky bodily engagement with physical edges in space" (Stevens, 2007, 144), with users questioning and often transgressing the limits of the playground. Children and teens climbing on the fence to enter

the playground were observed in all cases at all times of the day. These observations answered the question, "What do you think of the playground's safety?" and explained how certain design details make the fence transgressable.

"The door can lock, and this is positive. The fence is adequate although not the best because of the bars' design. Children that are bored climb the fence and could leave" (Mother, Vyronas).

In Dexameni square, children were observed to climb the fence and stay atop to avoid adults. Although the fence was high and the bars were vertical, which challenged climbers, a tree "ripping" the fence served as a ladder for older children. Such children would climb the tree and stay atop, jump into the playground, or move forward hanging from the fence.

By contrast, the fence in Ilioupolis was low and lacked a concrete base. Moreover, its dense wooden planks discouraged climbing. Thus, the children were observed to use the corner of the playground to jump in and out of the play area.

In Vyronas, where the fence was short and porous with numerous horizontal elements, the children could climb easily in and out using the base and bars as steps. This playground was the only one wherein children were observed to slide through the spacious gaps between the bars. When asked, "What do you think about the playground's fence?" a mother commented:

"The smaller children get out from the holes in the fence's bars. [...] Once, a 2-year-old boy got out into the street three times!" (Mother, Vyronas).

Children climbing and swinging on the gate while entering and exiting the playground was a common sight in all three places. Often, children would use the fence for climbing competitions or to test their abilities. Mimicry of peers' actions allowed games to evolve and be established in the everyday life of the space. According to Stevens (2007), "this is evidence that people pay attention to the games being played by strangers around them in public space" (135). This attention, along with spatial affordances, seemed to establish new everyday, thereby ascribing new uses to spatial elements.

3.5. Porous

The physical porosity of the playground fences emerged as the principal attribute that encouraged multiple forms of inside–outside interaction. Swift interactions between different age groups were observed taking place through the fence. These observations revealed that though access to the playground spaces was restricted, the fences' porosity supported interactions.

"Children called to a couple walking and holding hands across the street. They were waving and pulling faces. The couple waved back and continued walking" (Field notes, Vyronas).

Moreover, the fences allowed close interactions between the playground and its surroundings and provided the safety of an approachable, solid, yet porous

boundary, which was similar to Stevens (2007) shop windows.

"The window eliminates the risks of being approached by their audience and of their deception being uncovered. It allows onlookers to come much closer than would otherwise be manageable, heightening the thrill of the act, as the children struggle to suppress giggling" (127).

Passersby were often observed stopping to chat with guardians inside the playground through the fence. Porosity allowed interaction from both sides of the fence, whereas the closed gate provided a solid barrier that was not usually transcended.

"Old man is sitting in the outer playground base playing with the little boys' cars through the fence" (field notes, Vyronas).

Exploring the case in Vyronas further is interesting, as the material of the base changed slightly as it looped around the playground. Specifically, the base was narrow (though adequately to sit on) on the three sides overlooking the green areas of the piazza or the street. However, the base was doubled in width on the side overlooking the piazza, thereby serving as a sitting area inside and outside the playground. Interaction occurred mostly in this specific area, even between strangers seated back-to-back separated by the fence's metallic bars. As a result, we argued that possibilities afforded by the fences' design supported such interactions.

This inside–outside interaction affected in–out flows and children's mobility in the piazza. For example, in Dexameni, guardians were commonly observed to stay in the playground sitting areas, chatting and supervising their children playing in the piazza through the fence. In Vyronas, parents sitting outside the playground supervised their children playing inside and outside the playground. This observation supported the overflow of activities from the playground to the piazza, often extending the play space beyond the playground's limits. Children were observed to extend their play to the surrounding piazza and use the affordances offered by the public space infrastructure.

"A group of girls play in the big play structure, then exit the playground to run toward the statue, climb the statue, and then run back again to the circular play equipment in the playground" (field notes, Dexameni).

Similar play successions were likewise observed in Vyronas and Ilioupolis. This observation resulted in a strange paradox in which "the fence did not confine play inside the playground" (Pitsikali and Parnell, 2019, 725), while occasionally blurring the notions of "inside" and "outside."

3.6. Solid

While the fences' porosity allowed views and interaction inside and outside the playground, another characteristic constraining play, that is, solid materiality, was observed to conversely allow play to, in effect, extend the playground's limits further.

