Neighbourhood Design

Working with children towards a child friendly city



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About the authors

Dinah Bornat is co-director at ZCD Architects in Hackney, East London.

Ben Shaw is a freelance researcher and works part-time at the University of Surrey as Deputy Director of the Centre for Evaluation of Complexity Across the Nexus (CECAN).

Further information about the authors and contributors can be found on page 120.

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Foreword by the Mayor of Hackney

Summary



Collage by Year 5 pupil at De Beauvoir Primary School

'For example, the woman upstairs, she complains about what we do. Sometimes we are chatting. It's like a local area where we can just chat in the courtyard, isn't it. But sometimes we just talk and afterwards we get into trouble for it, even though we don't play any ball games. But it only says don't play ball games there, it doesn't say don't chat or something like that. And like I said before there aren't like that much resources to play with so sometimes you get a bit bored' Girl, Year 5 Twenty-five per cent of London's population are under the age of 18. A significant proportion, but in spite of this, children are largely unrepresented in urban development policy and practice.

This report sets out to correct the imbalance by looking at a local neighbourhood through the eyes of children. We have worked with children, listened to them, observed their activities and analysed their use of outside spaces. Our conclusions propose new ways of considering space, urban design and participation to better meet the needs of the younger generation, and in turn the rest of society.

We chose to base our project in the London Borough of Hackney. The Council has made a public commitment to becoming a child-friendly borough and is keen to understand how to put this into practice. On the advice of the Mayor, Philip Glanville we have carried out our nine-month long study within the De Beauvoir Estate and with children from the nearby De Beauvoir Primary School.

The estate, in the south-west corner of the borough, was built in the 1970s and is a good example of a 'mixed development' with a range of flat types, maisonettes and terraces and an abundance of open spaces. Having the identity as a local community, it offered us the opportunity to study the public spaces and make comparable observations between different spatial configurations. While focused on a particular estate our conclusions and recommendations are relevant locally as well as to other boroughs, housing associations, designers and developers across the capital and cities across the UK.

Our approach

Children have rights and we have grounded our work in the context of Article 31 of the United Nations Convention on the Rights of the Child, with the further detail provided by General Comment 17 which calls for 'the need to create time and space for children to engage in spontaneous play, recreation and creativity, and to promote societal attitudes that support and encourage such activity.' The importance of play to children has been a vital principle of this work and also a means of engaging children on a topic on which they all have experience and views.

Our intention for this project was to put children at the heart of the research. We wanted to test techniques for engaging children and obtaining their perspectives that could be applied in other neighbourhoods across the Hackney and in further development projects. To do this we created an eight week programme of work with children from Year 5 in De Beauvoir Primary School. This included more than 12 sessions of research, photography, discussion and creative writing. The work culminated in an exhibition at the school in May 2018. The exhibition was co-created and curated by the photographer Madeleine Waller who helped the children produce the striking series of photographs and collages on display that day to the Mayor and Deputy Mayor of Hackney, parents, carers and siblings.

The programme of research with the children was augmented by independent observational research work carried out in a series of spaces across the estate, yielding over 110 hours of data and contributing to a richer understanding of the neighbourhood.

What's it like where you live?

'Yeah absolutely fantastic... not just playgrounds, but my area!'

The project has explored four themes, which form the structure of chapters 3 to 6:

1. Understanding children

Our work with the children has built up a rich picture of the experience of growing up in Hackney. Children for the most part are very positive about their experiences. However, there are concerns and issues that need to be addressed. Children are very aware of adult behaviours and these impact on their lives including the effect of traffic, alcohol, drugs, knives and adult mental health problems in the community. Most of the children say they are able to play outside without adults and half are allowed to go and call on friends on their own. However, they are often at the bottom of the hierarchy in claims on use of public space, with an intolerance of children's behaviours and play often reported. These all areas where interventions are needed to move to a more child-friendly Hackney.

2. Understanding spaces

We conducted extensive work to understand the spaces on the De Beauvoir Estate. This used traditional approaches to mapping and observation of the use of space but has been complemented with novel approaches that allow children to articulate how they use space – through photography, discussions and walking tours. It has only been possible to build up a clear picture of the use of space by using this range of methods, as many of the insights we gained would not have become apparent without the involvement of the children. The De Beauvoir Estate has a complex spatial arrangement with a wide variety of spaces which are used in different ways. This has been useful to us as it has revealed that children across the estate are getting very different everyday play experiences. In general children play close to home and rely on easy access to shared spaces that are well overlooked. If this is not available then playing outside and meeting friends is less likely to happen.

3. New ways of mapping

Central to our project was the aim to develop new ways of mapping urban neighbourhoods that are more responsive to children's behaviour and their needs. The maps we have produced highlight where interventions can be made to improve the space for children as well as other residents. More generally the mapping approaches we have developed are aids to measuring social value, masterplanning, designing and evaluating spaces that should become an intrinsic part of urban development of residential neighbourhoods.

4. New ways of engaging children

We have used a range of methods in the project to understand what is feasible, what works best and is most effective in gaining the views of children on their local area. We have had a particular interest in the degree to which the different methods enable us to get space-specific insights rather than general comments on children's lives. Engaging children is critical and the methods we have used such as photography, walking tours, and exhibition allowed us to build a rapport so that we could then use other methods which may be less exciting for children. Together these approaches have given us rich insights into children's lives and use of space. We suggest how children should be better considered in participation and consultation processes, requiring a combination of good advocacy as well as ways of listening and appropriate principles for design, delivery and management of estates and local neighbourhoods.

Conclusions

Bringing children's lived experience to bear on planning and built environment policy offers a way to better provide for their needs in that setting. Within this, a focus on play provides a targeted approach towards a tangible and desirable outcome, one that is central to children's daily lives and ultimately their own sense of self and well-being.

In a broader policy context, our suggestions for a new approach offer a way of addressing issues of social value. By joining up with other policy areas such as public health and transport it could further strengthen our understanding of complex urban systems, how these affect people in their daily lives and how we might plan to manage change and measure outcomes.

Fundamentally though it gives children and young people, a significant minority group, a platform through which they are better represented and can engage more effectively with these systems, challenging commonly held norms about the spaces we create in local neighbourhoods and who these might be for.

In the context of planning and housing design, children and young people's needs are regularly misunderstood or even simply overlooked by policy and practice. Yet local neighbourhoods matter to them; satisfying their basic daily needs, supporting their growing independence and contributing to their sense of self and well-being.

With increasing pressure on land and sites to provide more dwellings and at greater densities, children and young peoples' neighbourhoods are changing. But the lack of appropriate evidence and research to support good planning and design guidance for them, alongside a lack of meaningfully engagement in the process of change, means that they are all too often left out of the picture.

To add to this, where it exists, child-focused research and policy efforts to date often focuses on outcomes such as resilience, tackling obesity, mental health problems or screen addiction.

This report moves away from a partitioning of behaviours, towards a more holistic understanding of children and their lives, by focussing on their right to move around their local area safely and in accordance with their own wishes and desires. We do this by both listening to children themselves and by observing how they use spaces, drawing conclusions that suggest that the design and layout of a neighbourhood can have a real and lasting impact on their lives.

Key messages from this project

Policy and participation

- 1. Children's needs are underrepresented in urban development and planning processes. This needs addressing at a national, regional and local level.
- 2. Participation needs to involve listening to children on their own terms. There are huge benefits to be gained from allowing children the time and space to talk about their lives and local area which can inform better urban development, both for children and the wider community. The methods we have used and described in this report are means of achieving this.
- 3. Participation needs to be led by children's experiences of space. The expertise of children to be able to bring life and insight to a place through their stories and descriptions is invaluable to professionals working on urban development. The knowledge of children needs to be paired with the expertise of urban professionals in design and delivery. Engagement of children must focus on the lived experience not abstract concepts of urban design.

Advocate and provide for what children need: Space, Time and Permission

- 4. Promote play and independent mobility: urban professionals thinking about and shaping spaces need to understand the nature and importance of play to children if they are to design appropriate places. Play is important for children's immediate well-being, their health and their physical, social and mental development. Children enjoy play and have a right to it. They need to have the everyday freedom to get about their local neighbourhood to play.
- 5. Learn from children how they use space: if engaged appropriately, children can reveal uses of space and issues which are not obvious or apparent to parents, carers and urban development professionals. Children are inventive and experimental in the way they use space not just playgrounds to play. Given the chance, they tend to play everywhere, seek risk and excitement and don't necessarily play in the way adults expect or intend.
- 6. Give time and permission: children are acutely aware of adult behaviours in the external environment positive and negative and are significantly affected by them. Adults often prevent play and even create a perception amongst children of 'a presumption against play' but adults need to be enablers and supporters of play.

Address spatial, gender and age inequalities

- 7. Focus on spatial inequality; children are often at the bottom of the hierarchy in regard to claims on use of public space.
- 8. Focus on gender inequality; despite wanting to, girls play out and call on friends significantly less than boys.
- 9. Focus on teenagers; improve understanding about how teenagers use space in their local community and address inequalities that they face.

Child-focused design

- 10. Conventional spatial planning approaches, often concerned with efficient car, pedestrian and cycle movement, don't account for the meandering nature of children's play. A more nuanced approach at the local level that reemphasises the importance of 'defensible space' alongside connectively may be required to spaces for social use and play.
- 11. The new ways of mapping we have developed can be used to better visualise how children use space in their local neighbourhood and can form the foundation for new design guidance. Combined with observational research it offers a strong approach for analysing social value; providing new tools that can be used for predicting, planning and evaluating a local area.
- 12. For play to happen certain spatial attributes need to be present spaces need to be immediately accessible, overlooked by dwellings, car free and connected to another place or space. These attributes need to be built into policy and design guidance. Children can be the animators of social life in communities. Security measures such as fences and controlled gates intended to improve safety will restrict children getting about to meet friends and play and in turn may lead to less community activity and interactions that make a neighbourhood more safe.

This report is intended to set a clear agenda for child focused urban design, policies and participatory practice.a clear agenda for child focused urban design, policies and participatory practice.

By paying attention to the spatial, social and physical needs of children and young people, we believe neighbourhoods could be better, safer and more sociable places,.

This powerful way of thinking could herald better measurements for social value and post occupancy evaluation, championing good design and more inclusive practices from the outset.



Chapter 1

Introduction & Background

The needs and perspectives of children are largely overlooked in urban development, in spite of children forming a significant proportion of population and having particular needs. We believe that employing an approach to designing for children and young people based on the rights they have is a more effective way of meeting their needs than historical and current urban theories, which can be problematic and even detrimental.

In this chapter we provide an overview some of the challenges posed by current approaches to urban development and detail the conceptual underpinning of our approach necessary to deliver child-friendly cities. This includes adopting a rights-based approach, building an understanding of the nature of play and its importance to children's well-being and development, and enabling children's independent mobility. We start the chapter with an outline of why we are working in Hackney and a description of the De Beauvoir Estate which has been the focus of the project.

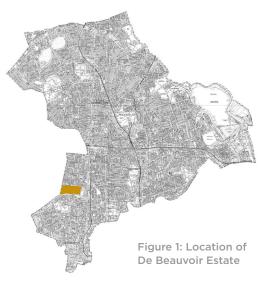
Hackney - setting the foundations for a child-friendly borough

In late 2016, Policy Studies Institute and ZCD Architects convened 'A Vision for 2026: Hackney the Child-Friendly City'. This agenda-setting summit, held at the Haggerston Community Centre, brought together decision makers, professionals, community-groups and NGOs involved in urban planning and development, transport, education, child development and health. With a focus on what the concept of child-friendly neighbourhoods might mean for the borough the event concluded with a challenge to the Mayor of Hackney to make the borough childfriendly by 2026. The event laid the groundwork for the current project and the focus on the De Beauvoir Estate. It also built on recent work undertaken both in the Hackney and further afield. For example, the Islington Fair Futures Commission (starting at the same time and publishing its recommendations in 2018) recently called on Islington Council to use its next Local Plan to set out a vision of how the borough will become child-friendly (Fair Futures Commission, 2018). The Commission recommended achieving this partly through ensuring all major developments include consultation with children. As is shown later in the report our work points to important questions around who is consulted and how.

Hackney isn't approaching this issue from a standing start. It is building on a history and culture of innovative and risk-taking investment. Most recently, the 2018 local election manifesto of the lead political group in Hackney states 'we want to work with the community to ensure that Hackney becomes a fully child-friendly borough and maximise the opportunities for safe play and outdoor activities across our streets, estates, parks, adventure playgrounds, new developments and open spaces as children and their families explore and discover the world around them.' (Hackney Labour, 2018)

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Some encouragement on progress on this agenda in Hackney can be taken from the January 2018 report, Hackney Wick Though Young Eyes (Billingham, 2018). This is both in terms of processes of engagement and progress to meet children and young people's needs. The Hackney Wick work involved 400 people between the ages of 8 and 20. It revealed the value of local parks, the adventure playground and open spaces and the extent to which these contributed to the young people's reasonably positive feelings about their local area. They also placed an importance on neighbours and felt that the area has a 'strong community' feeling'.



This project is intended to bridge between the concepts of a child-friendly city and the practical steps that are required to make it a reality in local neighbourhoods. Across Hackney, and more widely, there is significant potential for authorities and developers to engage with the idea of building places that promote young people's play and creativity. Recent research found that attempts to tackle the housing crisis through redevelopment across the city provide an opportunity both to increase young people's participation in creative endeavours, including play, and to equip them with the skills that will enable the rapidly growing creative sector to flourish over the long-term (Bacon and Bayram, 2016). However, participation needs to effectively engage children and one of the aims of this project is to explore how best this can be done. The project draws on a wide body of work relevant to the concept and practice of a child-friendly city and we outline key elements of this below, following a brief description of the focus of the study – the De Beauvoir Estate.

The De Beauvoir Estate

The De Beauvoir Estate was conceived by William Rhodes as a series of four grand squares, with only De Beauvoir Square being realised. It sits between Balls Pond Road to the north and Downham Road to the south and is in the south eastern corner of Hackney in London. Owned by the Benyon family the 19th century villas and terraces of the estate were designed for middle class families and to this day a sizeable percentage remain tenanted.

The land to the south of Downham Road, which fronts the Regents canal, was acquired from the Benyon family by the London Borough of Hackney in the 1960s for rebuilding and was allocated for council housing.

This report looks at that estate originally known as the New Town Estate, but now more commonly referred to, somewhat confusingly, as the De Beauvoir Estate. For the purposes of this study, we will use the name De Beauvoir Estate to refer to the 20th century estate.

Currently the two areas are markedly different in socioeconomic and demographic terms. According to the latest census data the De Beauvoir Estate suffers from

high crime rates, poor living conditions and child poverty ranking in the bottom 20 percent for deprivation. This is paired with a very high level of obesity among children on the estate, with 32 percent of Year 6 children measured as obese – one of the highest levels in both Hackney and England.

In terms of housing, recent data from Hackney Council shows that 58 percent of the 611 households with a live rent account are receiving housing benefit, and that 16 percent of these are overcrowded. Due to reporting incentives, however, it is highly likely that this figure is higher. 26 percent of the 611 households contain children and young adults under the age of 20, of which two thirds are below 16. It proved challenging to access accurate data on the total number of children currently residing on the estate.

Data like this alone does not reveal the full picture of people's lives in an area however. It is worth recognising that De Beauvoir has a long history of civic engagement: the book 'Own De Beauvoir!' by Jonathan Hoskins (2016) includes many first hand accounts of the tenants and leaseholders' campaigns against both the Benyon family and the council.

This research project acknowledges the depth and complexity of the community, as any other. However, it attempts to look deliberately and specifically at the estate through the eyes of children, studying the spaces and places, and talking to children themselves. The estate was identified by the Mayor of Hackney as being suitable for the study and other than a short introduction from a team in the borough and a conversation with the chair of the residents' association, all of the work has focused on the spaces and the children themselves.

The estate currently has over 800 dwellings in a variety of towers, lower blocks and terraces. There is infill development planned by the council and to a certain extent the residents that spoke to our research team during the study felt that their estate and spaces were under threat.



This report does not seek to propose sites that or more or less suitable for development. What it does is to look closely at the whole estate, understanding how the external spaces are able to contribute to play and social use. It is a fascinating place to study from a spatial point of view as there is huge variety in the type of spaces and consequently a huge variance in their use.

Circulation is complicated in a lot of instances, with split access and blank ground floors. Security fences and gates exist in some of the estate and we note that this is likely to hinder children's ability to move around freely to meet friends and play. Despite this there is plenty of space around the estate and plenty of instances of play to draw on.

Urban theory and designing for children

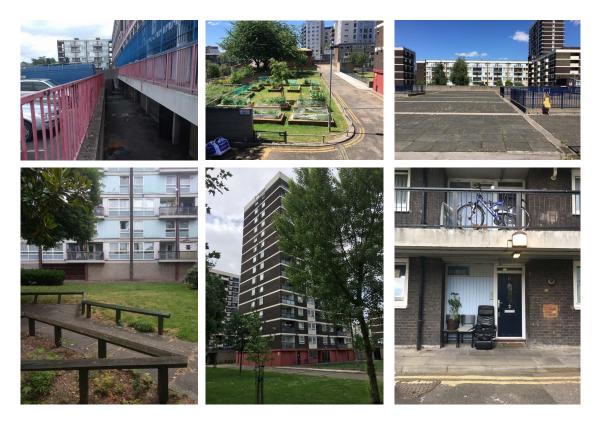
'If you can find children then the city is healthy' Enrique Peñalosa Mayor of Bogata, (Peñalosa and Ives. 2004).

In the post-war period, a number of estates were built across London and the UK with children's play at the heart of their design thinking. Alexandra Road and Highgate New Town in Camden are amongst many others, whose public spaces, walkways and galleries were conceived as playable spaces, from front door to the street.

The architectural historian Roy Kozlovsky describes children as having a 'paradoxical status' at this time as 'objects of social rights and affective investment, and at the same time..subjects who are conceptualized as immature and in need of education and care, and therefore legitimate targets of more intensive forms of governmentality and architectural design' (Kozlovsky 2013).

Housing schemes were more or less effective at providing for their social rights and their care in this way and we are encouraged to find during our visits to many estates across the country, that children still do play out in a number of them.

Despite these successes, the failures of other developments have allowed polemical narrative to emerge such as that by former Prime Minister David Cameron, writing in the Sunday Times in 2016. Cameron called for the 'bulldozing of sink estates' to make way for terraced streets, revealing a detestation for a shared spatial configuration. Cameron is not alone, it remains a highly politicised topic, influenced by competing agendas and players in a high stakes industry.



Images from around the estate

Nowadays the housing industry is dominated by a market-driven supply, with adult residents as customers and children, when represented at all, as sub-members of a family unit; articulated in planning policy through an agenda of choice and economic growth (see national and London planning policy for examples below). Add to this the reduction in local open spaces caused by ever increasing housing densities, as well as overcrowding and poorly maintained spaces and the picture begins to look particularly bleak for children.

Solutions to the perceived failures of the post-war housing estates all too often respond to the negative aspects that communities suffered and still do overcrowding, poverty, crime and drug use, against the backdrop of declining neighbourhoods. Whether solutions to these problems are about investment in services (Mumford and Power 2003) or spatial changes (Hillier et al 1989), they are less likely to focus on the unique and often positive aspects of childhood. For example, Hillier et al. call for better spatial 'integration' of estates into the surrounding network of streets, chiming somewhat with Cameron's call and taking an adult and pedestrian view, calling for 'urban safety by natural movement'.