Play often uses boundaries as a reference point to revolve around or move parallel to. Hide and seek games use fences as a base, extending to surrounding spaces inside and outside the playground. In Ilioupolis, though the fence base was low, children took advantage of the boundary's changing porosity by hanging advertisement banners and using the areas as hiding places. By contrast, in Vyronas, the fence's high concrete base around the sitting area transformed it into the perfect hiding spot. However, in Dexameni, the porous fence with a low base allowed views inside and outside the playground but did not support similar games, as one could not easily hide. Similarly, in chasing games, the children would use the fence to run around in and out of the gate. In Ilioupolis, where the playground had two gates, children would chase one another around the fence, using one door to enter and the other to exit. In the other two playgrounds, we observed games of hide and seek, with children using the gate to enter the playground and climbing the fence to exit or enter.

A common observation in all three cases was accidental games taking place between the playground and the piazza, thereby blurring the playgrounds' boundaries and extending play. The solidity of the fences offered a play affordance or a kind of obstacle that the children had to overcome. For example, when a ball exited a playground through or over the fence, the children playing outside would throw it back in, thereby engaging in a game that used the fence as a structure to be overcome. Interestingly, in a study on the border wall between Mexico and the United States, [Rael \(2017\)](#) used comparable examples of horse racing along the length of the wall and "international-border" volleyball games. Meanwhile, we observed that compared with other games, ball games engaged other people more easily. Although the adults in the piazza did not engage in the children's pretend play, we frequently observed them stopping for a quick football game. As a result, the solidity of the fence supported children's play in and around the playground as well as child–adult interaction and adult playfulness outside the playground.

We observed that the fences' physical characteristics allowed play to extend outside the playground and take place entirely outside playground boundaries. This behavior was the case with the ball and frisbee games played by children who had become bored of the play structures. The solidity of the fences' structure often protected the playground users from balls or other toys. In addition, the fences supported football games, providing physically defined goalposts "from the tree to the second bar" (Boy, Dexameni), while serving as solid barriers to stop the ball from rolling away. Moreover, we observed children on roller skates skating around the outside of the playground, holding the fence for support while gradually moving further away.

Creating an "edge effect" ([Stevens, 2007](#), 115) in the piazza and playground spaces, the fences allowed people protected views, and their porosity allowed supervision in both spaces. In Dexameni and Vyronas, guardians were often observed sitting inside the playground to avoid ball games taking place outside. The fences served as protective structures, thereby allowing guardians to safely supervise their children playing around the playground. When asked, "Would you like it if the piazza and the playground

space were connected?" the participants of various ages argued in favor of the fence as a structure that supported play inside and outside the playground.

"We need a fence for the little children. When we play, we don't get hit by the ball [of children playing outside]" (Girl, Dexameni).

"If the two areas were together, the older children [playing outside] would have nowhere to play" (Mother Dexameni).

However, when asked the same question, a few parents argued that removing the fence would allow increased tolerance of adult play.

"It would allow more goings inside and outside and maybe this perception of 'now I am in the playground' would be less strong and maybe I would play more inside the playground" (Father, Dexameni).

4. Discussion: connecting boundary

Although the playground fence is commonly approached by designers as the linear border of a purpose-focused space, its materiality and other characteristics afford play and playful interactions. According to the participants, the fence, as a boundary, was not charged with predefined behaviors compared with playground space and equipment. This indeterminacy allowed people to explore their playfulness and use the fence in new ways. Play manipulates and repurposes space, challenging its classification and hierarchy ([Edmiston, 2010](#); [Glenn et al., 2012](#); [Gordon, 2009](#); [Zinsser, 1987](#)). In our case study, the physical characteristics of the fences, such as simple differences in the width and height of the concrete base as well as the height and design of the bars, were sufficient to afford a variety of actions (i.e., sitting, walking, climbing, or hanging) for children of various age groups and with different abilities, often complementing age-specific and child-oriented playground structures. We were surprised to observe that children were comfortable exploring diverse games on the fence, and adult play was tolerated, in contrast to playground spaces where adult play was judged and adults judged children's play. At the same time, the fences' materiality allowed physical transgressions and interaction between the playground and its surrounding space. In all the cases, the fences were understood and valued as solid and porous, supporting games and allowing play to extend toward adjacent spaces.

Challenging the majority of studies that critique playground space as confining ([Atmakur-Javdekar, 2016](#); [Aziz and Said, 2016](#); [Carroll et al., 2019](#); [Cunningham and Jones, 1999](#); [Heseltine and Holborn, 1987](#); [Jacobs, 1961](#); [Matthews, 1995](#); [Woolley, 2007](#)), this study contributed contrary and thus significant findings to the literature that the playground fence does not segregate but rather afford play. Notably, by affording play, the playground fence supports power negotiations in public spaces, thereby allowing children to create their own spaces (see [Beazley, 2000](#); [Hill and Tisdall, 2014](#); [Jones, 2000](#); [Kylin and Bodelius,](#)

2015; Matthews et al., 2000; Rasmussen, 2004). This finding offers a complex and nuanced perspective on the idea of playgrounds as fixed locations with predetermined purposes that structure children's lives and place in a city (Zeihner, 2003). The playground fence, as a spatial configuration created to keep "the other" outside, emerged as blurred though physically defined. When play occupied the fence, that is, taking place in, through, around, and outside the boundaries, it blurred the limits of the playground space, with boundaries becoming the center of play activities. This behavior allowed play to extend beyond the playground in different ways, thereby establishing a play area outside designated limits. This phenomenon is particularly important in the context of cities such as Athens, with extremely limited play infrastructures and public spaces. A fence's physicality and lack of behavioral prescription permit new possibilities and relationships between social actors and physical elements. This concept extends further toward surrounding areas inside and outside a playground, thereby subverting the identity of the border and reinventing use and symbolisms. Similar to situational games (Andreotti, 2000; Vanolo, 2018), play using the existing spatial environment and "misappropriating" existing structures allowed the subjects to reappropriate the city on their own terms. Therefore, this study significantly contributed to the growing literature on play in the city by challenging the dominant narrative in this field, which approaches playgrounds as free-standing segregated spaces that are incompatible with broad conceptualizations of play in the city (Alfrink, 2014; Borden, 2007; Chatterton and Hollands, 2002; Davison and Lawson, 2006; Donoff and Bridgman, 2017; Gospodini and Galani, 2006; Stevens, 2007). Our observations structured the image of the playground as the cradle of everyday and bottom-up play phenomena, which, in contrast to the discussion in Section 1.1 (i.e., *URBACT*, 2017), changed the everyday character and use of not only playgrounds but also surrounding piazzas (see also Pitsikali and Parnell, 2019). Contrasting previous findings (Aziz and Said, 2016), the piazzas engaged and supported children's play despite not being designed to address children's needs (see also Yates and Oates, 2019). By reappropriating playground boundaries, playground users are "playing the system" (Stenros, 2014, 208) and reversing spatial semantics. Hence, they transform the playground from an enclave in a public space into a catalyst of public play. Space does not act merely as the context or stage where practices are performed but rather as an "equal participant" in the reality of the field, making architecture "not as a thing but as a production of space, time and social being" (Borden, 2007, 1).

"The city creates conditions for play because, like play activity itself, it situates objects in new, unconventional relationships, [and] it enhances the recognition of connections, which are not about instrumentality or power" (Stevens, 2007, 17).

5. Limitations

The findings of this study were not population specific, as our research engaged in the socio-spatial phenomenon of

the playground in urban public spaces via ethnographic means. This study focused primarily on the participants' interactions with playground fences and related to a broad age group. Complementary research could focus on how characteristics, such as specific age groups, culture, or sex, may affect fences' affordances. Furthermore, unaccompanied children, as a population group, would potentially be of special interest owing to their assumed freedom of movement. However, this group was not included in this study owing to ethical limitations. Findings would be informative if future research includes the accounts of such children to offer a complete picture of the field. Further research could include comparative studies of other cities or countries, drawing lines among different cultural contexts. Finally, this study focused only on typical standardized public playgrounds in a public context. Thus, further research exploring radical and nonstandard playground designs could potentially produce complementary or contrasting results, thereby providing a clear picture of the potential of fence designs to influence behavior.

6. Conclusion

While the dominant discussion in this field often attaches negative qualities to playground space in terms of its capacity to support children in the public realm, our observations show that fences' materiality, which affords various expressions of play, supports the playground paradox (Pitsikali and Parnell, 2019) and the extension of play to areas in a city not designated for play. These observations can encourage useful design principles to support play in the city and inform designers and planners interested in reconceptualizing play in the city. The potential of playground space to "other" children, thereby negatively limiting experiences through physical segregation and prescriptive norms, should not be overlooked. However, this paper focuses attention on qualities that allow transgression of "othering" design intentions and the reconceptualization of playground design. The paradox emerging from this study highlights the need to redesign playgrounds as an organic and indispensable part of the cityscape and public life. Specifically, this study suggests opportunities presented by fences to achieve this goal.