In the current context, children are therefore destined to remain underrepresented, and overlooked in spatial planning policy, with play and independent mobility a competing and subsequently peripheral consideration.

Adopting a rights-based approach

Children have rights. These are enshrined in the United Nations Convention on the Rights of the Child (United Nations 1989) also known as the UNCRC. This creates an obligation on the UK government (along with all the other ratifying states) to take steps towards its implementation, including the creation of 'national strategies and action plans for children' (United Nations 2016).

The urban environment and the processes used to develop it need to respect these rights. Indeed, it has been argued that a rights-based approach to advocating for children and young people is not just a requirement but a more effective way to plan for their needs and active participation.

This is reflected in the Child-friendly Cities Initiative, launched by UNICEF in 1996. This aims to support city authorities in realising the rights of the child at a local level and acts as a network to bring together the full range of stakeholders. Child-friendly cities and communities are places where children can:

- 1. Influence decisions about their city
- 2. Express their opinion on the city they want
- 3. Participate in family, community and social life
- 4. Receive basic services such as health care and education
- 5. Drink safe water and have access to proper sanitation
- 6. Be protected from exploitation, violence and abuse
- 7. Walk safely in the streets on their own
- 8. Meet friends and play

- 9. Have green spaces for plants and animals
- 10. Live in an unpolluted environment
- 11. Participate in cultural and social events
- 12. Be an equal citizen of their city with access to every service, regardless of ethnic origin, religion, income, gender or disability

UNICEF is supporting a child-friendly city programme with four local authorities across the UK currently involved: Aberdeen City Council, London Borough of Barnet, Cardiff City Council and Newcastle City Council. Others have been involved since the initiative launch in 1996. The programme is concerned with participation and access to services aiming to 'profoundly change the way local government works with and for children'.

What is missing in these initiatives and what this report aims to cover, is the spatial dimension of children and young people's lives through local neighbourhood design, planning policy and development with play as a proxy for well-being and social value.

There is a body of work promoting the UNCRC in London which has focuses on spatial aspects. This includes the publication of the Mayor's Children and Young People Strategy (2004), the London Plan (2004) the Children's Plan (2007), and the Supplementary Planning Guidance (SPG) for Children and Young People's Play and Recreation (2008, updated in 2012). This localised work paved the way for a National Play Strategy in 2008 (applicable to England), unfortunately an early casualty of the 2010 Coalition government's policy cull.

Play

As well as rights and spatial design, play has been an underpinning concept for this work. Play is fundamental to children's immediate well-being and long-term development (Gleave and Cole-Hamilton 2012, HSE 2012, Lester and Russell 2008, 2010). The right of children to play is enshrined in the UNCRC with Article 31 stating that:

- 1. States Parties recognise the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.
- 2. States Parties shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal opportunities for cultural, artistic, recreational and leisure activity.

Play is a prism through which children's lives can be given priority and meaning, giving them agency over their own experiences and providing an attachment to place (Hartshorne 2014). Play 'acts across several adaptive systems to contribute to health, well-being and resilience. These include: pleasure and enjoyment; emotion regulation; stress response systems; attachments; and learning and creativity.' (Lester and Russell 2010). It holds an attachment to place. Lester and Russell (2010) argue that the given the benefits associated with play, 'it is clear that play is fundamentally linked to children's rights as a whole...not a luxury to be considered after other rights'. For adults to be successful advocates and meet children and young people's rights, they need to 'ensure that children's physical and

social environments support their play (and) need to pay attention to creating the conditions in which play can take place'.

At the UK level there is room for progress on children's rights and play. The (English) Play Strategy of 2008, intended as a 10 year programme, was dropped by the incoming Coalition Government in 2010. In 2016 the UN Committee on the Rights of the Child published its concluding observations on the UK's fifth periodic report on the UNCRC. The report stated it is 'seriously concerned at the effects that recent fiscal policies and allocation of resources have had in contributing to inequality in children's enjoyment of their rights, disproportionately affecting children in disadvantaged situations.' (paragraph III 12, UN Committee on the Right of the Child, 2016). For a document of this sort, this is very strong language. Whilst the Convention has not been directly incorporated into UK law, 'the conclusions and recommendations of the UN Committee....do provide an authoritative interpretation of the individual treaty obligations which are themselves legally binding on the UK.' (Lang 2016).

In spite of the lack of national action, or perhaps because of it, an activist and grass roots approach to play has started to have an impact on children's right to play at a local level. The play streets concept has a history going back to the 1930s, when concern emerged over the deaths of around 1000 children each year on the roads. Hansard records that in 1935 alone 2000 children were officially found guilty of playing in the street. The resulting Street Playgrounds Act gave local authorities powers to shut roads to allow children to play, and the 1950s saw 700 play streets across England and Wales. By the mid-80s, however, as car ownership rose implacably, play streets declined almost entirely.

'Playing Out' is a volunteer initiative which started in Bristol in 2010, has since spread across the country and grown to over 660 streets in 67 local authority areas. In 2012 Hackney became the first borough in London to introduce play streets and there are now over 40 in the borough. An early evaluation by Hackney Play in 2014, carried out by Tim Gill, found that it had 'enabled over 8,100 child-hours of physical activity, on a par with 14 additional classes of weekly term-time PE lessons' and 'revealed a strong consensus amongst organisers about the perceived benefits of the scheme.... especially in terms of social interaction, but also as a way to expand children's freedom and choice in their play.' (Gill 2015). As such Playing Out is an important initiative. However, the challenge for making Hackney and other places child-friendly is how play streets and spaces can be reclaimed permanently rather than as a temporary respite from the dominance of cars and other adult uses.

The criticism of the UK government on progress with implementing the UNCRC and English government's dropping of The Play Strategy contrasts with approaches in Wales (and Scotland). In Wales in 2012 after many years of development, the Welsh government became the first in the world to legislate on the subject of play. The Play Sufficiency Assessment (Wales) Regulations (2012) require local authorities to assess the sufficiency of opportunities for children in their area and to publish Play Action Plans to secure sufficient opportunities for play (Welsh government, 2012). The duty is accompanied by statutory guidance for local authorities on assessing for and securing sufficient play opportunities for children (Welsh government 2014). As Barclay and Tawil (2013) note (on the 2012 version) the guidance acknowledges that children 'have a fundamental right to be able to play'. The aim of the duty goes beyond the contribution that services and facilities, while important, can make to create 'an environment where children can freely play' and to 'make communities more play friendly'. Wrexham County Borough Council has produced leading examples of play sufficiency assessments published in 2013 and 2016 (Barclay and Tawil 2013, Wrexham County Borough Council 2016).

In our work, we have drawn on the Welsh play sufficiency approach generally and in particular the way it has been implemented in Wrexham in our work. The importance of play to children's well-being and the presence of an external environment that supports and enabled children play aligns with our interest in the spatial dimensions of children lives. Furthermore play is something children instinctively understand. By framing our interactions with children in terms of play they are able articulate their use of space, desires and needs through their descriptions and experience of play.

Children's independent mobility

The freedom children have to get about and play in their local neighbourhood unaccompanied by adults – children's independent mobility – has declined significantly in the last 40 years. In 1971, for example, 86 per cent of the parents of primary school children surveyed in England said that their children were allowed to travel home from school alone. By 1990, this had dropped to 35 per cent, and there was a further drop to 25 per cent of children being allowed to do so in 2010. This is documented in the research of one of the authors of this report and colleagues at Policy Studies Institute which looked at children's independent mobility in England in 1971, England and the then West Germany in 1990 and a wider international comparison of 16 countries in 2010 (Hillman et al. 1973, 1990, Shaw et al 2013, 2015).

The motivation for studying independent mobility is that it is an important factor in the health of children and their physical, social and mental development. It is also something children desire. The previous work by Policy Studies Institute used survey based methods to obtain data on children's mobility patterns activities and independence. However, this only gives limited explanation of why independent mobility has dropped so significantly. Traffic was the main factor cited in the Policy Studies Institute work. The wider literature highlights that levels of independent mobility are the result of a complex interaction of the factors relating to the attributes of children and their parents, the external environment in which they live, and the cultural and social factors affecting attitudes and behaviour. The literature cites traffic as a key factor in reduced independence, and living in urban areas, population density, connectivity and accessibility/proximity of destinations as being enablers of independence (Shaw et al 2015).

One of the motivations for this work was to explore through qualitative methods the factors affecting children's independent mobility. Although often defined separately, it is inextricably linked to the activity of play. Indeed Wheway and Millwards research (1997) suggests play is constantly moving activity, with children going from place to place, using 'safe loops' to access each space within their local neighbourhood. Enabling children's independence mobility also has an important role in enabling play-friendly and consequently child-friendly neighbourhoods. Delivering these requires a sophisticated understanding of the interaction between concepts of play, styles of parenting and adult control of children, children's independence and spatial design as this quote from Lester and Russell (2008) eloquently captures.

'The pleasure and enjoyment that children gain from playing leads them to seek out time and space to play. The prevailing understanding of childhood and play has led to an increase in adult control of children's use of time and space which in turn constrains the ways in which children can exploit the opportunities that local environments offer for playing. Where children can range independently, their environment becomes a field of 'free action' in which they can follow their own desires and create situations of wonder and uncertainty (Kytta 2003). An appreciation of the relationship between the nature of play and an environmental field of free action is crucial in designing play friendly neighbourhoods. This calls for partnership and cross-departmental working at local and national level.'

Planning policy and participation

In the UK very little mention is made of children and young people in planning policy other than aiming for better participation and engagement in new development. Given the proportion of the population they form and that children are literally the basis of our future society the lack of explicit consideration of their needs is a startling omission.

At a national level, the newly revised National Planning Policy Framework (NPPF 2018), refers to children only once in the context of providing sufficient homes for different groups including 'families with children'. The section on 'Promoting healthy and safe communities', an obvious place to highlight the specific needs of children in the planning and development process doesn't differentiate the needs of children from wider community needs. A review of the planning system being conducted by a panel of experts lead by the former planning minister Nick Raynsford. acknowledges the need for 'a significant new approach to helping communities to engage in the planning process' and the need for 'engaging groups who do not currently have a voice, such as children and young people' (TCPA 2018) but offers no detail on how the specific needs of children can be accommodated in planning.

In general, most policy and guidance documents do not give appropriate weight to designing for children, they often over emphasise negative behaviour, such as anti social behaviour and in some instances, such as Building for Life 12 (BFL 12), ('a government-endorsed industry standard for well-designed homes and neighbourhoods'), have a rather negative attitude towards children and play.

BFL12 suggests that play areas in front of homes should be avoided as they could 'become a source of tension due to potential for noise and nuisance.' but that 'Parking that is not well overlooked' should be avoided. This negative view of children and focus on provision for cars pervades much residential development thinking and it is perhaps not surprising then that our research into recently completed schemes reveals the major hindrance to children's play arises from anti socially parked cars (Bornat 2016).

Potentially encouraging is the draft London Plan (Mayor of London 2017) which now includes much of the detail originally laid out in the 2008 Supplementary Guidance on Play and Informal Recreation (Mayor of London 2008) and the revised 2012 Supplementary Planning Guidance (SPG) (Mayor of London 2012). Capacity and distance measurements to play space have been strengthened with more detail about good quality of life and the policy that now includes the concept of children's independent mobility, with safe access from the street for play provision needing to 'form an integral part of the surrounding neighbourhood' (Mayor of London 2017).

Supplementary guidance is available from the London Housing Design Guidance (Mayor of London 2010) which refers to the play and informal recreation SPG.

Despite the mandatory dwelling and room sizes, there is a marked gap in the shared space element, essential in any multi story development, such as private and shared courtyards, entrances, staircases and corridors, all of which perform a vital role in terms of children's every day experience and their ability to access spaces to play outside and with other children. It is hoped that the review currently underway will be able to pick up on these omissions and consider a development as a whole series of spaces, from real doorstep play, through shared external spaces to safe routes to other parts of the neighbourhood and city beyond.

At this point it is worth referring to Toronto's recently published design guidance for high density developments (City of Toronto 2017) which covers these issues and gives attention to both the small scale and the strategic by structuring the guidance from the unit, to the neighbourhood and then the city. The document picks up on doorstep play and independent mobility as well as facilities such as childcare and schools.

Despite or perhaps because of the general lack of policy and guidance, there is a rapidly growing interest in the child-friendly city concept from a planning and built environment perspective and the authors acknowledge a growing body of work, for example in India with the National Institute of Urban Affairs, in Sydney with guidance by Natalia Krysiak and the soon to be published research by Tim Gill into the child-friendly city work in Antwerp, Ghent, Rotterdam, Oslo and Freiburg.

Participation in the planning and development process is often focussed on dealing with abstract ideas rather than the realities and experiences of children's lives. These processes lack a thorough understanding of the complex systems that underpin children and young people's relationship with their local neighbourhoods. Where research has been carried out in this area the focus is often on children and young people as future citizens (Farthing 2014) and providers, or as a member of the family unit. Far less representation is given to their voices and lived experiences (Farthing 2014). This absence of voice leads to a lack of knowledge within professions responsible for managing and delivering development and change. Professionals are neither well equipped to advocate for children's needs nor suitably engaged in how to do so (Clark et al 2015).

Involving children and young people in the physical changes undergoing in their local area is essential, but to what degree are their voices being heard and are we even approaching participation from the right perspective? Asking residents 'what do you want?' can be problematic and not address some of the underlying issues or fully represent everyone in the community. Finally, are developments meeting the needs of children and young people once they are completed, which in the instances of some regeneration projects may stretch over 20 years; post occupancy evaluation is critical.

The current policy system fails to present children as legitimate citizens, with their own agency and capable of articulating their own experiences. Children, young people and their lived experiences are poorly represented and therefore largely unable to influence built environment policy. Unless challenged this situation will endure, regulating children to bit-players at best, or harnessing them to promote competing political agendas.

and provision

Children and young people's local neighbourhoods matter to them and affect their sense of self, mental health, development and growth (Harker 2006). This ranges from the quality of their homes and spaces around them to the impact and perception of crime (Billingham 2018). From a public health and well-being point of view, it is widely understood that a relationship exists between obesity and the built environment. However, identifying and isolating specific features of the built environment that have most impact on children's activity levels remains challenging (Sallis and Glanz, 2006). Despite wide policy claims suggesting that children living near to green spaces have lower levels of obesity, the evidence is only indicative of a relationship and further studies are required to clarify the associations and causal pathways (Natural England, 2009). Systematic reviews have revealed little strong empirical evidence beyond general associations between childhood activity levels and factors like land use patterns, population density, socioeconomic status and 'walkability' (comprising factors such as dwelling density, land use mix, intersection density and availability of facilities) (Dunton et al., 2009; Galvez et al., 2011). It has been argued, therefore, that a better understanding of the 'built environment' in relation to childhood physical activity is needed, and that more emphasis should be placed on the evaluation of the specific design features that compose interventions into the built environment (Galvez et al., 2011).

Whilst numerous studies assess children's activity levels in relation to the built environment, this is often in terms of land use – i.e. rural vs. urban vs. suburban – rather than through an analysis of the built environment's physical characteristics (e.g. see Sandercock et al., 2010 for many examples).

The case for advocating for freely chosen play and the benefits it brings has been made repeatedly (eg Gill 2007, Clark H et al 2015, Voce 2015, Wright et al 2017). Indeed the Health and Safety Executive (HSE) has gone so far to explain that it 'understands and accepts that this means children will often be exposed to play environments which, whilst well-managed, carry a degree of risk and sometimes potential danger...No child will learn about risk if they are wrapped up in cotton wool.'

Independent, unsupervised play has also been seen to have beneficial outcomes for other age groups, for example Bornat's research (2016) showed that developments with greater numbers of children playing independently tend to be well used by other age groups as well. Appropriately designed space can enable children to be the animators of social space and communities in housing developments and hence their overall success as places to live.

From an adult resident perceptive it has been seen to be valuable too; the UKGBC report into Healthy Homes tested commonly held attributes against well-being attributes, using a mosaic survey of 3,000. It found that people valued a home where children can play out safely above one which would increase in value, or one with a south facing garden and significantly more than one that is close to outside space to exercise or has nearby exercise or leisure facilities (UKGBC 2016).

If play is a good representation of children and young people's well-being it can therefore become a useful measurement of social value, itself an expression of social well-being. ZCD Architects in London and Mike Barclay and Ben Tawil in Wrexham have approached this issue from two different perspectives; the former through observational work and mapping to reveal the use and spatial relationships of housing estates and the latter through surveys and focus group work. In their recent combined work which looks at four neighbourhoods in the County of Wrexham, they discovered a correlation between ZCD's mapping and their own Play Sufficiency Assessments which both revealed the preferred locations for play (ZCD Architects 2018).

Key findings from Wrexham (Barclay and Tawil 2013) have led to twelve recommendations which include securing a wider range of spaces for play, increasing parental permission and improving the 'generalised negative attitudes towards teenagers and their play'. All twelve recommendations are supported by three pillars - temporal, spatial and psychological - which need to be present for play to happen, that is children need to have time, space and permission if play is to happen.

This approach to enabling play opportunity shows a stark difference to the play strategies currently employed by local authorities, which generally focus on playgrounds as the spaces that children use for play, misunderstanding that play is in fact an activity that occurs throughout the day and in spaces immediately available. Improving play sufficiency cannot be achieved simply by auditing formally allocated play spaces (which may not be easily accessible for impromptu play) and improving the quality of the space and equipment.

The work we have built on in this study is linked by a strong emphasis on peoplefocused urban design building on the traditions of Jan Gehl. Within this we are interested in urban design which focus on the needs of children and their ability to play and move about in the local area, whether accompanied by adults or independently. We have emphasised the importance of a rights-based approach to our work and the central role of play in children's lives. These themes are reflected in the methods we have used described in the next section.

In this background section we have highlighted a breadth of work relevant to the delivery of child-friendly cities - urban design principles and theories, a rightsbased approach, the nature of children's play and importance of play to children's lives, spatial and planning dimensions, and children's independent mobility. The challenge of children and cities can be seen through any of these lenses. Each of these is important but it necessary to acknowledge both the value of each single perspective and interdependencies between them if better lives for children are to be enabled. In doing so new approaches to measuring play, well-being and social value and new opportunities for planning and provision can be created.

Methods

We have used a diverse range of methods in the project. They were chosen to explore the children's lived experience in Hackney but to relate this to specific spatial attributes of the neighbourhood and activities the children engage in. The data collected has allowed us to test and develop our mapping system and urban analysis and review the effectiveness of the participatory and skill-building exercises we used as methods for engaging children in discussions about these topics.

We also felt it was important to provide tangible creative outputs from the project for the children, parents, school and wider stakeholders. We invited the photographer Madeleine Waller to work alongside us to help the children create a unique photographic study of the De Beauvoir Estate. This was a means of expressing the children's own identities in relation to their feelings about the estate and the local neighbourhood but was also an important mechanism for engaging children in the project.

What did we want to find out?