Alfrink (2014) argued that play in the city entails the appropriation of space and its use in ways that differ from those intended "by appropriating physical space, a kind of resistance is enacted" (539). Building on this argument, we highlight the potential of the reutilization of dispersed playgrounds to affect a city on a large scale, specifically through the reconceptualization of playground boundaries as a type of soft-urbanism "reprogramming" (Ibid, 533) space. The United States–Mexico border installation (Bakare, 2019; Rael, 2017) and MUF playgrounds (2010, 2006) that allow boundaries to afford play challenge the dominant discourse that constructed the fence as a separating element. The design projects of Rael (2017) on the United States–Mexico border approach the wall as an infrastructure. Although the scale of the United States–Mexico border question does not allow direct

comparison, it offers an inspiring example of how borders and boundaries might be challenged if not defied. According to Rael (2017), these types of designs “challenge the existence of the wall in its conception, function and future” (4). If spatial designers want to support children’s presence and play in the public realm, then we should direct our focus⁶ toward the boundaries and physical characteristics of playgrounds and use these features to reinforce the connections between playground spaces and their surroundings. The themes of indeterminacy, climbability, playability, porosity, and solidity that emerge from our observations and analysis can be used as generic design principles to reconceptualize and potentially inform design. This study highlights the need for designs that reimagine the playground fence as part of the public space infrastructure, offering affordances and challenging the segregating nature of boundaries. As Stevens (2007) argued, “Urban design should be loose, because in cities, behaviour and meanings are slippery, they remain at play” (219). Similarly, Castonguay and Jutras (2010) expressed that, “after safety, the main concern should be to provide a variety of affordances for play in the same location, rather than any specific equipment” (108). Meanwhile, as the interpretable, indeterminate design of the playground fence is one of the characteristics that support its popularity, we can argue that the use of less prescriptive play-structure designs be included in playgrounds to support the emergence of the transgressive behaviors described previously. Ambiguous play structures focusing on multiple affordances rather than prescribed use can potentially cater to different physical abilities and enhance intergenerational as well as children’s play in the city.

In summary, the findings of this study can enrich the literature on playgrounds and play in the city by focusing on an often-overlooked aspect of playground space, that is, the fence. Although the boundaries of playground space, which are important for its existence according to local laws (Ministry of internal affairs, 2009, 11809–11810), are rarely discussed in design discourse, this study proves the phenomenon of play taking place on, through, and around the playground fence. Challenging the dominant literature approaching the playground as a segregated space, this study highlights the importance of supporting play inside the playground and most important, in its surrounding space. Bearing physical qualities that afford play, the fence emerges as blurred and an element that questions spatial classifications and hierarchies, transgressing prescriptive design. These findings are particularly significant in design disciplines, offering useful principles for designs that can support play in the city.

Conflict of interest

The authors declare that there is no conflict of interest.

⁶ Utilizing participatory design with children whenever possible (i.e., Firinci-Orman, 2013; Iltus and Hart, 1995; Loebach, 2011; Yates and Oates, 2019).

Appendix

Table 1 Interview guide (The questions relevant to this paper are in bold).

GENERAL	<p>1A. Do you come here from far away?</p> <p>1B. Do you live in the neighbourhood?</p> <p>2A. Do you come here often?</p> <p>2B. How often do you come?</p> <p>3A. Why do you come to this playground? Is it your first choice or do you prefer it for convenience?</p> <p>3B. What do you like here?</p> <p>3C. Why don’t you go to another playground?</p> <p>4. What do you think about this piazza and this playground?</p> <p>5A. Where else do you go with children for play?</p> <p>5B. Which are your criteria for choosing a play-space?</p> <p>6A. How long does your visit last?</p> <p>6B. Why/when are you leaving?</p> <p>7. Do you know the people here?</p> <p>8. Do you make new friends/get to know other parents?</p> <p>9A. Does the weather affect your visit? In what ways?</p> <p>9B. Do you plan in advance to meet friends here?</p>
PLAY	<p>10A. Do you play in the playground? Why not? Where? When? What?</p> <p>10B. Do you play in the piazza?</p> <p>11A. Would you play if the space was different?</p> <p>11B. How would you like it to be for you to play?</p> <p>12. What do you think about the playground and the structures?</p> <p>13. Are there opportunities for adults to play in Athens?</p> <p>14. Do you play with the children elsewhere? Where? Why?</p> <p>15. Did you use to come here before the children?</p> <p>16A. What do you do, while the children are playing?</p> <p>16B. Do you intervene/help them?</p> <p>17. Where do you usually sit in the playground?</p> <p>18. Why do you sit here (in the piazza)?</p> <p>Questions asked only to children:</p> <p>19. Where do you like to play? Why?</p> <p>20A. Where would you like to play? Why?</p> <p>20B. Who do you play with?</p> <p>21A. Do the adults play with you?</p> <p>21B. Do you mind when this happens?</p>
OUTSIDERS	<p>22A. Do people that do not accompany any child come in the playground? Why/Why not?</p>