The project had four research questions which have guided our work

- What can we learn from children about how they perceive a local neighbourhood in the context of their lives? Understanding children
- What can we learn about a particular place from watching children and adults use external spaces? Understanding spaces
- What can we learn from the methods used about how best to engage children in discussions about their local neighbourhood? New ways of engaging children
- How can we combine these findings to represent a particular place from a childcentered perspective? New ways of mapping

Building on previous research

The aim of this project has been to move from the aspiration of the child-friendly city concept to practical action that can be put it into practice. The methods we have used build on two threads of previous research by the report's authors:

Firstly, research into the spatial design of housing developments and the impact this has on the use (or lack of use) of external space by communities and especially children. This work highlights the importance of spatial design that meets the needs of children and also that children can be the animators of community life in housing developments (Bornat, 2016).

This previous research was based on spatial analysis and observational methods into the use of space by adults and children. It revealed important findings on behaviours such as social activities, play and independent use of space by children. However, it was not able to provide insight into the residents' attitudes and perceptions behind their use of space and places. As most of the neighbourhoods studied were low and medium density suburban, this project aims to take the next step and look in detail at a higher density neighbourhood, specifically containing the more complex configurartions associated with inner city developments; towers and slab blocks with circulation cores, balconies, deck access and security.

Secondly, it builds on the concept of children's independent mobility and surveys that reveal a decline over time in the ability of children to play in and travel around their local neighbourhood unaccompanied by adults (Shaw et al. 2013, 2015). This decline in children's freedom matters as being independently mobile is important for the health of children and their physical, mental and social development.



A rights-based approach focused on play

This project examines the spatial arrangements of a specific inner city neighbourhood, De Beauvoir in Hackney and the experience and perceptions of children living in and around this area. A guiding principle for the project has been the United Nations Convention on the Rights of the Child and especially Article 12, which says that every child has the right to express their views, feelings and wishes in all matters affecting them, and to have their views considered and taken seriously.

The central importance of play to children (the right to which is included in Article 31 of the UN Convention) is also reflected in our methods. Not only is play important for children, and to the children themselves, but it is something they are instinctively able to talk about. We have adapted the approach of Mike Barclay and Ben Tawil used in their Wrexham Play Sufficiency Assessment in this project and are grateful for their support of our work.

The Wrexham work was developed as a response to the requirement introduced by the Welsh government for local authorities to assess and secure sufficient opportunities for children to play. It introduces the concept of 'play sufficiency'. This can be seen as the point at which the focus of children's attention moves from a general sense of dissatisfaction, in which many subjective and objective issues need to be addressed to improve opportunities to play, to a position of general satisfaction, in which they would only highlight minor qualitative adjustments to improve their own or others' opportunities for play (Barclay and Tawil, 2013). In this way play sufficiency represents more than provision of opportunities for play in the form of playgrounds and open space. It instead adopts a wider interpretation that incorporates play-friendly communities and environments that give children time, space and permission to play.

A diversity of methods

With this in mind we have complemented the surveys, observation and analysis of our previous work with a range of qualitative data collection approaches that allow children to express their views on their local area and the opportunities for play within it. This included whole class discussions, small focus groups, creative writing, map making, and walking tours around the De Beauvoir Estate. We have sought to combine subjective and objective measures in the work as well as creativity.





Class discussion

Filling in use of time questionnaire

Photography has played in an important role in the project; as a tool for engaging the children but also as a means of recording places of interest to them and giving them a means to express their views on the local area through creative and non-verbal forms.

Engaging children

As well as generating substantive insights into the children's lives, their use of space and developing ways of communicating this we also wanted to experiment with different ways of engaging children on these issues. We wanted to understand what is feasible and what works best in gaining the views of children on their local area. We are also interested in how the approaches we have used might be adapted in future work in Hackney and beyond.

Recruiting children and structure of work

We identified the primary school with the highest intake of children from the De Beauvoir Estate – on the assumption that many would live locally – and proposed an eight-week project of class-based and outdoor activities to generate and collect data with photography sessions in parallel. The school was receptive and the sessions ran between January and April 2018. Thirty-five Year 5 children aged 9-10 participated in the project. We received written parental consent for all the activities undertaken, and ethical approval was obtained from the University of Westminster.

Children spent almost half of the eight-week period working on a photography project. Photographs and photomontages combining portraits of the children and the De Beauvoir Estate were created. These were put on show at an exhibition at the school in front of parents, teachers, councillors, borough officials and the Mayor and Deputy Mayor of Hackney.

We give details of the methods we used on the following pages. They are presented in the chronological order we ran them, although it should be noted that the photography activities were interleaved between the methods in other sessions. We have given details of the methods and exercises we ran but in each session we would also have a short introductory and wrap up discussion with the class. These, for example, might explore what 'play' means to children, how easily they felt they could get about their neighbourhood, remind children about the purpose of the work or focusing them on what they would like to say to the Mayor about their local area.

Observational analysis

How people use external spaces provides a rich understanding of how cities work as places for movement and social interaction. Extended observation has been used from William H Whyte and Jane Jacobs (1961) through to Jan Gehl.

The research for Housing Design for Community Life (Bornat 2016) developed Gehl's methodology and this was used again in our work on the De Beauvoir Estate. We looked further into how children were using the spaces, independently or supervised by adults, focusing also on the length of time they spent there. The five spaces that were studied across the estate were observed by five separate researchers, each standing for between three and seven hours over seven separate days in late August/early September 2017, choosing days when the weather was fine. The research was carried out over weekends, after school in the evening or during the day in the school summer holiday period. Each of the five spaces yielded 22 hours of data.

The observational period; late August and early September, was chosen as it is thought to provide high levels of use compared to other less favourable times of year. This is useful to contrast the different levels of use between each space but will not reflect an average amount of time spent playing or socialising in these spaces throughout the year. We note that children are able to play out on cold days and even in wet weather, however we were not able to analyse whether this occurs or not on the estate and to what extent the spaces are able to support play on those days.



Exercise 1: Survey on mobility, independence and play

In our first session we asked the children to complete a survey in class. The survey was an amended and updated version of the one used in the Children's Independent Mobility study (Shaw et al., 2015) and asked questions on: children's journeys to and from school; the extent to which they walk, cycle and use public transport; whether they were accompanied by an adult; their weekend activities; their play; their perceptions of their local area.

It is important to stress, that the sample of 35 children was too small to be representative of Hackney children more broadly. Nevertheless, the survey allows us to characterise the children at De Beauvoir Primary School in Year 5 and compare their responses with the results of previous surveys run in England and abroad. Running the surveys also allowed us to test the feasibility of running such surveys in class for practicality and comprehension with lessons from this being fed into any future use of the surveys.

Exercise 2: Use of time questionnaire

As well as space, children need time and permission to be able to play. Drawn from the Wrexham Play Sufficiency Assessments (in turn Kyttä, 2003), this exercise was used to elicit the children's perceptions of the degree of freedom they have throughout a standard term time week and what they do with their time. Beginning with a template showing days of the week, children were asked to list their typical activities on each day and then colour code these according to how much agency they felt when carrying out each one. Red meant children felt constrained, i.e. 'time, space, access or attitudes that prevent children's self-directed action'); amber referred to a promoted action (i.e. structured or organised activities that 'promote particular forms of behaviour'), and green indicated total agency (i.e. 'children's free action') (Barclay and Tawil, 2013, p.11).

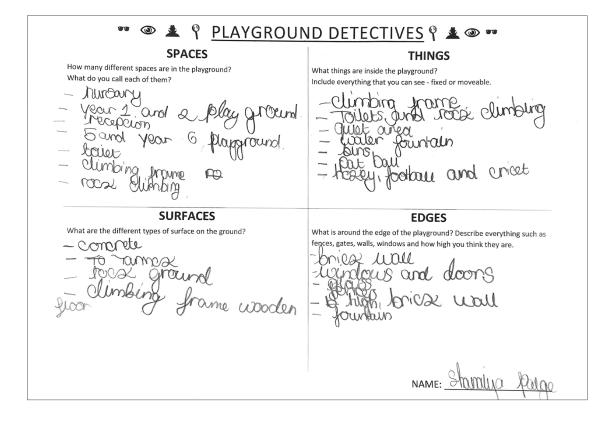
	My Tim	ne – Term	Time		Constrained (restricted)	Promoted (encouraged/ suggested)	Free (do wha you like
	Monday 🥜	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Wake up	L water op dress up - eat breaks broke-land ossentite go to dasentite go to pay any mo go to bed						North A

Exercise 3: Skill-building - 'Playground Detectives'

One of the aims of the project was to get children to express their views on the external spaces they play and move about in. As a skill building exercise to enhance the ability of children to look critically at external spaces, the children were asked to assess their school playground in terms of four criteria:

- Spaces How many different spaces are in the playground? What do you call each of them?
- Surfaces What are the different types of surface on the ground?
- Things What things are inside the playground? Include everything that you can see fixed or moveable
- Edges What is around the edge of the playground? Describe everything such as fences, gates, walls, windows and how high you think they are.

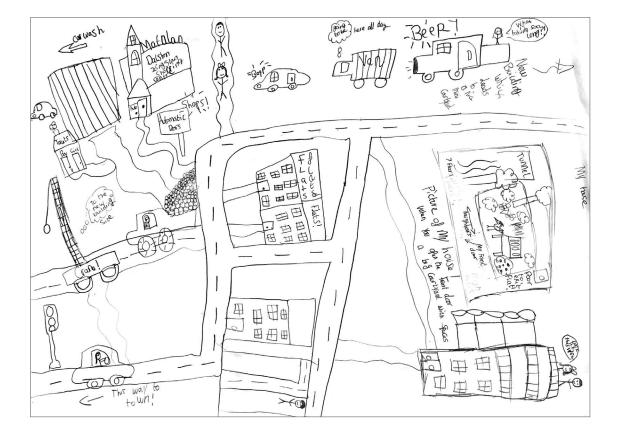
Following the exercise the children's responses were discussed in a group in the playground to point to the range of spaces, surfaces, things and edges to be seen when looking more closely. On return to class, as a group exercise to develop their mapping skills, a map of the playground was drawn on the whiteboard with the input of the children including all the elements observed in the playground detectives exercise.



Exercise 4: Neighbourhood mapping and small group discussions

Children were asked to draw a map of their local area with their home placed centrally. They were then asked to add places that were important to them and were given prompts about things they might like to include relating to their friends' homes, play locations, parks, routes they used to get about, landmarks and other points of interest. The children were encouraged to annotate the map with comments about places. The aim of this exercise was to identify the locations that form an important part of the children's lives: what and where they are, and how easy they are for children to access.

The maps were then used to allow a detailed exploration of the children's experience of living in Hackney. Small group discussions were run with all the children. The groups varied in size from four to seven children and the sessions lasted 25 minutes. Each session began with an invitation to each child to talk briefly about the map they had produced to the rest of the group. They were asked to talk about what they had included in the map and why, and whether there was anything important missing from the map they would like to add. Following this introduction a conversation was had about the range of places the children go to, how they get to them, whether they feel safe getting about, the attitudes of other people they encounter in different places, their overall satisfaction with the area and ideas for things which would make it better.



Exercise 5: Creative writing

The children were asked to write 'My best memory was when...' at the top of a blank sheet of paper and to continue writing to tell the story of their best play memory, with the caveat that it had to be both outside and in their local area. They were asked to described the experience in as much detail as possible and provided with numerous prompts such as, 'who was there?', 'what did you do?' and 'why was it special?'. After completing the exercise, they used the traffic light system described above to denote how free they felt at the time. As it had snowed heavily that day, a rare event in London and for some of the children the first time they had seen this much snow, it was not surprising that a large number of children chose 'the day it snowed' as their best ever outdoor play experience.

Exercise 6: Photo analysis

This was a short exercise in groups of four or five. The children were shown 20 of their photos they had taken on the De Beauvoir Estate with Madeleine Waller. They were asked to discuss what they could see in the photographs, what spaces, surfaces and things were there and which things would support their play. They ranked the photographs as Green, Amber or Red to indicate whether they thought they could play freely, would need adult supervision, or could not play there at all.

Exercise 7: Walking tour rating spaces to play

Each class was taken on a tour on foot of the five spaces and four links between spaces on the De Beauvoir Estate. The aim was to get the children to analyse the quality of the different spaces and their suitability for play, based on some of the skills they have developed in previous sessions. Going around the estate they were asked to complete a short questionnaire about the nine places in pairs. The children were asked: Is there space to play?; Are there things to help you play?; Are there cars?; Are there things to stop you playing, and; Rate each space as Free to play, Better with grown-ups, or No good for play. As a final exercise the children were asked to nominate their most and least favourite of the five spaces and indicate which space they thought would be most and least used by children for play.

A further walking tour was run with the children who lived on the De Beauvoir Estate to allow a more detailed exploration of children views of different places and spaces on the estate. This was based on the emerging finding that children living in a space have different and more accurate perceptions of the spaces and places.

On this trip, we allowed the children to lead us around the estate, starting with the space closest to home, they lived nearby each other, and describing what they did, where they played and how they got about.

Photography

We decided to involve the professional photographer Madeleine Waller in the project. This was on the basis of an awareness of her successful previous projects running creative workshops with children. The aim of the series of photographic sessions was to encourage children to explore the communal spaces around where they live, how they use these spaces, their problems and strengths and what is important to them and their families and record this with photographs and photo montage. Four sessions were run. In the first the children were introduced to the concepts of photography, discussing what makes for a successful photograph and how images can be used to tell stories. In the second the children were given digital cameras and taken for a walk through the local areas, including the De Beauvoir Estate, taking photographs of the places that interested them. In the remaining sessions photos were reviewed, portraits of the children were taken and photo montages created and annotated with descriptive words allowing the children to express their views on local areas.

The resulting images were professionally printed and mounted and displayed at an exhibition held at the school in May. This was attended by parents, teachers, councillors, borough officials and the Mayor and Deputy Mayor of Hackney.

The above describes the approaches we used to working with the children to generate engagement and insights. In the following sections we report the findings from the process under the headline themes of our research questions:

Chapter 3: Understanding children

Chapter 4: Understanding spaces

Chapter 5: New ways of mapping

Chapter 6: New ways of engaging children





Using the photographs to talk about their neighbourhood

Taking photographs

Understanding children

The Year 5 children we worked with experience a life that would be familiar to many children growing up across London or other big cities. Many, but not all of the children play outside, are allowed to cross roads without an adult and also go and visit friends. Most children feel very safe when they are out with an adult, but less so when on their own or with friends. The children have a lot of good things to say about their local area. However, some of findings do raise serious issues that need to be addressed, both for children and the wider communities they live in.

In this chapter we bring together findings on our first research question: What can we learn from children about how they perceive a local neighbourhood in the context of their lives? – Understanding children. We report on what the research tells about the children's lives.

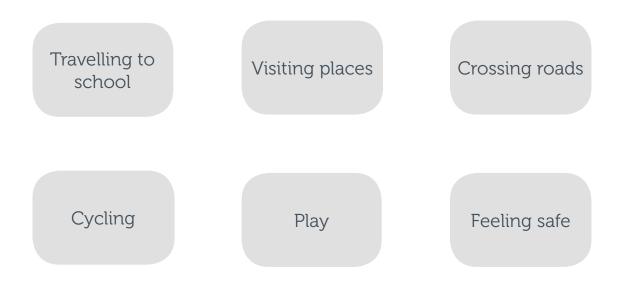
Firstly, we present the results from the surveys. These don't give us statistically significant findings that can be transferred to the rest of Hackney, but they do give useful information that allows us to characterise the children's lives and set a baseline for future work. By comparison with previous surveys we can get a sense whether the behaviours of the Year 5 children we studied are typical.

We also incorporate some of the findings from the children's use of time survey. The quality of this data was not high and conducting a detailed analysis of the children's use of time would not be appropriate. However, broad observations can be made about the range of activities the children participate in and whether they feel constrained, promoted or free in their use of time. The use of time survey aligns with the findings of the mobility survey which is encouraging. The use of time survey also gives insights into activities at home which the other approaches don't do very well or at all. It is interesting to see how the different children view the same activities in different ways, some positively and others negatively.

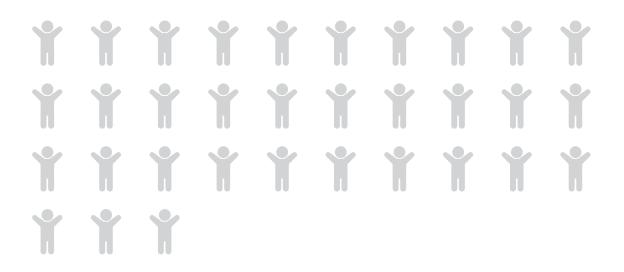
Secondly, we present the findings from the discussions and activities held with the whole class and in small groups with the children in Year 5 about the places and spaces in their local neighbourhood. We carried out a series of exercises using map making and creative writing which allowed us to learn about some of the broader issues and to being to understand the complexity of their lives in more detail. Because the children lived across Hackney rather than in a single area we were unable to probe the similarities and differences of experience of living in a particular area to the degree we would have liked.

Findings from Surveys

We have gathered the results into six main themes which we present over the following pages:



Each answer is represented by a figure, representing each of the 33 children who took part:



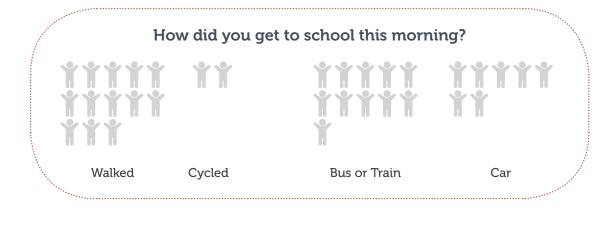
Travelling to School

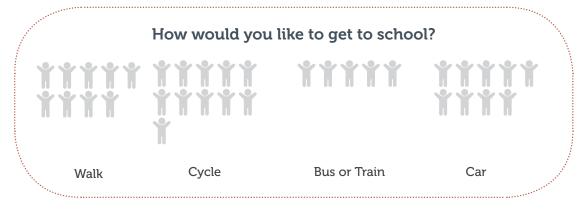
The figures for walking and cycling to school are almost identical to those for primary school aged children across London. However, more De Beauvoir children came to school by bus than the London average and fewer by car.



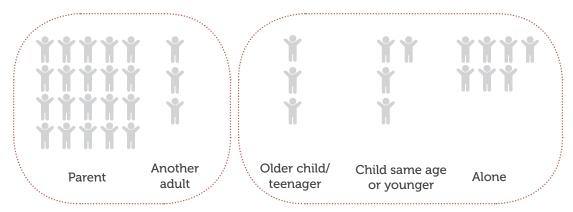
Most children More children walk to school. would like to Most go with a parent

cycle than currently do





Who did you travel to school with this morning?



Visiting Places

We were interested in the places children visited on the previous weekend and they report going to a diverse range of places in the surveys. On average each child made two unaccompanied and two accompanied journeys at the weekend, which is a similar level to previous PSI research.