(continued on next page)

Table 1 (continued)

	22B. Why do you believe they prefer this space
	22C. How do/would you react?
	<u>Questions asked only to outsiders:</u>
	23A. Do you feel welcomed in the playground?
	23B. How do parents react at your presence?
	24. Why do you prefer this space (playground) and not the piazza?
	25. Would you come here if it wasn't for this playground?
	26. Do you play?
BOUNDARIES	27. Up to where do you let your children go inside this space? Why?
	28. How does space affects this decision?
	29. Do you allow the children to visit the space on their own?
	30A. What do you think about the playground's fence?
	30B. Is it necessary? Could it be omitted from the design?
	31A. What do you think of the playground's safety?
	31B. How do you define safety in the playground?
	32. Would you like it if the piazza and the playground space were connected?
RULES	33A. What do parents usually do here?
	33B. Have you seen anyone play?
	34. Who do you think should be allowed to use the playground space? Why?
	35A. Are there any rules concerning access?
	35B. Should people close the door upon entering? If they don't?
	36. Do children play differently here than they do in the house? In what ways?
	37A. What do you think of the fact that the playground is in the public piazza?
	37B. Do you consider it has a positive or a negative relation and why?
SPACE	38. Describe the ideal playground
	<u>Question asked only to children:</u>
	39. Which space do you like the most? The playground or the piazza? Why?

Unless indicated otherwise, the questions referred to participants of all ages.

References

- Aaron, D., 1965. *Child's Play: A Creative Approach to Playspaces for Today's Children*. Harper and Row, London.
- Aitken, S.C., 2001. *Geographies of Young People: the Morally Contested Spaces of Identity*. Routledge, London.
- Alfrink, K., 2014. The gameful city. In: Walz, S.P., Deterding, S. (Eds.), *The Gameful World: Approaches, Issues, Applications*. MIT press, Cambridge, pp. 527–560.
- Allin, L., West, A., Curry, S., 2014. Mother and child constructions of risk in outdoor play. *Leisure Stud.* 33 (6), 644–657.
- Andreotti, L., 2000. Play-tactics of the "Internationale Situationniste", vol. 91. MIT Press, pp. 36–58.
- Angrosino, M., 2007. *Doing Ethnographic and Observational Research*. Sage, London.
- Atmakur-Javdekar, S., 2016. Children's play in urban areas. In: Evans, B., Horton, J., Skelton, T. (Eds.), *Play and Recreation, Health and Wellbeing*. Springer, Singapore, pp. 109–134.
- Aziz, N.F., Said, I., 2016. Outdoor environments as children's play spaces: playground affordances. In: Evans, B., Horton, J., Skelton, T. (Eds.), *Play and Recreation, Health and Wellbeing*. Springer, Singapore, pp. 87–108.
- Bakare, L., 2019. Pink Seesaws Reach across the Divide at US-Mexico Border. *Guardian*. Retrieved 15/11/2019 from: <https://www.theguardian.com>.
- Ball, S.J., 1990. Self-doubt and soft data: social and technical trajectories in ethnographic fieldwork. *Int. J. Qual. Stud. Educ.* 3 (2), 157–171.
- Beazley, H., 2000. Home sweet home?: street children's sites of belonging. In: Holloway, S.L., Valentine, G. (Eds.), *Children's Geographies: Playing, Living, Learning*. Routledge, London, pp. 167–181.
- Blackford, H., 2004. Playground panopticism ring-around-the-children, a pocketful of women. *Childhood* 11 (2), 227–249.
- Borden, I., 2007. Tactics for a playful city. In: Von Borries, Walz, S.P., Boettger, M. (Eds.), *Space Time Play: Computer Games, Architecture and Urbanism: the Next Level*. Birkhauser Verlag AG, Boston, pp. 332–334.
- Boyatzis, C.J., 1987. The effects of traditional playground equipment on preschool children's dyadic play interaction. In: Fine, G.A. (Ed.), *Meaningful Play, Playful Meaning*. Human Kinetics Publisher, Champaign IL, pp. 101–110.
- Carroll, P., Calder-Dawe, O., Witten, K., Asiasiga, L., 2019. A prefigurative politics of play in public places: children claim their democratic right to the city through play. *Space Cult.* 22 (3), 294–307.
- Carspecken, P., 1996. *Critical Ethnography in Educational Research: A Theoretical and Practical Guide*. Routledge, New York.
- Castonguay, G., Jutras, S., 2010. Children's use of the outdoor environment in a low-income montreal neighborhood. *Child. Youth Environ.* 20 (1), 200–230.
- Chatterton, P., Hollands, R., 2002. Theorising urban playscapes: producing, regulating and consuming youthful nightlife city spaces. *Urban Stud.* 39 (1), 95–116.
- Cole-Hamilton, I., Gill, T., 2002. *Making the Case for Play: Building Policies and Strategies for School – Aged Children*. National Children's Bureau enterprises Ltd, London.
- Cunningham, C.J., Jones, M.A., 1999. The playground: a confession of failure? *Built. Environ.* 25 (1), 11–17.
- Dattner, R., 1969. *Design for Play*. Van Nostrand Reinhold, London.
- Davison, K.K., Lawson, C.T., 2006. Do attributes in the physical environment influence children's physical activity? a review of the literature. *Int. J. Behav. Nutr. Phys. Activ.* 3 (1), 19–35.
- Day, R., Wagner, F., 2010. Parks, streets and 'just empty space': the local environmental experiences of children and young people in a Scottish study. *Local Environ.* 15 (6), 509–523.
- Deterding, S., 2014. The ambiguity of games: histories and discourses of a gameful world. In: Walz, S.P., Deterding, S. (Eds.), *The Gameful World: Approaches, Issues, Applications*. MIT press, Cambridge, pp. 23–64.
- Donoff, G., Bridgman, R., 2017. The playful city: constructing a typology for urban design interventions. *Int. J. Play* 6 (3), 294–307.
- Edmiston, B., 2010. Playing with children, answering with our lives: a Bakhtinian approach to coauthoring ethical identities in early childhood. *Br. J. Educ. Stud.* 58 (2), 197–211.
- Firinci-Orman, T., 2013. My dream playground workshop: involving children in participatory design. In: ARCHHIST'13 Conference – Politics in the History of Architecture as Cause and Consequence; Istanbul, 24–27 April 2013.