With an adult

Visited relatives or grown-ups	13
Visited a friend's home	11
Went to the shops	11
Visited a place of worship	11
Went to a library	10
Went to a cinema or theatre	7
Went to a youth club (including Scouts, Guides, Cadets, Sunday school etc.)	5
Went for a walk or cycled around	5
Went to a museum or exhibition	5
Went to a playground, park or playing fields	4
Played sport or went swimming (individual or team sports or lessons)	4
Spent time with friends outside after dark	2

Alone or with a friend

Went to the shops	12
Went to a playground, park or playing fields	10
Went for a walk or cycled around	9
Played sport or went swimming (individual or team sports or lessons)	8
Visited a friend's home	7
Spent time with friends outside after dark	6
Visited a place of worship	6
Visited relatives or grown-ups	5
Went to a youth club (including Scouts, Guides, Cadets, Sunday school etc.)	5
Went to a cinema or theatre	3
Went to a museum or exhibition	1
Went to a library	0

Crossing Roads

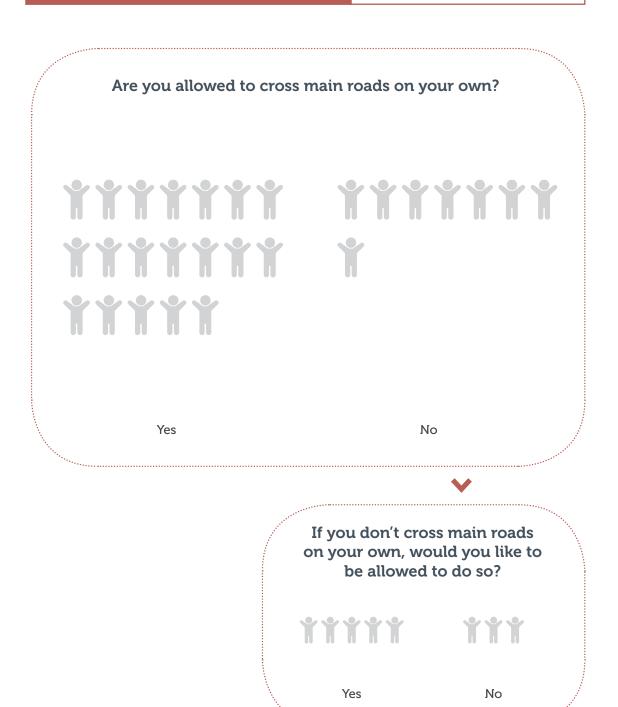
Research by PSI showed 60 per cent of 9-10 year olds of children surveyed across England in 2010 were allowed to cross main roads by themselves. We found a higher percentage of the Year 5 children than this were allowed to.

Some of the children are not allowed to cross a main road

Nearly all children

would like to

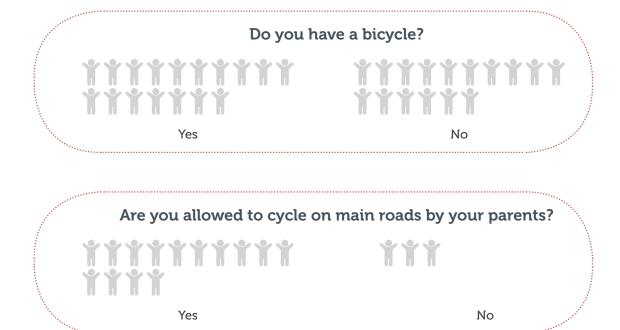
be able to



Cycling

Only 4 percent of children are allowed to cycle to school according to a Sustrans survey. While only a small proportion of the Year 5 children cycle to school it was the most popular way children would like to be able to get to school.





How many times do you cycle in a typical week (both with and without parents) including the weekend?



YYYY

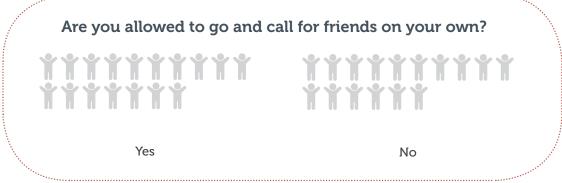
Yes

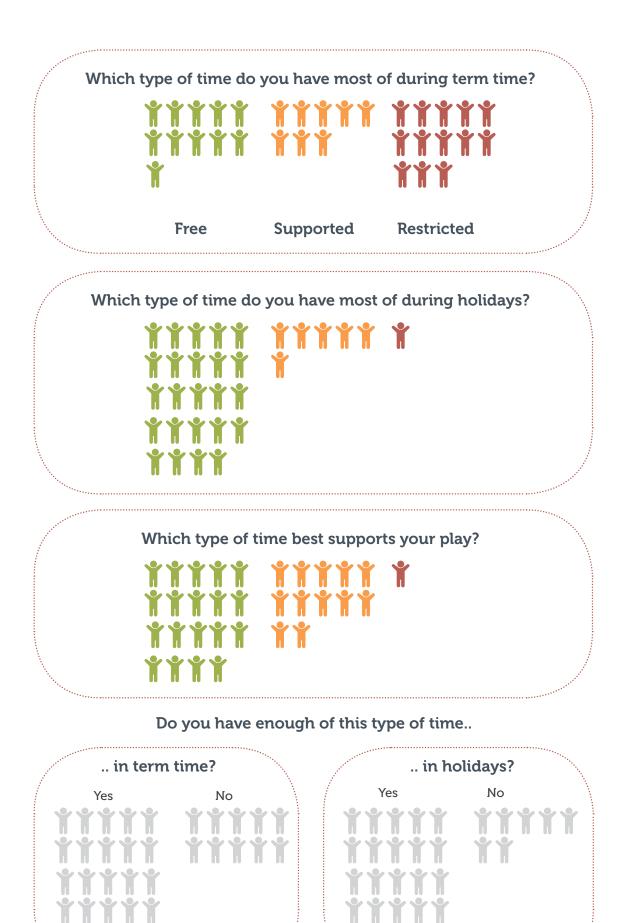
Hardly ever

No

If you have a bicycle, are you allowed to ride it to go to places (like the park or friends' houses) without any grown ups?







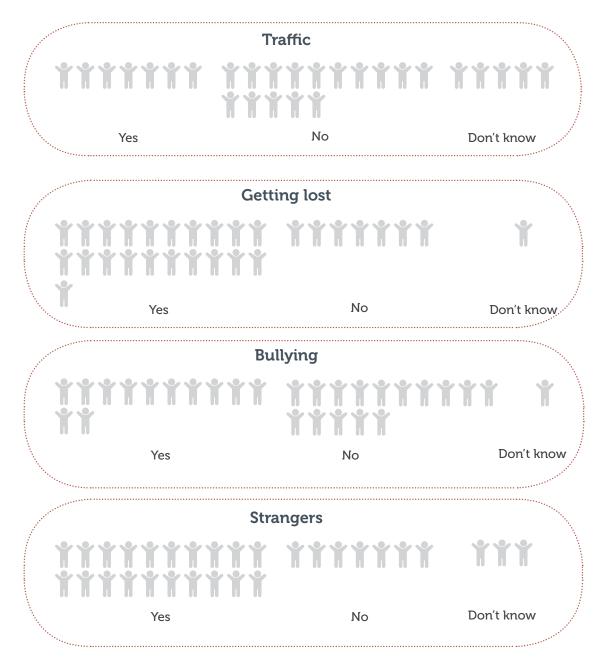






Perhaps surprisingly, given the high traffic volumes and busy roads in Hackney, children record low levels of concern about traffic. However, very high proportions of children are concerned about 'getting lost' and 'strangers'. It would have been interesting to probe further whether these are real concerns or ones learnt from parents voicing their concerns to their children. In the conversations there was some concern raised by children about strangers but getting lost wasn't raised. Although it is a smaller proportion the number of children indicating a worry about bullying when out on their own or friends is of concern

When you are outside on your own or with friends are you worried about....



Findings from discussions

The range of sessions gave a lot of opportunities for children to talk about their neighbourhood, the spaces immediately outside their homes and further away, and what they did and couldn't do there.

We conducted:

- Whole class conversations
- Small group discussions
- Neighbourhood mapping
- Creative writing

Audio recordings and notes for the session were taken along with the maps and writing the children produced. We've analysed these and summarise them by the key themes emerging from the various discussions.

When we introduced the topic of play to the whole class, we talked about their school playground. We asked them whether they would rather adults (teachers and assistants) were present at play time or not. They were unanimous in their response; they would rather no adults were present. This throws up a whole number of issues, such as the quality of their play at playtime; is it too structured/restricted, but also their desire for more freedom.

What's it like being a child in Hackney?

Much of what the children say about where they go and the activities they engage in are typical of what one would expect of 9 and 10-year-olds. They go out to parks, they play near their homes, they visit and play with friends and family, they go to shops. They like playing football, a variety of tag-like games, knock-down ginger, riding their bikes, roller-skating and being out and about with their friends.

While they talk about getting out to play, some children are not able to get out to play as much as they like partly because they are not allowed out on their own. Motivation to get out can be low for some children, although they like it once they are out. Play Stations are an important feature of home activity. Food is also very important and visits to sweet shops and especially chicken shops, feature prominently on the maps, in discussions in the focus groups and throughout our time at De Beauvoir School.

In talking about their maps a large proportion of children highlight small areas near their home that go to play in and these seem to be the places they are using for regular, daily play. However, when asked about the opportunities for play in the area it's the bigger parks and their features, which may require longer journeys to access them and may be visited less frequently, that are highlighted by the children, for example, Clissold Park, Shoreditch Park, Victoria Park and Finsbury Park.

Children's journeys and trips are largely made on foot or on the bus, although some children report getting most places by car. The bus stop is a landmark many of the children know and include in their maps and comments about the local area.

When we talked to them as a whole class they liked the idea of going to school by themselves as it gave them more independence. They also said it was more dangerous these days as there were more dangerous people in the world. They said that parents were worried that someone would kidnap us. Twelve of the children in one class said they would like to get about more by themselves. They said they would need to be more responsible and become more comfortable with doing it.

Nearly all children are able to go out to play or get about unaccompanied by adults. This independence varies from none, or a little, to an apparently quite extensive ability to roam freely:

I got an Ofo bike and head as far as Hackney Wick. (Boy)

However, as would be expected for children of this age the independence of children is clearly conditional and not granted at all times or to all places. This conditional independence is supported by the survey results.

How happy are children with their opportunities to play in their local area?

When asked to about how they rate the opportunities for play in the local area on a scale of 'fantastic, good, ok or rubbish' a majority of the children are positive with 'fantastic' being the most common response. Reasons given for fantastic include the proximity of places to play, the range of things to do, the scale of parks and places to play, other children to play with and friendly people.

Because at the park there are lot of good things to ride, roundabouts, slides, zipwire and sometimes they do barbeques, yeah! ... and it tastes good! (Boy)

Because even though I'm a bit a lazy and stay at home sometimes, it's a really, really big place, like bigger than this school ... and also a lot of people are friendly there and I know everyone. (Boy)

However, the 'fantastic' response is often qualified in subsequent comments:

Yeah absolutely fantastic... not just playgrounds, but my area! Even though sometimes it's a bit grim ... by grim I mean like kind of lonely, very quiet and sometimes scary. (Girl)

The reason I say between [fantastic and rubbish], because up there, up those areas, I don't go by myself, I want, like an adult to be there, because there are a lot of dangerous people around... like roadmen...I don't play in the park anymore because they are always there...men doing bad stuff. (Boy)

In the creative writing sessions most children described informal play experiences when they wrote about their best play memory, with only a very small minority of children talking about supported play opportunities, such as a visit to an adventure playground or cubs and brownies. In addition to trips to local parks, many children wrote about various play activities in the area immediately around their home, with games including football, hide and seek and truth or dare. Around one third of them described playing in the snow as their best ever play memory. We had expected a large number to say their best memory of playing in Hackney took place in warm summer weather, yet 50 percent reported that it actually took place in the snow. However, it had snowed that morning and children live in the moment which will have distorted the findings from this exercise.

Of the 32 children, 29 rated their best play memory as 'green', meaning they felt free to choose how to spend their time. Two were ranked between amber and green and only one was amber; *because my baby brother was with me and he would*

follow me so I couldn't do climbing.

Approximately one third of the children said explicitly that their best play memory took place in a park or open space, and several further responses imply this may have been the case.

The lack of people or friendly people and poor quality maintenance and lack of cleaning can create an environment threatening to the children and is something the children are very aware of and regularly raise noting very specific or small details of the local environment.

While the majority of the children are happy with opportunities for play some respond saying they are 'rubbish' with reasons including not having places to play nearby, places being dirty, or facilities being inappropriate for their needs. 'Baby parks' were cited by a few children which were the closest place to play as not being a place where they wanted to go.

As you get older it just gets boring and it's just slides and swings... make something better, like rock climbing... (Girl)

What stops children going out and getting around by themselves?

Dogs were raised as a problem by at least two groups, both dog fouling and being chased or barked at by dogs:

A dog chased me and it ate my ice cream (Boy)

Interviewer: What stops you playing?

Strangers and dogs...some are dangerous and some of them chase kids. (Girl)

Interviewer: Are there adults around who help you play, make you feel safe?

Nope, nope, nope (Boy)

Other problems raised by multiple group relate to concerns about adults with apparent mental health problems and this was an issue that animated the discussion:

Where I walk and when my Mum takes me to school today, they are some, like, crazy men always talking all the time and my Mum says when you start going to school by yourself be careful. (Girl)

[on my way to school] *there's this weird man that says 'Urgh! how are you doing* [laughter from group] *and he just walks up and down just doing like that going 'Urgh! Urgh!'.* (Girl)

...some people in Dalston they shout a lot, and they fight with innocent people... (Boy)

As previously noted 'roadmen' featured prominently in the discussion with one group, making some areas no-go zones for some children.

What is the attitude of other people to children when they are out and about?

Mixed views are given on the attitudes of adults which can hinder or help children playing in the local area. A lack of tolerance of children playing was raised in multiple groups:

Sometimes like people complain about what you're doing and judging what you are doing (Girl)

Interviewer: How do they do that?

For example, the women upstairs, she complains about what we do, sometime we are chatting, it's like a local area where we can just chat in the courtyard, isn't it, but sometimes we just talk and afterwards we get into trouble for it, even though we don't play any ball games, but it only says don't play ball games there, it doesn't say don't chat or something like that, and like I said before there aren't like that much resources to play with so sometimes you get a bit bored (Girl)

One group highlighted the impact of adults not just on the ability to use space outside but adults disturbing their lives at home in particular during the night:

At night people shouting, drunk people shouting, and sometimes you can smell beer in morning (Girl)

In the night they just, they just invite all their friends and then they start to put on music and don't turn it off until 3 in the morning (Girl)

In the group that raised this issue a majority of the children reported recently being woken at night by youth and adult activities.

But these negative experiences are balanced by more positive ones:

A good thing about where I live is that sometimes there is a man ... who lives in one of the floors and sometime he lets us have a mini party downstairs in the courtyard where like there's face painting and then there's competitions like dance hall competition and all that stuff and sometimes he makes trips to go to different places for example like the Olympic stadium. (Girl)

And other adults are highlighted as being, kind, or helpful for, example:

Yes, there's this one person, he's the bin man, he always sticks up for me...I mean the bin lady (Girl)

Friends, family, neighbours or shopkeepers are also highlighted as providing support to children. Shops and in particular chicken shops appear to play a role in providing an environment that some children find provides access to a supportive adult. Although some of the children report being banned by particular shopkeepers, so the relationships may be mixed.

The role of other children was also highlighted with one comment on teenagers capturing a broader view expressed by the children:

They don't help, they ruin everything. (Girl)

But even within the Year 5 age group tensions are highlighted, both between

different groups of friends and especially between boys and girls:

When boys are playing football there's no stopping them, they will get into a fight! proper one – yeah you didn't say that but they will get into a fight to like own that football pitch so we just have to like leave them. (Girl)

Interviewer with same girl: Do boys dominate the space?

Yes

Interviewer: What do you do when the boys play in the space

We tell them to play outside and we lock the cages... cause some of us wear bobble pins and we know how to do that.

What would make the local area better for you getting out?

Responses to what would make the area better for children focused on dealing with the people seen to create problem, people with mental health problems, 'the roadmen', people drinking and being drunk in public spaces:

Arrest them bad people

If you shank the roadmen

If we arrest the roadmen... roadman watch, just put them in handcuff and lead them off (All Boys)

The facilities, maintenance, and cleaning of local areas was also highlighted:

Then this park all you have ... a bin there and a bench and this tree I love to climb but it's too dirty (Boy)

You should fix the park to make it bigger, cause it's very small... and also like add a few more play areas and also make it more child adaptable

They should make the park bigger, and fix the houses, and then ban the bad people, then arrest them. (Boy)

Reflections

The children interviewed lead lives in many ways typical of 9-10 year olds. However, they are clearly very aware of the realities of inner city life and the behaviours of older children and adults related to alcohol, drugs, knives, anti-social behaviour, and people with mental health issues. These all impact on and affect what they do, can do, or feel safe doing in their local area.

These themes are also reflected in the behaviour, attitudes and language of some of the children who are leading more adult lives then might be expected of 9 and 10-year olds. The mention of and familiarity with the ideas around knives or 'shanks', while probably raised with little direct experience, is of concern. Knives appear to be a normal part of the life and language children are aware of as young as 9-10-years old. It also poses the questions for some of the children about whether there is the community and social support for them to avoid becoming the problem future 9 and 10-year olds will experience.

The focus groups indicated that the 9-10 year olds we spoke to are often at the bottom of a hierarchy when it comes to a claim on the use of public space. People with poor mental health, 'roadmen' engaged in drug-related activity, street-drinkers, older youth and teenagers, and intolerant residents all prevent younger children using the local spaces in the ways they would otherwise like to. Even within the 9-10-year-old age group there are hierarchies and issues. For example, the activities of boys can dominate spaces preventing girls being in places and doing the things they want to. Reversing this hierarchy is an important challenge to be addressed.

'For example, the woman upstairs, she complains about what we do. Sometimes we are chatting. It's like a local area where we can just chat in the courtyard, isn't it. But sometimes we just talk and afterwards we get into trouble for it, even though we don't play any ball games. But it only says don't play ball games there, it doesn't say don't chat or something like that. And like I said before there aren't like that much resources to play with so sometimes you get a bit bored' Girl, Year 5

Children need space, time and permission in order to be able to play, as is clear from the work done in Wrexham on play sufficiency (see Barclay and Tawil, 2013 and Wrexham County Borough Council, 2016). The quote above shows the effect that removing some or all of these factors can have – children get bored. There is also a sense of injustice implicit in the quote, the children are respecting adult rules – don't play ball games – and engaging in an activity that isn't unreasonable – talking with friends - but getting into trouble for breaching unwritten rules. These frustrations are unlikely to make children feel valued part of their communities.

It is also interesting to note the things children didn't talk about in these discussions. Very little was said about the impact of traffic on their lives and how it may affect them. Also very little was said about cultural or organised activities in the local area beyond the role community-based gatherings in the park, which children seemed to value and enjoy. In the discussions no mentions were made of visits to cinema, museums, galleries and only a few to organised activities like Sunday League Football, dance clubs or Brownies. However, some of children indicated they participated in these activities in the surveys. Understanding the reasons for these omissions could usefully be explored in future work. Was it the way the discussions were framed on play and external space or because these activities are of lower importance to the children and hence not brought up.

The exercise revealed a clear ability of nearly all the children to talk eloquently and intelligently about their local area and their experience of living in it. It gave us rich details on the range of experiences the children have of living in Hackney and raised

issues which may not be immediately obvious to adults. Most children engaged well with the exercise and showed a clear enthusiasm for doing so. The prompt of their maps, with the particular details these included, allowed specific issues and details to be explored with the children. This led on to a more general thematic discussion less focused on specific locations but giving a clear sense of the children's views on living in Hackney, what they liked and their concerns. The conversation also stimulated a desire for many of the children to add detail or new items to their maps as we talked.

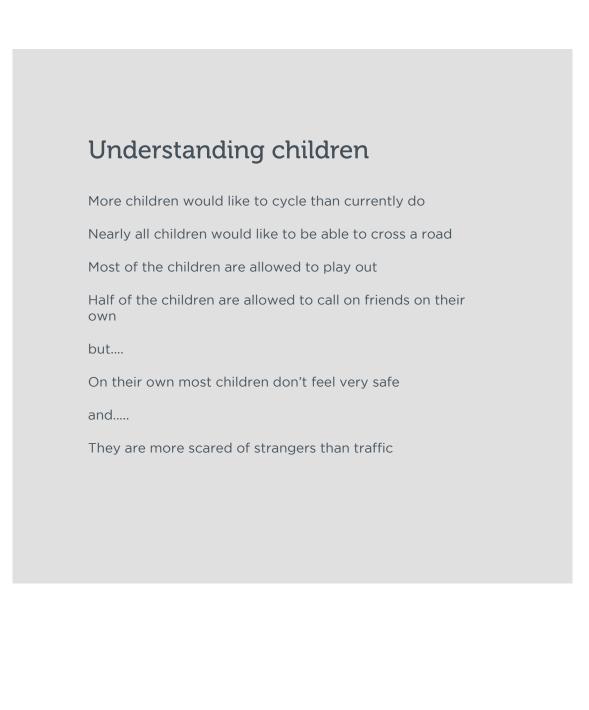
We found that the short focus group sessions 25 minutes were not long enough to fully explore the issues the children wanted to talk about and that we wanted to probe. However, it is unlikely we could have run the sessions much longer and still have retained the full attention of the children involved. In future, splitting the discussion into two 30-40 minute sessions would be appropriate and allow a fuller probing of the responses of the children.

At the beginning of our research we had intended to look specifically at the De Beauvoir Estate with the children, but discovered that only four had or still do live there. The geographical spread of the children meant that they were talking about a range of places across Hackney which they quite often didn't have a shared knowledge or experience of.

The focus groups allowed the children to indicate the places that are important to them, both by highlighting them on their maps, and then discussing them in the focus groups. The focus groups revealed more detailed insights of the children's experience of living in Hackney than the other methods would have gained.

Future work might benefit from ensuring a better geographical concentration of participants to allow a discussion of what it like to live in a particular street or estate and focus on the elements in those places.

Our work with the children has built up a rich picture of the experience of growing up in Hackney. Children for the most part are very positive about their experiences. Care needs to be taken in interpreting our findings as typical of all children in Hackney – every child's experience is different. However, there are concerns and issues that need to be addressed. The awareness of and impact of adult behaviours on children including the effect of traffic, alcohol, drugs, knives and mental health problems have on children's lives, the low status children have in a hierarchy of the use of public space and intolerance of children's behaviour and play all point to areas where interventions are needed to move to a more to a child-friendly Hackney.



Chapter 4

Understanding spaces

One of the central aims in this project was to look in detail at the spaces and places on the De Beauvoir Estate and better understand how children use them within their daily lives. We wanted to use this knowledge to more accurately characterise complex inner city neighbourhoods and represent the factors that influence the use of the shared spaces within them. We reported our findings on the children's lives in the previous chapter; their voices help us to act as an advocate for their needs and provide a foundation for understanding some of the issues they face.

This chapter brings together the insights we have gained from our second research question: What can we learn about a particular place from watching children and adults use external spaces? To do this we worked with the children to understand their perception of the spaces within the estate and we carried out extensive observational work.

We start this chapter by looking at the De Beauvoir Estate, focusing particularly on the public realm, presenting the estate in conventional terms of land use, form and the type of spaces it contains.

The results of our observational analysis follows. Researchers gathered over 110 hours of data during August and September of 2017. This revealed how adults and children use different spaces on the estate and how much time they spend in each.

We then explain how the photographer Madeleine Waller carried out a creative photography and collage project with the children, this allowed the children to investigate the area and engage with the spaces and project in a meaningful way. Their photographs were displayed at an exhibition which included collages of words and photographs of themselves, superimposed onto the photographs. These same photographs were a rich resource that we used to carry out more detailed discussions about the spaces with the children in their classroom.

The research team also carried out a series of walking tours of the estate with the children; the first being the photographic session. Following that, and once we had completed some skill-building exercises, we carried out a walking tour with each class asking the children to give a structured review of five chosen spaces as well as four link spaces between.

Following these trips, we decided to carry out a further walking tour with four children who were, or in the case of one girl had recently been, residents on the estate itself. This tour and the interesting insights it revealed led us to carry out a final visit with the Deputy Mayor of Hackney who was keen to hear for herself what the children had to say about the spaces in their own neighbourhood.

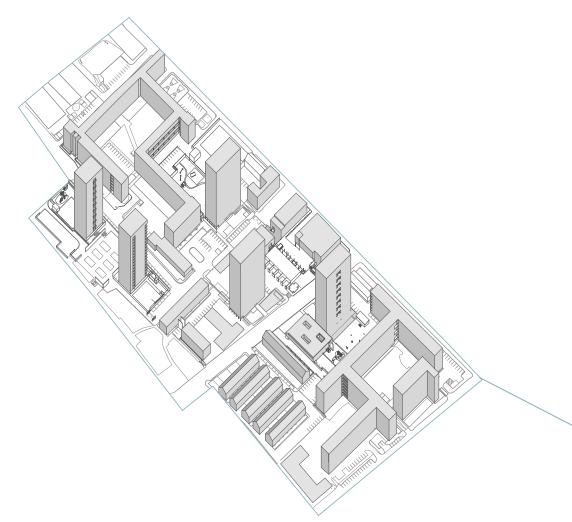


The results of all these findings are a review of each of the five spaces and the four link spaces, gathering our findings, the children's voices and their opinions together. We discover how children 'read' spaces and the extent to which they are able to form an understanding of these spaces in a variety of ways. They are both presumptious and optimistic in their analysis when presented with images.

During the walking tours they revealed their eagerness to play, which of course was almost anywhere and certainly when faced with a wide open space and their own peer group. We were encouraged by this, but mindful of the unusual situation we had placed them in.

On the other hand, the environment unfolded before us during the walking tours with the resident children, who were able to guide us around the spaces and places they used and they ways in which they were able to play and get around independently. Their observations revealed a richer response to the complex and varied spaces around the estate, bringing to bear the surrounding buildings, whose stairways, decks and balconies formed part of their experience and impacted in different ways on their lives.

Form and layout of the De Beauvoir Estate



The De Beauvoir Estate is what is known as a 'mixed estate', which refers to its form and type of housing; five 19 storey tower blocks, three six storey deck access slab blocks and a small number of terraces with back gardens. There are also two 'play decks', paved podiums with parking beneath.

This mix of housing types was intended to be flexible and offer a variety of living arrangements for young people, families and the elderly. In practice a natural movement of tenants between homes did not occur. There is now a mix of tenanted and leasehold properties on the estate, with a higher proportion of the terraced homes as leaseholds.

There are a lot of external spaces on the estate, many of them grassed: there are four distinct 'playgrounds', a MUGA and two first floor level play decks. There is a small precinct shopping area, although a number of the shops are now vacant, awaiting sale or refurbishment by the Benyon family.

Access around the estate is complicated; most of the ground floors offer blank facades, with entrances at first floor level via ramps and staircases. Security fences and access gates have been fitted on some of the blocks. The residents association secured funding for allotments and exercise equipment in a number of spaces, but otherwise the quality of the external spaces is in need of some maintenance and refreshing.



Building type

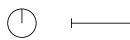




100M

- Residential
- Commercial (may have residential above)
- Parks and Open Space
- Community
- Ancillary Space
- Car Parking and Private Space
- □ Roads
- Canal

Open spaces



100M

Five spaces studied

- 1 Two playgrounds
- 2 Precinct
- 3 Playground
- 4 Playground
- 5 Landscaped green area adjacent canal

Other open spaces

- 6 Garden with seating. One entrance
- 7 Multi use games area (MUGA)
- 8 Green space at rear of gardens.
- 9 Green area. Mainly fenced
- 10 Allotments
- 11 Upper level play deck
- 12 Fenced green area
- 13 Upper level play deck
- 14 Green courtyard
- 15 Green courtyard
- 16 Green space

Introduction to approach

Space, time and permission

Our background chapter suggests that the three conditions for supporting children's play are space, time and permission. All three of these aspects are built environment issues and have overlapping concerns.

To begin with, there needs to be enough of the right type of space for children to play and importantly it needs to be available and accessible. This project intends to examine what some of the issues are associated with type of space and accessibility.

The hours of daylight varies considerably between summer and winter. Our observational study period in late August/early September allowed us a larger window to view children and adults using the spaces around the estate up to around 8pm when it became dark.

Conversely our work with the children was carried out during February and March when the hours of daylight are much reduced. Children's available time is greatly affected by this and the configuration of space and artificial lighting needs to take these changes into account.

Permission can be given directly, by an adult relative or friend, for example supporting children, allowing them to play outside with friends, if need be keeping a distant watchful eye. Indirect permission can come in the form of encouraging signs (which the estate lacks) and play equipment, which sends the message 'it's ok to play here' albeit in rather a specific way.

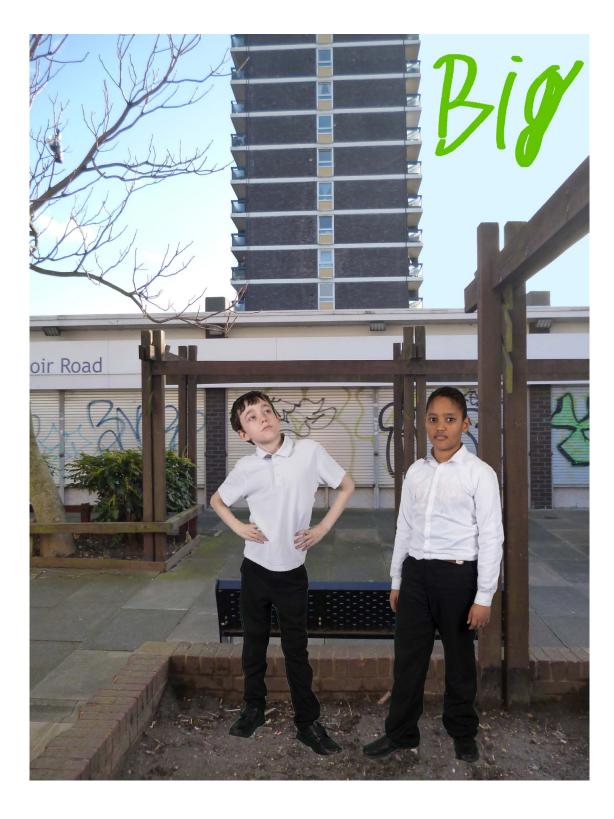
Permission can be restricted or taken away, such as by adults shouting at children to be quiet or indirectly by the presence of signs dictating rules of behaviour, such as 'no ball games'. The estate has plenty of both.

There are other less obvious ways in which children may or may not feel they have permission to play outside. We sensed the children we were with were alert to adults' reaction to their behaviour, constantly keeping themselves in check.

The children we spoke to and the ones that we observed are resourceful and ingenious when it comes to playing in their local area: They showed us where and how they played, for example using lampposts and roofs for 'parkour', claiming the estate to be 'the best place to learn to climb'. They showed us how they explored and played hide and seek with their friends, even scaling single storey fences and security gates to continue games. They showed us where they played football in the car park, until it filled up with vans.

However the numbers of children playing are relatively low, are mostly boys and seem mainly to be concentrated in one area on the estate.

In the following sections we give details of the work we carried out, using observation, photographs and walking tours and the analysis of each space that paints a varied picture of spatial arrangement and activity across the estate.



Observational analysis

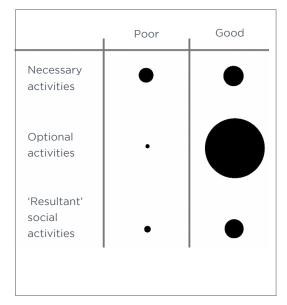
The observational research was carried out during the summer of 2017, several months before the school workshops. The five spaces examined were

- 1 Two playgrounds
- 2 Precinct
- 3 Playground
- 4 Playground
- 5 Landscaped green area adjacent canal

Together, these yielded over 110 hours of data. The methodology used to gather data is based on that used by the architect and urbanist Jan Gehl. In his book 'Life Between Buildings, Using Public Space' (Gehl 2011) he suggests that a 'good' physical environment is one where there is a high level of optional activities, such as sitting, eating and play, compared to a 'poor' environment where there is a lack of these things. From these optional activities he suggests that there is an opportunity for 'resultant' social activities, more likely to occur in a 'good' space. These ideas are represented in his diagram, figure 3.

What Gehl is suggesting is that a 'good' space does not encourage any more necessary activities but will have a very large impact on the non-social, optional activities.

Our research (Bornat 2016), revealed that in residential schemes the number of necessary activities were consistently greater than the optional and social use of external spaces. We also discovered that social use of space was greater than optional, most of the people outside for extended periods being in groups of three of more. We suggest these are characteristics of residential spaces, as



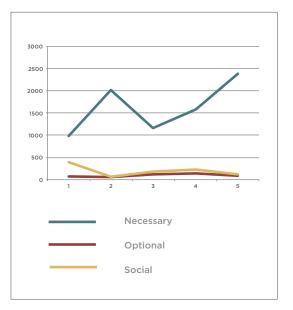


Figure 3: Quality of the Physical Environment (Gehl 2011) Figure 4: The relationship between Necessary, Optional and Social activities for each of the five spaces compared to more civic spaces and that the shared and public spaces within local neighbourhoods are inherently spaces where social activities occur.

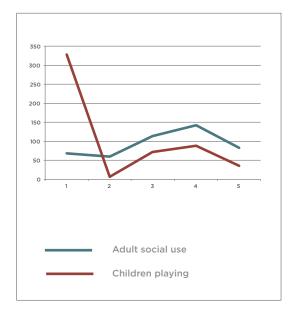
The three graphs, Figs 4-6 examine the relationships between necessary, optional and social use of the five spaces, as well as the difference betwen adults' and children's (aged 5 to 12) use.

Figure 4 shows, as with our other research, that most people in each of the spaces are passing quickly through. Space one has the highest level of social use, space two the lowest. In general social use is greater than optional use.

What Figure 4 also shows is no particular correlation between necessary and optional/social use. Where there is more movement through a space there is not necessarily an increase in optional or social use of that space. This has implications for suggestions to increase pedestrian movement through the estate as it may not result in increased social use of spaces.

Figure 5 shows a correlation between numbers of children playing and social use of space by adults. However in De Beauvoir we do not see children as the dominant users of these spaces, other than in space 1, which has a particularly high number of children playing compared to the others; over 300 counted across the seven days observed.

Figure 6 shows the low level of teenagers (13 to 18) using each space to play or hang out with friends. It also shows a correlation between independent (unsupervised) play and adult social use.



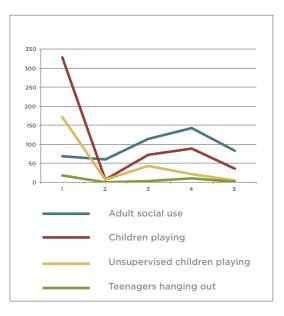


Figure 6:

The relationship between adult social use, children playing and unsupervised use by children and teenagers for each of the five spaces

Figure 5:

The relationship between adult social use and children playing for each of the five spaces

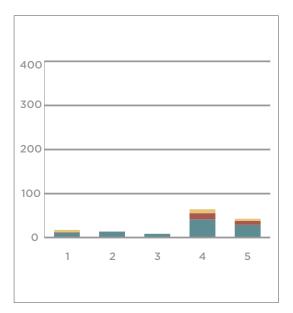
Time spent outside in each space

The graphs below and overleaf, figs 7 to 11, shows what we refer to as extended use of space (greater than a moment) for each of the age groups noted by the researchers.

Adults are seen outside more than any other age group, the majority of their time outside being less than 10 minutes. Local statistics (source NOMIS) reveal the adult population (ages 20 to 64) to be 73 percent. Children under 5 are 6 percent and children between 5 and 14 are 9 percent.

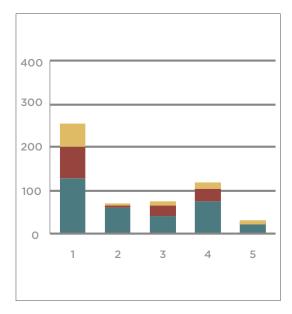
What the graphs reveal is that although the number of children (aged 5 to 12) outside is lower than the number of adults, their numbers are proportionally higher given local population percentages. In other words, as we have found in other research, children are more likely to spend time outside and for more extended periods than other age groups.

The different levels of use for each space is marked. Space one sees the greatest amount of children playing outside, independently mobile and for extended periods. Unsupervised use of the space was high, for both playing and passing through; 303 children and 228 teenagers were recorded using this space without an adult. 50 children are seen spending more than 30 minutes in the space over the total 22 hour period. Within that, it should be noted that it was almost exclusively boys seen playing outside and that the majority of their play was in the car park, playing



Pre school age: under 5

Children: 5 to 12



football.

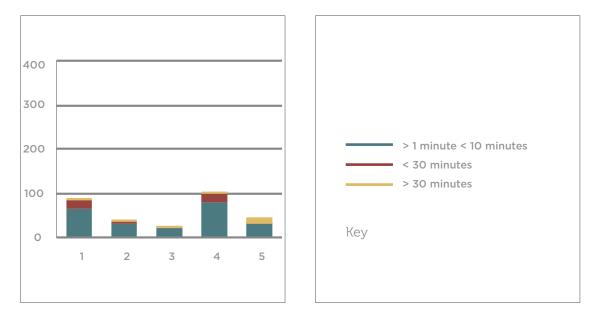
In space two, about one quarter of the people passing through were on their way to and from the shops. Space two had the second highest number of people passing through, but had low social use by adults and by children playing. It had the second highest for children's independent mobility (after space 1).

Space four has the highest number of small children (under 5) and is the second most well used by all other age groups.

Space five is most well used by adults, but less so by other age groups. Children spend the least amount of time here compared to all other age groups.

Overall the graphs show most of the extended use of the space was for a period of less than ten minutes. However this may reflect the 'coming and going' nature of play; our researchers noted they were more often observing the same children reentering the space they were studying, but needed to count them again according to our rules. This suggests the extended period is unlikely to fully represent the number of children spent longer outside, but rather the *collective* time spend outside. For these reasons it can be beneficial to use a time multiplier to better compare amount of time spent outside.

We are concerned in our research, with what we might need to know about the physical attributes of a particular space and neighbourhood and how this might contribute to the numbers of people using each space for various activities.