- Flyvbjerg, B., 2001. *Making Social Science Matter: Why Social Enquiry Fails and How it Can Succeed Again*. University Press, Cambridge.
- Gagen, E.A., 2000a. An example to us all: child development and identity construction in early-twentieth century playgrounds. *Environ. Plann.* 32, 599–616.
- Gagen, E.A., 2000b. Playing the part: performing gender in America's playgrounds. In: Holloway, S.L., Valentine, G. (Eds.), *Children's Geographies: Playing, Living, Learning*. Routledge, London, pp. 213–229.
- Gagen, E.A., 2001. Too good to be true: representing children's agency in the archives of the playground movement. *Hist. Geogr.* 29, 53–64.
- Galani, B., 2011. *Πόλη Και Παιδί: Διερεύνηση Των Παραμέτρων Επιλογής Του Τόπου Παιχνιδιού Στο Δημόσιο Υπαίθριο Χώρο Της Πόλης*. Thesis. University of Thessaly, Department of Urban planning, Volos.
- Geertz, C., 1973. *The Interpretation of Cultures*. Basic Books, New York.
- Gill, T., 2007. *No Fear: Growing up in a Risk-Averse Society*. Calouste Gulbenkian Foundation, London.
- Glenn, N.M., Knight, C.J., Holt, N.L., Spence, J.C., 2012. Meanings of play among children. *Childhood* 20 (2), 185–199.
- Gol-Guven, M., 2016. Who is holding the longer stick? The power of adult presence on children's play. *Int. J. Play* 5 (2), 123–127.
- Gordon, G., 2009. What is play?: in search of a definition. In: Kuschner, D. (Ed.), *From Children to Red Hatters: Diverse Images and Issues of Play*. University Press of America, Lanham, pp. 1–13.
- Gospodini, A., Galani, V., 2006. Street space as playground: investigating children's choices. *Environ. Behav.* 1 (3), 353–362.
- Goumopoulou, G., 2007. Ελεύθεροι χώροι πρασίνου στην πόλη. η περίπτωση των παιχνιδότοπων. *Monumenta* 1. Retrieved 17/02/2020 from: <https://www.monumenta.org>.
- Gülgönen, T., Corona, Y., 2015. Children's perspectives on their urban environment and their appropriation of public spaces in Mexico City. *Child. Youth Environ.* 25 (2), 208–228.
- Heseltine, P., Holborn, J., 1987. *Playgrounds: the Planning, Design and Construction of Play Environments*. Mitchell, London.
- Hill, M., Tisdall, K., 2014. *Children and Society*. Routledge, London.
- Holloway, S.L., Valentine, G., 2000. Children's geographies and the new social studies of childhood. In: Holloway, S.L., Valentine, G. (Eds.), *Children's Geographies: Playing, Living, Learning*. Routledge, London, pp. 1–28.
- Iltus, S., Hart, R., 1995. Participatory planning and design of recreational spaces with children. *Archit. Comportement//Archit. Behav.* 10 (4), 361–370.
- Jacobs, J., 1961. *The Death and Life of Great American Cities*. Random House, New York.
- Jones, O., 2000. Melting geography: purity, disorder, childhood and space. In: Holloway, S.L., Valentine, G. (Eds.), *Children's Geographies: Playing, Living, Learning*. Routledge, London, pp. 29–47.
- Kaisari, V., 2005. *Το Παιδί Και Ο Αστικός Χώρος: Το Παιχνίδι Του Παιδιού Σχολικής Ηλικίας Στον Αστικό Χώρο*. Thesis. NTUA, Department of Urban Planning, Athens.
- Katsabounidou, G., 2015. 'Πού είναι τα παιδιά;' δημόσιοι χώροι για παιχνίδια στη πόλη του μοντέρνου. In: Gerolymou-Karadimou, A., Tournikiotis, P., Vitopoulou, A. (Eds.), *DO.CO.-MO.MO.: Η Ελληνική Πόλη Και Η Πολεοδομία Του Μοντέρνου*. Futura, Athens, 117-103.
- Kinchin, J., O'Connor, A., 2012. *Century of the Child: Growing by Design*. The Museum of Modern Art, New York.
- Kylin, M., Bodelius, S., 2015. A lawful space for play: conceptualizing childhood in light of local regulations. *Child. Youth Environ.* 25 (2), 86–106.
- Lady Allen of Hurtwood, 1953. *Adventure Playgrounds*. National Playing Fields Association, London.