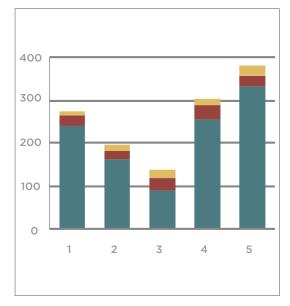


Teenagers 13 to 18

Previous research has led us to believe that where children use spaces for play, independently, other age groups tend to use these spaces for social use as well; typically observing others or in a group. This project offered us the opportunity to learn from a varied urban environment and importantly, to be able to listen to children and discover more about these spaces and the reasons they may be offering different levels of use.

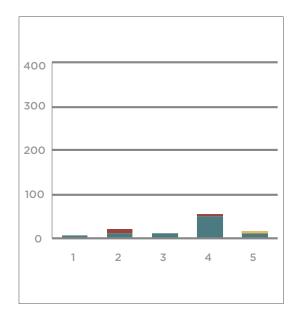
The next few pages explain how we used a creative photography exercise, a subsequent in-class analysis and then a walking tour of all five spaces to gain further insights into the children's own perception of these spaces.

Our intention is to study the spatial and physical aspects of these spaces that children may be responding to, either intentionally or subconsciously. We suggest that through listening to the children's voices and paying attention to the conditions that influence their play we may be able to make effective suggestions as to why and where the spaces are not working. Eventually, with further participatory work and targeted improvements to the public realm it may be possible to significantly increase the levels of social use and play that is seen in these spaces and across the estate as a whole.



Adults: over 18 up to 65

Older people: over 65



Observational data findings

The social and extended use of the five spaces studied in the estate varies significantly.

Given the similar population demographic, this suggests that there are physical and spatial aspects that are influencing children and adults' use of these spaces.

Space one shows the greatest use of space for extended periods, mainly by boys who play out here.

We suggest:

The estate has potential to increase the levels of play and social use by focusing on physical and spatial improvements.

There is a need to increase play opportunities for girls.

Social use of the external spaces may not increase by simply encouraging more general movement through the estate.

Photography

On these pages are two examples of the photography and collages that the children produced with the photographer Madeleine Waller. Madeleine worked with the children over four sessions and created an exhibition of large scale prints and collages.

The children showed a great ability to see scale and detail; they looked up and shot big vistas with looming housing blocks, lay down and took photographs at alternative eye levels; they climbed and explored and revealed the great variety of spaces and places in the estate and surrounding streets. Overall they were adventurous in their approach to taking photographs and enjoyed selecting and working with them in subsequent sessions, regularly making claims on their own authorship.

At the exhibition on 10 May 2018, which was full of parents, carers and siblings, they were proud to show their work to the school, their families and to the Mayor and Deputy Mayor of Hackney.



Photograph by Year 5 pupil

We selected three children to talk directly to the Mayor and Deputy Mayor about the work of the project and about their lives in the places around the estate. They spoke in front of adults, other children and their parents.

We recognised that they were less able to talk freely in this setting and so agreed to arrange a subsequent tour with the resident children and the Deputy Mayor, so that she could experience the same exuberance and detail from the children we had experienced during earlier tours.



Collage by Year 5 pupil

Analysing the photographs

This exercise was short and well structured; the children were organised into small groups and shown a selection of 20 of the photographs that they had taken during their visit to the estate with Madeleine Waller. The photographs acted as prompts that allowed the children to talk generally about how they play and what prevents them from doing so in some instances.

The children were asked to choose photographs to talk about; sometimes analysing and sometimes explaining why a space might be good or bad. It sparked a lot of conversation about the spaces and how they might use them.

At the end of the session they were asked to place green, amber or red coloured post it notes on as many photographs as they chose to, to indicate whether they thought a space might be:

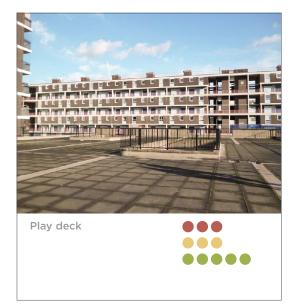
- free to play in
- need support to play in
- not allow them to play at all

We show the results of a selection below each photograph. In general, children saw play opportunity in every one of the photographs, even with the lowest scoring bin store (bottom right). The spaces which received the most green votes tended to contain play equipment. Those with a mix or with more amber scores were either green or paved/tarmaced, the presence of grass did not seem to give any extra weight over a hard surface.

The most popular space within the estate was space one. The children gave it 11 green votes. One child said: *There's a lot of activities you can do. You can play with your friends. I know because I used to play over here when I was little.*

During the general discussions we heard that many of the children played in parks





either close to home, further afield or both. Between them they had a range of experiences.

For example, one girl who said her dad drives her to places, described her opportunities for play as 'rubbish' she didn't like going to the 'baby park' next to her flats and that there was nowhere else to go. She said that the other parks were 'dirty'.

Another boy said his opportunities for play were 'fantastic', he played on his PS4 and went fighting with his friends in the park outside his house. He said he played 'knock down ginger' every day.

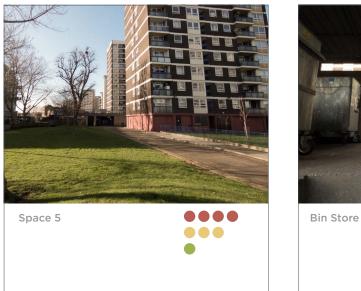
One boy said he 'wasn't sure' about his opportunities for play, he couldn't go anywhere by himself as there were other dangerous people.

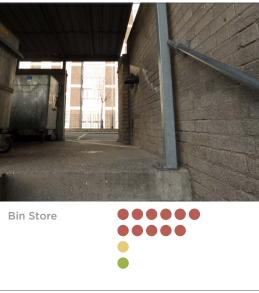
We discovered that a lot of children like going to the chicken shop, also talked about sweet shop and shopping with their parents. They felt safe in shops too.

During this session the children talked about playing with other age groups; brothers, sisters and cousins as well as non relatives. One boy talked about playing football in the park with teenagers.

Resourceful

The children's resourcefulness was revealed; one boy describes playing football in the car park next to space one, with his friends. He describes the two goals they made at each end. He said it was easy to play football there as they are safe from hitting a window. Another boy asked 'are you sure?' and he said 'yes'. This conversation is continued on the estate tour, he is one of the four children who lives or lived on or close to the estate. However he said it was no longer any good for





football as too many cars and vans were now parked there

Permission

Photographs of spaces that included play equipment prompted the children to give a more positive response to play and the different activities they could do there. Spaces without equipment tended to score less well and if were scored were often given amber votes, if at all. Of the photograph of space five (previous page) one child said:

If there is no playground it will just be boring, just me kicking the ball and walking around.

The exercise revealed how sensitive they are to adults' permission and being reprimanded:

If you kick the ball to too hard and it hits a window you might get in trouble and the person like their window, might call the police

Its like a dangerous place and also because if you're playing with a ball and you accidentally kick it and it breaks down the windows someone might get up and they might get really mad.

Other more general fears:

People yelling, arguments, cars beeping, strangers, stalkers, rude swearing people, the boats with the horns

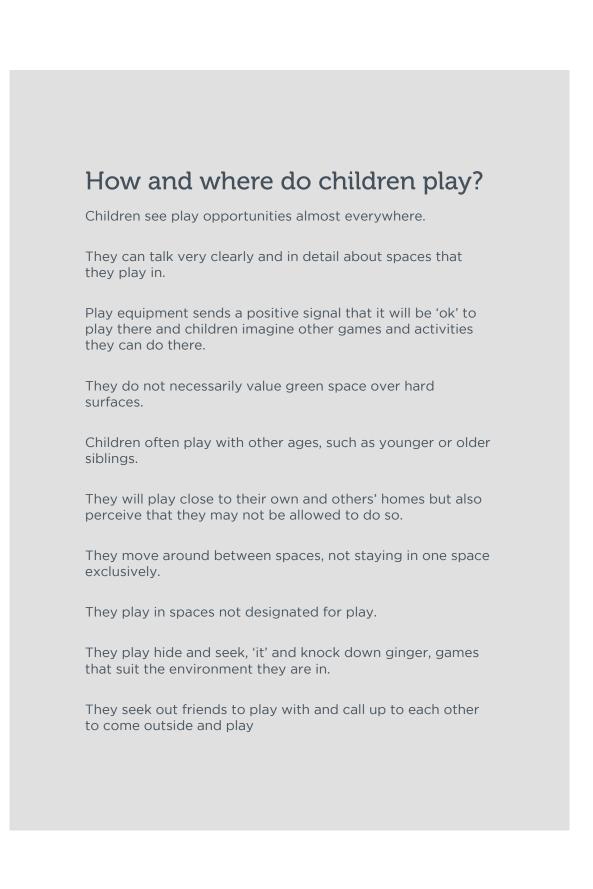
Cars

Some of their photographs included car parking areas and roads. The children are aware of the dangers of cars and of how they restrict their play:

And if a car comes you're just going to have to keep going there (points to another place on the photograph)

I like over here (looking at photograph of allotment area), because like it's a road and it's like there's buildings like and there's grass and things there, like a gardening place and cars and motorbikes come past so you might get run over if you're not paying attention

If someone come too fast and you don't know they're coming too fast, you might just *boom*



Walking tours

Towards the end of our eight sessions with the children we took each class on a walking tour of the estate to look specifically at the five spaces that had been identified at the beginning of the project for observational analysis. We had prepared them for this session with various exercises, including the 'playground detectives' work.

During the tour we asked them to record the following:

- Is there space to play: Lots, some, none?
- Are there things to help you play: Lots, some, none?
- Are there cars?
- Are there things to stop you playing?
- This space is: Free to play (green), Better with grown ups (Amber), No good for play (red)

We also looked at four in between spaces that we called 'link' spaces as we are interested in how the children might get about between the shared spaces on the estate.

The same questions were asked in the 'link' spaces and in addition;

- Can you see a space you can play from where you are? Yes its easy to get to, Yes but I have to cross a road, No.

Our tours revealed that the children, who mostly do not live on the estate, have quite unexpected reactions to the spaces; for example the spaces they liked best or where they felt children would play more, were not the spaces that we had observed to be so during our observational work.



Walking tour with class



This prompted us to set up an additional tour with the children who live on the estate. Their stories and observations revealed a much richer picture and one which tallied with our findings. Not only did they describe how they played in the spaces, they went further, talking about other spaces they had found to play, such as a plant room roof, lamp posts and security fences that needed scaling to get access to the block. We call these children Girl A and B and Boy A and B. Girl B now lives elsewhere.

The following pages are a more detailed analysis of the five spaces, gathering the class's observations, the resident children's observations and that of the researchers who carried out the observational study. It begins to build a clearer picture of the varied conditions that the children respond to, which helps us to understand more clearly the physical aspects behind children's play and wider social use.

Space one

Space one is the largest of the play spaces in the estate, it is overlooked on all four sides by dwellings and from the play deck, below which is a car park, now used by Hackney Homes for storage. There are two areas with play equipment, one grassed and one with a rubber surface.

The grassed area is freely open on all sides, with bollards where it is adjacent to access roads. The play area has two entry points, one from the access road and one from the stair which leads onto the first floor play deck. There is no direct connection between the grassed area and fenced off play area. The housing overlooking the space is a mixture of medium and high rise, the former with deck access and open stair cases and the latter with balconies. To the south is a short row of maisonettes, accessed by a footpath. Some of the equipment is over 20 years old and in general it is in a fairly poor state although serviceable.

The children who worked in pairs, mostly scored the space as 'green', but there were three pairs who scored it amber and two who scored it red. At the end of the tour, the children ranked it as their LEAST favourite of the spaces and thought children would play here the least out of all the five spaces they looked at.

During the subsequent visit to the estate with the four resident children we heard a very different story, the talked with great delight about their play experiences here. These children, two of whom's homes overlook these spaces and one who did but recently moved, felt it was good place to live, although Girl A, thought it was 'half good and half bad'. The two boys explained that the car park offered a good space for playing football as there is a natural goal and little chance of breaking a window.

Girl B, who now lives elsewhere, described playing out frequently, with her school friends and others. She said there were always 'lots of children in the playground'. They all described in great detail a number of games, including parkour from the deck, using the adjacent lamppost to descend. They play hide and seek often and talked about having to climb round the security fence to get into the block. They were used to having to climb around fences and over railings to get to where they wanted to play.

They had ventured into the covered car park to retrieve a ball, but found it scary. They had strong memories of growing up and playing together as young children, for example falling over in the snow when they were two years old.



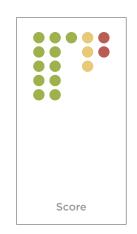
Boy A, who lives next to the playground said he does see older children and had been 'punched in the face five times'. However he said that he and all his siblings, including the very youngest, are allowed to play out here, as long as their mum can see them from the balcony. Girl A said she is allowed to play outside with her younger siblings, but only if her parents are there. The children said they did play on the podium, Girl B said she would throw her shoes up there, or they would cycle around it on their bikes.

They described being told to be quiet by the neighbours. They knew the flat number of one particular neighbour who would tell them to be quiet. Boy A said if that happens he moves to another space, but then it might happen again and eventually he would have to give up playing outside.

During the exhibition in May 2018, three of the children talked to the Mayor and Deputy Mayor of Hackney. Their parents listened in and contributed. The mother of Boy A, said she had mixed feelings about him playing out, but felt relatively safe as she could call him from the balcony and he would return into view. She said she knew he probably roamed further than the playground spaces, but that she couldn't stop this.

The researcher for space one said she usually saw the same group of boys playing, around the age of 10 or 11, sometimes with their younger siblings. She only saw two girls playing out during the whole of the study period. She saw a number of children calling up to their friends to come and play and children calling down from windows. She saw children joining in play with other children, in one instant through persistence; after being told they didn't want that child to play with them. She also said she saw teenagers appearing to want to play in the playground, but looking uncomfortable and choosing not to. She spoke to some parents who had lived on the estate since they were children and said the play equipment was at least 20 years old. They had very young children and felt they would be safe playing in this space when they were older, although they felt it often had broken glass and was not cleaned regularly enough.





Space two

Space two is towards the north edge of the estate and can be accessed from Downham Road to the north and De Beauvoir Road to the east. It is paved and pedestrianised and contains brick planters and seating with timber pergolas.

A single storey row of mainly vacant shops run along the south side and the Rose Lipman centre is to the north, containing an arts space and a nursery, at a raised ground floor level. In the south east corner is the estate's neighbourhood office.

The access road to the north has a short row of shops with flats above. These include a cafe and newsagents which are both fairly busy, also a picture framing shop.

We chose this space in order to compare its use to the other four spaces which are more obviously intended for play. It is the only one of the five spaces that contains no grass. It includes some small trees and there is a small amount of green within the planters, these are poorly cared for and some have become overgrown.



The children gave space the least number of green scores, approximately one third assessing it as orange and the remaining percentage saying it offered no play opportunities.

The resident children said they were more likely to use the corner shop on Downham Road than to visit the newsagents here. During the tour they took us to the corner shop and were keen to introduce us to the shopkeeper who they said they knew and liked. He offered them each a free lolly when we were there.

The researcher in this space said he saw a lot of different people in this space, by the end he thought maybe he could recognise about 10 percent of them. He had the following to say;

I thought there'd be a lot more intimidation than there was. In fact I didn't feel intimidated at all. So it was a pleasant surprise in that respect. I was in quite a normal living environment. Not much different to, say, walking down a street with terraced houses, you know.



Space three

Space three is toward the north east of the estate, set back from Downham Road behind the temporary school site being used by Hackney New Primary School and earmarked for residential development.

The playground is ringed by car parking and vehicular access and surrounded by residential blocks to the east, south and west. There is a level change across the site creating a two metre drop from north to south.

The play area itself is grass and here the equipment is timber, rather than steel as in space one. It contains a swing, a slide, a small climbing frame and some balancing bars. There is an additional fenced off space in the south east corner of the grassed area which recently has had some fitness equipment installed.

Views into the space are blocked by a substation when entering from the south east corner. To access the play space, children can climb onto the climbing frame from the pavement in the south, otherwise they need to walk to entrance points in the north. There are some negative messages about play, with 'no ball games' signs in constant view, although goal posts have been painted onto the walls in the play area.

The photograph shows where a path has been worn across the playground, but this is a transverse route and wear is not evident around the play equipment itself, suggesting it is not very well used.

During the class walking tour, the children identified this as the space they believed would be MOST well used for playing on the estate. They all marked it as green; best for free play. They also liked the look of the play equipment.

The resident children said that they didn't play in this space that often, although they thought it was the nicest of the spaces we looked at, although not surprising given that all four of the children live elsewhere on the estate.

Girl B said she thought it had 'more interesting stuff', Boy A saying it had 'a better playground' than space one.



We interviewed the researcher who carried out the observational work, she had the following comments:

There were definitely people making use of the playground...(staying) on average about 17 minutes...and it was unsupervised. But it also definitely felt like there was less to do for them in the playground.

There was this group of boys, who I saw most days, who I would say were on average about 10 or 11 maybe...and sometimes there were a couple of younger ones with them, and sometimes there were a couple of older ones with them. But there was kind of like a cool group of them, about 7 of them. And I saw a lot of them.

You had the kids that tended to play in the playground, I felt on the whole were the kids from, who lived within that square, and a lot of times they'd all go and they'd knock for each other or they'd like shout out for each other, or they'd kind of shout out from the balcony to the playground.

They tended to do a lot of wandering, so they'd go in the playground, and then they'd kind of walk outside the playground and then they'd kick the football around the gravel, and then they'd kind of come out of my sight, and then they'd come back into my sight.

There were some benches sort of outside the playground in the square, and teenagers would kind of come and sit on them. Like from time to time they would sort of smoke weed there, and just sort of listen to music and just sort of chill.

Some children did approach her, they said they said they had seen drunk adults defecating in the playground. They wished there were signs telling them not to.

And of the adults:

There weren't really any grown ups that would ever actually come down into the square, but there was definitely some of them making use of the balconies (deck access). Like there were a couple of times where a group of adults would sort of sit on the balconies and chat and smoke... there was one time when a group of them were sort of drinking beer on the balconies.







Score

Space four

Space four is a green area and play area situtated on Balmes Road to the west of Granville Court. It is set down from the road level, behind a fence and planting strip and is accessed from the road adjacent to Granville Court or through the bin store.

It is overlooked by Granville Court which leads directly to the green area itself. To the south is the canal and in between are a small number of raised beds, which are well cared for and were set up by the resident's association. It is partially overlooked by St Aubins Court, a six storey block to the north, which runs along Balmes Road and is set back from the street behind a grassed area fenced off from the street and inaccessible from the dwellings.

It was chosen as it is said to be one of the more well used spaces on the estate, used often by parents with their children. The chair of the residents association is a resident in Granville Court and believes that the playground is fairly popular. He was involved with gaining funding and setting up the allotment, along with other residents.



During one of the whole class visits one boy said he would be worried to play football here in case he hit someone's balcony.

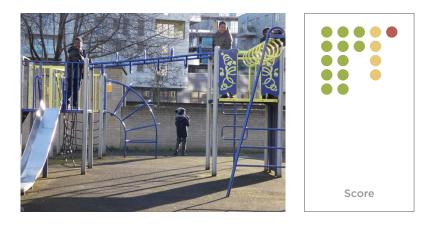
The children ranked it as more green (free to play) than orange or red, it was neither the most or least favourite space.

The researcher in space four was observing both pedestrians along Balmes Road and the adjacent playground which is at a lower level.

On one of the Saturdays there was an organised activity for the residents in the play area; a bouncy castle and other activities. This is likely to have given a greater recording of social use than on a more 'typical' day.

The researcher saw a variety of play, both supervised and unsupervised. She saw children playing on the roofs of the bin stores and playing on walls. Twice she saw children playing in the playground whilst their parents/carers were in the allotments or raised planting area.

She saw children wanting to play, but being moved on by their parent/carers. She saw children being told off twice, once for swearing and once for making too much noise.



Space five

Space five is the largest of all the open spaces on the estate. It is situated on the south edge of the estate separated by a fence from the Regents Canal and towpath.

It is very poorly overlooked and only by a short run of terraced houses in the north east corner (see photograph on adjacent page, bottom right). Otherwise there are two blocks to the north, both of which are blank at ground floor level the lower of the two, St Helier Court, presents a blank flank wall, the other Corbiere House, has no balconies or living spaces overlooking the park from its upper floors.

To the north, between these two blocks is a fenced off green area, with recently installed fitness equipment. There is an access road to one side of this, leading to Balmes Road, which has a clear sight line right through the estate to Downham Road in the north. This is the only clear view through the estate.

To the west of Space five is a set of stairs leading up to the second of the two play decks on the estate.



Space five is thought to be a nice and well cared for space and during the walking tour the children rated it as their most favourite space.

During the tour with the children who are or were resident on the estate they said they felt uncomfortable here and wouldn't come here to play. They said 'it doesn't lead to anywhere' but couldn't coudn't give any specific reasons why they don't choose to play here.

During the observational study, one man volunteered to the researcher in this space that 'no-one is going to let their kids play here'. On two occasions she left a little early as she felt she was getting too much attention from groups of young people and from a lone man one afternoon.



Link Spaces

Between each of the five spaces we identified four 'link' spaces that children could potentially use to get around the estate, from space to space. Each of these links was primarily car free; a footpath or pavement, although cars were visible. Where they could see them, some of the children perceived cars as being within the space itself, we sometimes corrected this assumption, but it was revealing that their presence was noted and potentially had an impact on whether they thought these spaces were safe for them to move around or not.

We asked the children to answer the following questions when they were in the link spaces:

- Is there space to play?
- Are there things to help you play?
- Are there are cars?
- Are there things to stop you playing?
- Can you see a space you can play from where you are?

They were then asked to rate the link space as free to play (green), better with grown ups (amber) and no good for play (red). Each of the link spaces are shown below, with their subsequent rating.

Link space A is adjacent the play deck. In this photograph you can see a boy playing football. Most children thought they might be able to play here. The majority of children said that from space A they could see a space to play. Some thought the houses nearby would stop them playing here.

The class children said they wouldn't feel very comfortable here, one girl saying she would be worried about adults taking her away.

The resident children described this place as where they do play. The lamppost used for parkour from the deck down to the paved area.

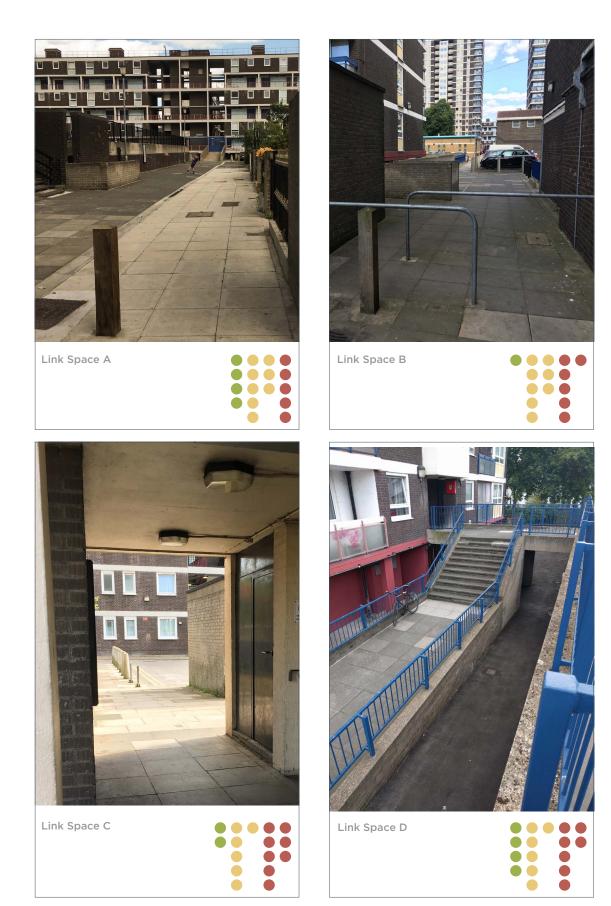
Link space B is effectively a straight line between space two and space three. However, there are low walls and a substation blocking a clear view into space three. There are also bollards and car parking along the way.

Most children said that from link space B they could not see another space to play in. They rate it less effective for free play, but the same for adult supervised play.

Link space C is an under croft and pavement with no clear sight line from space three through to the road. The children rate this space less playable.

Link space D is behind space four, is car free but rather convoluted, it rates similarly to link space A.

To conclude, none of the four link spaces and indeed the rest of a potential network around the estate has much to offer children in terms of getting about safely or feeling they have permission to be there playing in between.



Reflections

We have conducted an extensive programme of work to understand the way spaces are being used on the De Beauvoir Estate; a traditional approach to mapping and observation of the use of space has been complemented with approaches that allow children to indicate and articulate how they might use space, through photography, discussions and walking tours.

Our initial perceptions of the spaces, their likely use and the preferences children would have for using them developed during the project. We found that children respond positively when they see play space and play equipment and more so when this seems to be of a better quality. However, their perceptions do not appear to correlate with actual use; we subsequently discovered that children who do live in the estate are able to add to our understanding of the spaces, which lead us to consider them as the experts, making it possible to build up a much clearer picture of how and why children access and use the spaces.

They children we spoke to want and need to spend more time outside than adults do, as our data suggests. This is an extremely important point and affirms the statement that children need **space**, **time** and **permission** to play which we believe should be a central focus of built environment policy. So what is it we have learned from our research about how these aspects might vary? The observational work discounts time as a variable, all spaces were studied simultaneously. This then leaves the space and permission aspects. What is it about each of these spaces that causes the variation in their use, is it the quantity or quality of the spaces, or is it a series of other variables? We discuss these points in our next chapter, *New ways of mapping*, where we also aim to capture and communicate the complex arrangement of spaces and use.

The difference in the abilities to describe the potential use of space between children who live (or have lived) on the De Beauvoir Estate and those who do not, raises important questions around the way in which children's views are heard and how they are involved in planning and regeneration projects. Many children offered views on how much they would use a given space, but these claims must be viewed cautiously. The animation that groups of children bring to public spaces is highly likely to influence their assessment of the built environment. Empty spaces, unappealing to adult eyes and unused according to our observation work, were transformed by the presence of a dozen ten year olds. The potential for play was greatly increased. This poses challenges for urban professionals charged with improving the public realm who may not have the time or skills to develop a clear analysis of how spaces work or could be improved. We look at this again in the subsequent chapter, *New ways of engaging children*.

The children we spoke to are beginning to be given the freedom to play outside and meet friends, some more so than others, but all would like to play out more. All the children we spoke to said they would like more spaces to play in, more of what they already had, not necessarily better. There is potential to increase the levels of play and social use on De Beauvoir Estate so that it meets and possibly exceeds the best used space on the estate.

Whilst this study did not involve older children we speculate that similar spatial factors will support teenagers, as whilst they look to broaden their horizons with more spaces and facilities, they are at the same time supporting younger siblings

and indeed often choose to hang out close to home with friends.

Indeed as our data suggests, the presence of children in a space tends to go hand in hand with greater social use by other age groups, leading to wider benefits across the whole neighbourhood.

Understanding spaces

Children need space, time and permission to play

Traditional approaches to mapping do not reflect how spaces are used or experienced by local children.

First impressions of spaces are often not accurate.

Local children are the experts.

Children naturally spend more time outside than adults do.

Given a choice, children would like MORE spaces to be able to play in.

Children can report very accurately about a space if they live there; their responses chiming with recorded use of these spaces.

Certain physical factors have a significant impact on the use of a space.

Chapter 5

New ways of mapping

This project has allowed us to examine how a series of public and shared spaces are used by adults and children in their local neighbourhood. Alongside this we have looked in detail at children's own experiences and their opinions and perceptions of the same spaces. In this section we draw the strands of the research together and present a new way of mapping the neighbourhood, showing how spaces are able, or not, to support play and children's independent mobility within what is a complex urban system. In doing so we seek to begin to establish the spatial aspects of the 'child-friendly city' requirements.

Play and independent mobility are inextricably linked activities that define children's use of space in their local neighbourhood, often distinct from patterns of adult pedestrian movement and social use. Our unique approach to mapping children's behaviour, assigns it much needed attention, giving it prominence and value. In doing so we seek to raise play to a more strategic level, both a valuable outcome in itself as well as an enabler of broader social outcomes.

Mapping social use of space has a long history, Charles Booth's 19th century maps of poverty in London serve to highlight inequalities across the capital on a street by street basis. Laura Vaughan in her excellent account of social cartography, draws heavily on the legacy of the Booth maps (Vaughan 2018). Vaughan highlights the importance of maps to various disciplines, but notes; 'their importance as sources for information on the spatial structure of society is understood to a much lesser degree and is sometimes avoided entirely, for fear of deterministic interpretations of how the built environment affects social outcomes.'

Addressing issues of society is no longer avoidable to those concerned with the built environment and particularly with housing. Social sustainability and health and well-being are current terminologies that require focus and understanding at a number of scales; from the wider city to the neighbourhood and individual level.

Our maps describe a hierarchy of external spaces within the De Beauvoir Estate, based on a series of principles first defined by ZCD Architects (Bornat 2016) and subsequently developed in this project through the observational research and focus group work with children. The values assigned are developed from an understanding of how spaces in a local neighbourhood contribute to children's everyday lives.

Through analysing, coding and colouring all external spaces in a systematic way we create a new language, articulating the public realm from the point of view of the child. The maps are intended to be communicative to a wide audience and a valid and useful tool for professionals concerned with social value methodology.

Space and permission

In the previous chapter we sought to understand the variable physical factors associated with the use of each of the spaces we have studied. Overleaf we look closely at one of the spaces and represent the elements we believe most critical for supporting children's play:

- Type of space and equipment
- Connection, circulation and sight lines
- Access and overlooking from dwellings
- Vehicles

We use icons and colour coding to illustrate these aspects applying them to 'folded out' diagrams, allowing us to review both the space itself and the surrounding buildings. For brevity, we have presented one such space.

We apply this detailed thinking, along with the observational data and the children's own experiences to create two new types of maps of the entire estate: the Heat Map and the Networks and Connections map.

In many ways, these two maps represent play and independent mobility respectively. However as these two activities rely on each other, the maps should be read in conjunction, describing the physical system and spatial elements behind the child-friendly city principles.

The Heat Map uses a ranking system that correlates with the actual use of each space, revealing a great variety across the estate. In general there are very few of what we call 'warmer' spaces, those that are well overlooked and connected to other spaces. This suggests that despite the abundance of outside spaces, there is very little of the right spatial conditions that can support children in using the spaces in the estate to play, meet friends and get around safely. It is not surprising then that our data reveals low levels of play and social use in four of the five spaces we studied.

The Networks and Connections map shows the disjointed nature of the spaces, poor connections and poor sight lines between each space prevent children from going about their play in their usual meandering pattern.

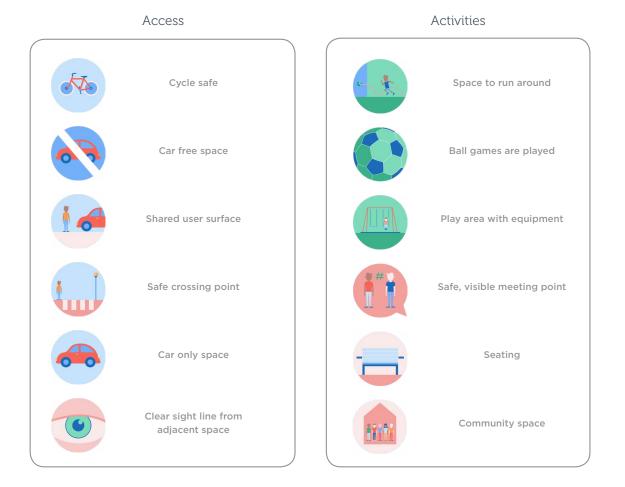
By mapping all external spaces in this way we give value to the way in which children use space as part of their daily life. We suggest, that in order to effectively plan or alter neighbourhoods this type of spatial analysis and understanding of how children use space needs to be employed from the outset. Play and independent mobility should be presented alongside the linear adult movement patterns, such as described by space syntax theories (Hillier 2004). This child friendly 'system' approach should be allowed to challenge more conventional urban planning and design guidance. It is necessary if children's lives are going to be effectively catered for in the neighbourhoods and communities responsible for nurturing and raising them.

Icons and colour coding

The icons and colour coding we have developed for De Beauvoir Estate are applied to the space and the surrounding buildings in order to highlight the features that our research shows support play and wider social use. In doing so we seek to begin to visualise the estate from a child's perspective; representing a range of their activities, the impact of vehicular use and the protective and supportive nature that surrounding buildings are able to offer.

Each space is analysed in terms of pedestrian and vehicular access. In the case of De Beauvoir this is mostly traditional, with no shared user surfaces.

In terms of activities that could occur here, we categorise the space in terms of play equipment, space to run around and space for meeting or sitting. Other codes that could be applied, such as formal planting and gardening, do occur elsewhere on the estate in spaces that were not studied. They are not represented here.



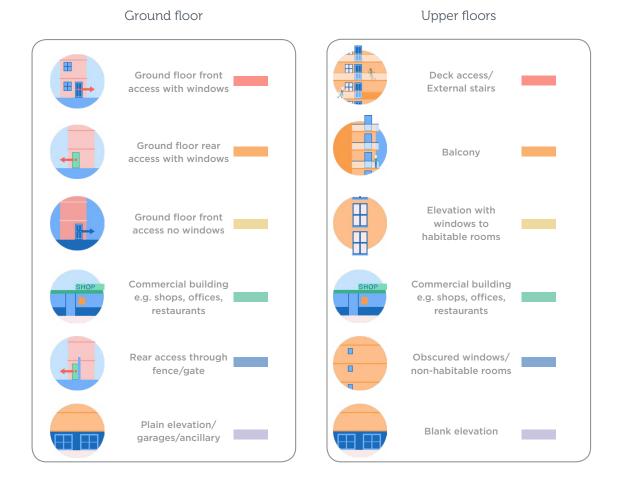
SPACE

The buildings are coded according to the social contribution they can offer to the children using the space, in other words the degree of overlooking they provide from circulation, windows and balconies. These aspects are important to children who use them to call up to friends and for parents who like to be able to keep an eye on their children playing close by.

We have used a 'fold out' diagram to code the ground floor and upper floors separately. The codes cover the range of facade treatments particular to De Beauvoir.

The ranging behaviour of children, how they describe their play activity, is something we have been able to draw out of the walking tours and focus group work. The codes build on our knowledge gleaned from the children and the observations to suggest a way to value shared space from the perspective of a child.

BUILDINGS



Space One

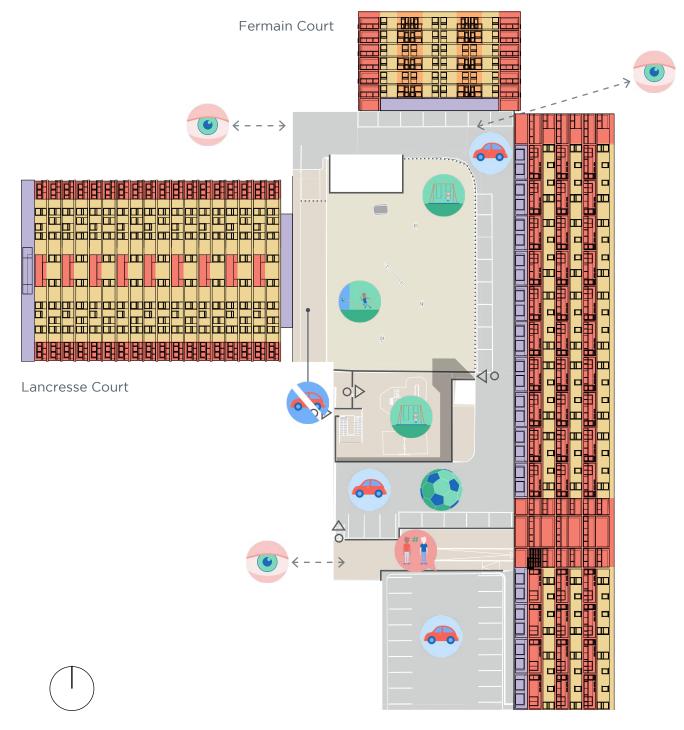


Figure 12: 'Fold out' analysis of Space One

Fermain Court

Figure 12 is a 'fold out' analysis of Space One, using the coding and colouring system described on the previous pages.

Space One was seen to have significantly more play and social activity than the other four spaces we studied in detail. In this diagram we seek to describe here the spatial factors that are contributing to this level of use, based on our conversations with the children and our assumptions of overlooking and the presence of other people.

The main play space is permeable, with no perimeter fence, it is adjacent to a car park/access road. The car park near the entrance to the centre of Fermain Court offers occasional football use. This is one of the larger spaces we studied and with potentially the greatest amount of space specifically allocated for play. It offers the greatest variety, having two play spaces and a carpark used for football, as well as good access to some adjacent spaces; the play deck and the footpath to the south of the play deck.

The quality of the equipment in the space is poor, however there is some opportunity for climbing on non play structures. The presence of play equipment is likely to send a positive signal about play, although the equipment appears to be suitable mainly for younger children. The children told us that some of the equipment is babyish and this might limit their use of the space. We noted small objects, twigs and cups, on the climbing frame, which indicates imaginative play is occurring.

Whilst not on or adjacent to a major through-route there is plenty of pedestrian circulation with residents accessing surrounding buildings or walking through to blocks beyond. The central entrance to Fermain Court is gated, but the upper decks are open to view, and the corner staircases are open to view. Fermain Court is six storeys high and along with Lancresse Court there exists the opportunity for children to call up or down, which they told us they do as part of their play, at least on the lower floors of the tower.

Type of space and equipment

Space one has two play areas. One grass and one with rubber surface. Both of these contain steel play equipment. The quality of equipment is poor.

The adjacent car parking area is not a through route so offer, when clear, space to play football.

Connection, circulation and sight lines

Space one is surrounded by pedestrian routes and access roads with parking. All blocks have security gates. Ground floors are inactive or garages.