- LeCompte, M.D., Schensul, J.J., 2010. *Designing and Conducting Ethnographic Research: an Introduction (Ethnographer's Toolkit)*, second ed. Altamira Press, Plymouth.
- Loebach, J., 2011. The magical park of Aviacion: lessons from a participatory design project with the children of Aviacion, Peru. *PlayRights* 11 (2), 1–9.
- Luken, E., Carr, V., Douglas-Brown, R., 2011. Playscapes: designs for play, exploration and science. *Child. Youth Environ.* 21 (2), 325–337.
- McKendrick, J.H., Bradford, M.G., Fielder, A.V., 1999. Privatization of collective play spaces in the UK. *Built. Environ.* 25 (1), 44–57.
- McKendrick, J.H., Bradford, M.G., Fielder, A.V., 2000. Time for a party!: making sense of the commercialisation of leisure space for children. In: Holloway, S.L., Valentine, G. (Eds.), *Children's Geographies: Playing, Living, Learning*. Routledge, London, pp. 100–118.
- Maniou, M., 2012. *Το Παιδί Στην Ελληνική Πόλη Της Παγκοσμιοποίησης*. PhD Thesis. NTUA, Department of Architecture, Athens.
- Mason, J., 2002. *Qualitative Researching*, second ed. Sage, London.
- Matthews, H., 1995. Living on the edge: children as outsiders. *Tijdschr. Econ. Soc. Geogr.* 86 (5), 456–466.
- Matthews, H., Limb, M., Taylor, M., 2000. The street as thirdspace. In: Holloway, S.L., Valentine, G. (Eds.), *Children's Geographies: Playing, Living, Learning*. Routledge, London, pp. 63–79.
- Maxey, I., 1999. Playgrounds: from oppressive spaces to sustainable places? *Built. Environ.* 25 (1), 18–24.
- Ministry of internal affairs, 2009. *Definition of the Conditions and Technical Specifications for the Construction and Operation of Playgrounds on Municipalities and Communities*. Government Gazette, Athens.
- Ministry of Internal Affairs, 2014. *Amending and Supplementing 28492/2009 (B 931) on the Organization and Operation of Municipality Playgrounds*. Government Gazette, Athens.
- Mitoulas, N., 2005. *Η Παιδική Κλίμακα, Το Εκπαιδευτήριο Και Η Γειτονιά*. NTUA, Department of Architecture, Athens. Thesis.
- Moore, R.C., Cosco, N.G., 2007. What makes a park inclusive and universally designed?: a multi-method approach. In: Ward Thompson, C., Travlou, P. (Eds.), *Open Space People Space*. Taylor and Francis, London, pp. 85–110.
- Muf Architecture/Art, 2006. *Seabrooke Rise Play 2006*. <http://muf.co.uk/portfolio/seabrooke-rise/>.
- Muf Architecture/Art, 2010. *Wick Green 2010*. <http://muf.co.uk/portfolio/wick-green/>.
- Murnaghan, A.M.F., 2013. Exploring race and nation in playground propaganda in early twentieth-century Toronto. *Int. J. Play* 2 (2), 134–146.
- Nasar, J.L., Holloman, C.H., 2013. Playground characteristics to encourage children to visit and play. *J. Phys. Activ. Health* 10 (8), 1201–1208.
- Oltwig, K.F., Gulløv, E., 2003. *Children's Places: Cross-Cultural Perspectives*. Routledge, London.
- Pitsikali, A., Parnell, R., 2019. The public playground paradox: "child's joy" or heterotopia of fear? *Child Geogr.* 17 (6), 719–731.
- Punch, S., 2012. Hidden struggles of fieldwork: exploring the role and use of field diaries. *Emot. Space Soc.* 5 (2), 86–93.
- Rael, R., 2017. *Borderwall as Architecture: A Manifesto for the U.S.-Mexico Boundary*. University of California Press, California.
- Rasmussen, K., 2004. Places for children – children's places. *Childhood* 11 (2), 155–173.
- Refshauge, A.D., Stigsdotter, U.K., Specht Petersen, L., 2013. Play and behavior characteristics in relation to the design of four Danish public playgrounds. *Child. Youth Environ.* 23 (2), 22–48.
- Saldana, J., 2009. *The Coding Manual for Qualitative Researchers*. Sage, London.

- Santos, D., Anderson, N., Hutchinson, D., 2018. Fox palaces: the playful occupation of a Johannesburg city park. *Child Geogr.* 16 (4), 368–379.
- Solomon, G.S., 2005. *American Playgrounds: Revitalizing Community Space*. University Press of New England, London.
- Stavrides, S., 2015. Common space as threshold space: urban commoning in struggles to re-appropriate public space. *Footprint: Delft Architect. Theor. J.* Spring 16, 9–20.
- Stenros, J., 2014. Behind games: playful mindsets and transformative practices. In: Walz, S.P., Deterding, S. (Eds.), *The Gameful World: Approaches, Issues, Applications*. MIT press, Cambridge, pp. 201–222.
- Stevens, Q., 2007. *The Ludic City: Exploring the Potential of Public Spaces*. Routledge, London.
- Thomson, S.J., 2003. A well-equipped hamster cage: the rationalisation of primary school playtime. *Educ* 31 (2), 54–59, 3-13.
- Thomson, S.J., 2005. 'Territorialising' the primary school playground: deconstructing the geography of playtime. *Child Geogr.* 3 (1), 63–78.
- Thomson, J.L., Philo, C., 2004. Playful spaces? A social geography of children's play in Livingston, Scotland. *Child Geogr.* 2 (1), 111–130.
- URBACT, 2017. The playful Paradigm: using 'games' as a flexible and innovative way for healthy and sustainable place-making. Retrieved 15/11/2019 from: <https://urbact.eu/playful-paradigm>.
- Valentine, G., 1996. Children should be seen and not heard: the production and transgression of adults' public space. *Urban Geogr.* 17 (3), 205–220.
- Vanolo, A., 2018. Cities and the politics of gamification. *Cities* 74, 320–326.
- Weck, S., 2019. Together apart' or 'apart together'? – middle-class parents' choice of playgrounds and playground interactions in socially diverse neighbourhoods. *Soc. Cult. Geogr.* 20 (5), 710–729.
- White, R., 1993. Youth and the conflict over urban space. *Child. Environ.* 10 (1), 447–465.
- Woolley, H.E., 2007. Where do the children play?. In: *Proceedings of the Institution of Civil Engineers - Municipal Engineer*, 160, pp. 89–95 (2).
- Yates, E., Oates, R., 2019. Young children's views on play provision in two local parks: a research project by early childhood studies students and staff. *Childhood* 26 (4), 491–508.
- Zeicher, H., 2003. Shaping daily life in urban environments. In: Christensen, P., O'Brien, M. (Eds.), *Children in the City Home, Neighborhood and Community*. Routledge Falmer, London, pp. 66–81.
- Zinsser, C., 1987. Playing around: children's play under constraint. In: Fine, G.A. (Ed.), *Meaningful Play, Playful Meaning*. Human Kinetics Publishers, Champaign IL, pp. 75–84.