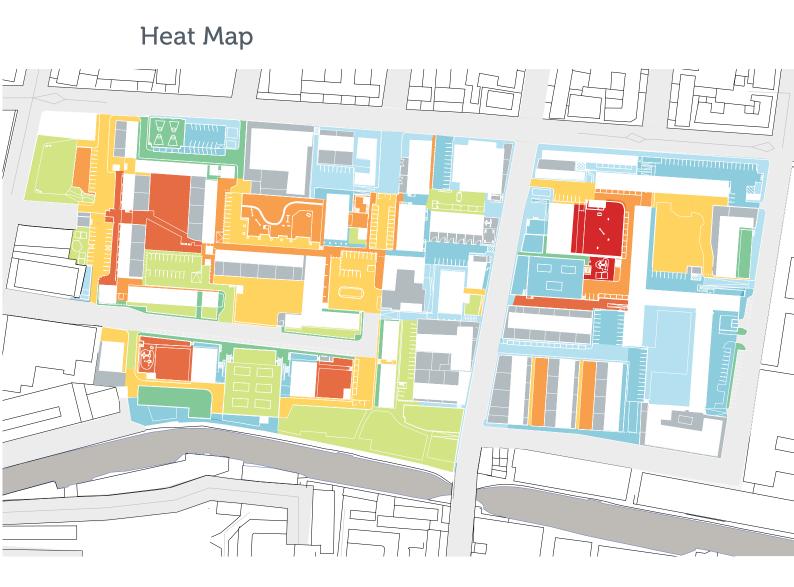
Access and overlooking from dwellings

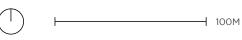
The grassed area to the north is fully permeable from all sides. Both spaces can be safely accessed from the tower block, otherwise from the lower blocks by crossing the access road or via the ramp, deck and stair (which is convoluted).

Both spaces are well overlooked by the deck access and staircases on the slab blocks and by the lower balconies on the tower blocks.

Vehicles

Space one is a variety of car free and access roads with parking.





	Accessible	Overlooked	Car Free	En route
1	Fully accessible	Fully overlooked	Car free	Fully en route
0.5	Partially accessible	Partially overlooked	Shared user surface	Diverted
0	In-accessible	Not overlooked	Car only	Isolated

In Housing Design for Community Life, ZCD Architects developed a ranking system for external spaces in residential developments. The ranking corresponded to the level of social use in that space based on the data we had gathered. One of these maps we called the 'Heat Map', it ranked each open space according to its accessibility from adjacent dwellings. We had discovered that more directly accessible spaces demonstrated higher levels of independent play and higher levels of social use than other less accessible spaces.

In this report we have developed the Heat Map to incorporate more complex spatial situations that occur in higher rise developments, including degrees of overlooking and whether it might be en route to building or another space. Again the ranking corresponds to levels of play and social use across the estate; space one is the 'warmest' with the highest level of use, space five the 'coldest'.

The heat map on the opposite page, scores each space in De Beauvoir according to four criteria:

- Accessibility: is the space directly or partially accessible from surrounding dwellings?
- Overlooking: is it fully or partially overlooked?
- Car free: is it car free, shared user surface or car parking?
- En route: is it en-route to another space?

The map also reveals close proximities of different types of spaces. Accessible and well overlooked spaces are often adjacent to very cut off spaces; there is a disjunction across the estate, which we think could be contributing to the low level of use for both play and social activities.

In general the edges are less accessible, these include the small park on the corner of Southgate Road and Downham Road, the MUGA on Downham Road and the larger park on the canal.

4	Fully accessible	
3.5	1	
3		
2.5		
2		
1.5		
1	~	
0.5	Not accessible	
0	Private space/rear gardens	
0	Roads only	

Networks and connections





- 100M



Space accessible by safe route

Space accessible by shared user surface

Space accessible by road crossing

- Safe route
- Shared user surface
- Road Crossing
- Turn in direction
 - Destination

The Heat Map reveals the disjunction of spaces across the estate. In the Network and Connections map, shown opposite, we draw connecting lines to show the shortest connection between each nearby space, representing direction of travel and sight lines.

We seek to visualise how the external spaces operate as a 'system' in order to examine how children are able to get about, meet friends and play. In doing so we are mapping an aspect of independent mobility, that which is integral part of their play experience, as our research has suggested.

The resulting map shows that overall there is network of mainly safe green routes around the estate, with a number of less safe shared user surface (for example across car parks and the main crossing over De Beauvoir Road). In general, routes are disjointed, with frequent changes in direction of travel and broken sight lines.

Fig 13, below, picks out one of the routes as an example; between spaces two and three. It demonstrates that in order for a child to successfully traverse between the two spaces, they need to make five changes in direction. Two of these are around an electrical substation located at the entrance to space three, one occurs at the entrance to the playground, two are changes in direction around the community centre. In addition, much of the route is poorly overlooked and none of it seems to offer any play opportunity along the way.

Drawing these connections we begin to describe what the resident children told us us; space three is cut off and difficult to access, therefore they rarely go there.

In carrying out this exercise we also see how problematic the spaces on the perimeter of the estate are (accessible only via car parks or adjacent perimeter pavement) or the sunken garden in the south east. These spaces are appear to be underused and in the case of the sunken garden have fallen into a state of severe neglect.

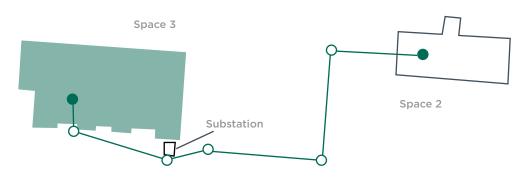


Fig 13: Connection between Space 2 and Space 3

Reflections

This chapter seeks to define and visualise a series of physical configurations which are essential to support children's play and independent mobility. It doing so it intends to draw out the design attributes that can effectively support the child-friendly city concept; absence of vehicles, overlooking, circulation, safe links and connections.

The meandering nature of play, the fact that for children it naturally occurs everywhere, has spatial implications that are widely misunderstood and overlooked in planning and built environment policy. This project has allowed us to unpick and understand the aspects of play within children's everyday lives and to focus on a local neighbourhood and the role that it might play, raising it to a more important level.

Designing for children through advocating for their play and well-being is an essential part of good neighbourhood design. Children use external space more than any other age groups, they are being encouraged to be more active and are the potential activators of spaces. This, means designing for children may be one of the most important drivers behind new proposals or improvements to existing local areas and their success in reality.

In the case of the De Beauvoir Estate, the heat map and the network and connections map show the estate in its entirety, considering each space's attributes and its relationship to others. The maps lay the ground for a new master-plan which could tackle negative aspects through targeted improvements to the public realm on the estate. In this case, attention should be played to the close connections between each of the spaces as well as subtle and more major changes to the public realm; opening up spaces so that they can be readily accessed, so that children can get about safely, see and be seen. Each of these moves could make a real difference to children and other residents' lives; if children can get about easily they will begin to animate some of the less well used parts of the estate, resulting overall in a safer neighbourhood.

This type of mapping and visualising spaces is transferable and scalable; it is our intention that it could lead to the development of rigorous child-friendly city design guidance. For example in the case of housing developments, with attention being paid to the shared aspects of developments, from the public realm to the front door, defining doorstep play, everyday freedom to move around and so on.

Such guidance has a duty to set the parameters that allow children to call on their friends, to play for extended periods, it should promote the presence of teenagers, giving them permission to play, to hang out and to be part of their community.

The work should go hand in hand with children and young peoples' involvement, access to services such as youth clubs and a more holistic and positive outlook from other members of the community. The presence of children and young people, their voices and their lives should be embedded in the practice of designing and creating communities, which is what we look at in the next chapter.

New ways of mapping

Play happens everywhere that children choose to go.

Allow for the meandering nature of play and independent mobility to occur.

Create safe links between external spaces.

Promote overlooking from dwellings.

Understand that equipment and signage gives permission to play.

Give teenagers permission to play and hang out.

Chapter 6

New ways of engaging children

We have used a range of methods in the project and tried to understand what is feasible, what works best and is most effective in gaining the views of children about their local area. We have had a particular interest in the degree to which the different methods enable us to get space-specific insights rather than general comments on children's lives.

In this section we bring together our findings on our fourth research question: What can we learn from the methods used about how best to engage children in discussions about their local neighbourhood?

General comments on methods

In general terms the methods performed to their expected strengths. The quantitative work providing numeric measures allowing us to characterise and compare the children within the group studies and with wider groups. The qualitative elements provided rich and detailed insights on the perceptions of the children.

While methods could be used in isolation there are independencies between them in this study and they all bring different elements to our work. The observational data and analysis characterised the estate and allowed us to make decisions on where to focus the subsequent work. The surveys on mobility, independence and play allowed us to characterise and gain a baseline on the children's behaviours. In a study covering a wider area and a larger population the surveys would take on a more important role. This could be in highlighting variations across the sample and pointing to areas to explore in more detail in qualitative work or in allowing temporal and spatial comparisons. The use of time and degree of freedom survey gave us details of children's activities across the whole day at home and elsewhere. The neighbourhood mapping and small group discussions we had based on the maps gave us rich insights to the lives of the children we were working with, but were less good for generating the space-specific information we were keen to obtain. The photographic work and walking tours provided detailed place-specific information and mechanisms to gain the views of individual children and compare and contrast the views of the group as a whole. The observation data and spacespecific insights allowed us to validate our mapping approaches and heat maps.

Engagement

Beyond the exploration on what mix of qualitative or quantitative methods to use and their pros and cons, a further important aspect to the methods is what approaches are best for engaging children. Most children engaged well with the project and showed a clear enthusiasm for doing so. They wanted to share their experiences of living in Hackney and places they live, play and move around in. The project revealed a clear desire of nearly all the children to express their views in a variety of ways with us. They could talk eloquently and intelligently about their local places and spaces and their experience of living in them. The project has given us a rich picture of the range of experiences the children have of living in Hackney and

\leftarrow StrongestWeakest \longrightarrow
PhotosMaps and discussionsCreative WritingSurveys
Walking toursPhoto detectivesSkills BuildingUse of time
Exhibition

Figure 13 Strength of children's engagement in methods

raised issues, many of which may not be immediately obvious to adults.

The multiple visits over the spring term allowed us to get to know the children and build a rapport with them, in a way that one-off data collection or an online survey would not have done. While we have only worked with a small group of children we have gained much more detailed insights than if we have visited a wider range of schools for one-off sessions.

In terms of engagement of children the photography element was a key component of the project. The children were excited as soon as we told them they were going to be given digital cameras and allowed to go out and take photos in the local area. They responded well to the respect and responsibility this suggested we placed in them. Going out on visits in the local area was also welcomed by the children along with the clear indication we wanted them to show us around and tell us what they thought of areas and to bring things to our attention – they felt in control. These activities happening early on in the project then allowed us return to do work in class with purpose and engagement from the children.

Figure 13 gives a rough scale of the degree of engagement we achieved for the various exercises. Of course we have only used a small number of methods and there are many other ways engagement could be achieved. Also while strength of engagement is important it is not the only factor to judge the methods on. For example, observation obviously ranks very low on engagement but the data it generated was of vital importance to the project and understanding the children's behaviours and use of space. However, building engagement early in project creates the opportunity to do less exciting but important elements of research later in a project.

Exhibition

The role of exhibition at the school and Mayor's visit to this was important in engagement. It provided a point of focus for the children and purpose to their work – 'what do you want to tell the Mayor at the exhibition?' was a useful and regular refrain from the facilitators. The exhibition itself allowed children, teachers and parents to gather and the children to talk to the adults about what they had been doing and their insights on the local area. The event was a very positive experience for children and adults alike, combining a sense of achievement, pride in the work of the children and a school community coming together to express its views and be listened to by the Mayor and Deputy Mayor.

Photography

The role of photography expanded as the project developed. Initially envisaged as a means to provide the children with a tangible output from the project, it became an important way of exploring perceptions and generating insights on the spaces we looked at. The photographs provided us with materials that we could use in the discussions and exercises in class discussing the local area. For example, asking children to pick photos to illustrate good, bad and indifferent examples of the external spaces rather than trying to describe them verbally. Stories, experiences and attitudes could be linked to specific images of spaces and probed to clarify understanding and communicate it more effectively.

Neighbourhood mapping and small group discussions

The maps the children drew of their local area, with the particular details these included, were useful prompts in the small group discussion of specific issues and details in the area. However, this quickly led on to a more general thematic discussion. This was less focused on specific locations, but gave a clear sense of the children's views, and diversity of experience, of living in Hackney, what they liked and their concerns. The conversations also stimulated a desire for many of the children to add detail, new items or annotations to their maps as we talked. The mapping and small group discussions was a good way to discuss their lived experiences and neighbourhoods, but unless all the children are from closely defined geographical area it is less good for probing specific spatial attributes of an area.

Listening to children

Children can talk eloquently and intelligently about their local area and their experience of living in it.

They are keen to give their views.

Approaches used need to be engaging to children.

Building rapport and trust between adults and children is vital to good engagement.

Reflections

Walking talking tours

The children went on the first tour of the estate early on in the project and were tasked with taking photos on this trip. These were reviewed and discussed in class and then followed by a further visit to canvass views on different spaces on the estate. An additional tour was done with children living on the estate as it was realised these children gave very different views to those unfamiliar with the estate. These walking tours and review of photos gave us detailed space-specific information on how the children use the spaces in the estate and what they like and dislike. We were also able to see how children use space to play. We could also see how the presence of twenty children arriving in a space transforms it!

We have commented on some aspects of the methods we have used to gather and analyse data about children's lives, use of space and the degree to which they engage children. By way of concluding reflections on engaging children below we pose a series of questions and comments below we think relevant to those planning work with children in relation to their mobility, independence and play and use of space in the urban environment.

How is the project framed, as research, for its users and for the children involved?

This project sits at the intersection of multiple research and policy domains and could have been framed in many different ways. Is the project about mobility, transport, independence, play, children's lives, planning, spatial design, urban environments communities and so on? There is no single perspective that is right – they all bring something to understanding, and hopefully improving, children's lives. Different framings have times and places when they will be more or less appropriate. Our focus has been particularly on children's lived experience in urban environments and how spatial configurations affect this. For the purpose of working with children we have framed much of the work through the concept of play. Play is a concept children instinctively understand, want to engage in and can talk about. It is a more meaningful framing than one that focuses on abstract principles of urban design which children are not skilled in talking about. However, our findings have been framed in terms of understanding children's lives and the spaces they use and ways of effectively communicating these to politicians, policymakers and urban development professionals.

How will you engage children?

If children's views on their local neighbourhood are to be obtained they need to be engaged in a process to do this. We have already highlighted some of the factors that resulted in good engagement in this project – the photography, the walking tours, the commitment to listening and respecting the children's perspectives, and regular sessions over an extended period allow the building of a rapport. These will not be possible in all circumstances and may not be appropriate to children of other ages or in different settings. There are many other ways of creating engagement. However having a plan for how a good quality engagement is to be obtained is critical to allowing children views to expressed and captured.

One factor that needs to be considered is the presence of adults known to the children during data collection. We were aiming to develop a relationship with the

children that allowed them to speak freely and without fear of judgment. Having adults or other authority figures such as teachers present, can impact on the children's responses and the dynamics of the research especially in the classroom environment.

How to ensure research quality?

Conducting research with children increases the normal challenges of conducting social research. Children's natural energy and exuberance and shorter attention spans make collecting high quality data more challenging. Sufficient experienced researchers and facilitators are needed to manage the process. Data collection exercises need to be planned carefully and run with plenty of time for children to complete tasks without undue pressure being put on them. Data checking needs to be done during and immediately following collection. Findings from different methods needs to be compared and triangulated in analysis.

Children can be imaginative in the answers they give verbally, or in surveys or writing. We were encouraged by the consistency we found in responses from different methods. The longer period of engagement allowed us to get to know the children and probe inconsistencies. Findings from surveys, maps, discussions and tours were complementary filling gaps the other methods left.

One critical finding in obtaining the views of children on the use of space is that we found children who know and don't know particular spaces have different views on it. The children who are familiar with spaces give answers which aligns with the rest of our analysis. Future work would benefit from ensuring a better geographical concentration of participants to allow a discussion of what it like to live in a particular street or estate and focus on the elements in those places.

How will spatially-specific findings be obtained and communicated?

We have worked with to children to understand their lives and the places they live. This is not just to document what their lives are like but to understand how the urban form they live in affects them. We are interested in how existing and new developments can be configured to enable children and communities to flourish. Space-specific insights are essential for this and any methods chosen need to be able to do link lived experience to specific spaces. As well as collecting spacespecific insights we have also spent considerable time in project developing new approaches to mapping to effectively communicate these insights. Effective, clear communication is necessary if findings are to be acted upon.

How will you deliver insight within available resources?

We considered recruiting participants directly from the De Beauvoir Estate by running an engagement process on the Estate. While desirable we felt the logistics and resource required to do this meant it was not feasible. We therefore used schools as a means to access the children. We also considered working with multiple schools, for example, going to a different school each week to collect data and build up a dataset from a wider population. However, we felt this wouldn't allow us to collect the rich qualitative data we were interested in which required a deeper engagement of children at one school.

We have also had the luxury of being able to experiment with a range of methods. Future projects may be more constrained and getting the most out of limited data collection and analysis resources is necessary. A cost effective first step for further work would be running a version of the survey we have used on mobility, independence and play to collect data from children across Hackney across all age groups.

How will you challenge your initial perceptions of a space?

As researchers and urban design professionals visiting the De Beauvoir Estate over the period of a year we have found our perception of it has changed markedly, and positively. We have got to know the estate intimately and observed children and adults moving around in it. We worked with children and explored their experience of the estate and walked around it with them. We have also found children who don't live on the estate aren't able to describe clearly how space is used and bring prejudices and preconceptions about it.

This raises questions about how urban development professionals charged with developing spaces can develop accurate understandings of the spaces they work on and the needs of children in them. Even with professional training and capacities how much time and what methods are needed to generate accurate perceptions and analysis of how a particular space works, or doesn't work for children? This question warrants further exploration. However, we believe the methods and findings presented in this report make a contribution to ensuring the needs of children are better incorporated into future developments.

Working with the children of De Beauvoir Primary School has been a rewarding and interesting experience. We have been able to spend time with the children and develop a rapport with them that has allowed us to gain detailed insights into their lives and their use of space. We have also been able to pilot a range of methods and understand what methods are best used to gain engagement and insights from children effectively. The process we have used has been time intensive. We realise not all projects will have the luxury of this time but hope the lessons from this work will enable others to run effective engagements with children.

New ways of engaging children

Adults need to commit to listening and respecting children's perspectives.

Urban design professionals need to use children's perspectives to develop their own understanding of how spaces work.

Space-specific insights need to be obtained and communicated if places are to be changed.

Chapter 7

Conclusions & Recommendations

In this project we have explored the external spaces of the De Beauvoir Estate in the London Borough of Hackney in extensive detail. We have sought to place the needs and perspectives of children at the heart of the project. We have framed the project using a rights-based approach to meeting children's need for a healthy local environment to grow up and develop in, and as part of this, to have ready access to outdoor play. We have used and experimented with a wide range of methods to explore our research questions and core themes:

- Understanding children
- Understanding spaces
- New ways of mapping
- New ways of engaging children

Our concluding comments and recommendations on these themes are presented in the following pages.

Understanding children

The work we have carried out and lessons learned suggest there are huge benefits to be gained from allowing children the time and space to talk about their lives. Benefits that built environment professionals can learn from and that could successfully be employed to improve policy, participation and practice, not only for children but for other age groups in the community.

In our research, we have learned that children themselves are well placed to talk about their own needs and that we must learn how to listen to their voices, to advocate for them and to articulate this into better policy, guidelines and practice.

We have discovered that play offers independence, something children seek out and enjoy and that professionals ought to respond to this, providing layouts that support their independence and freedom, offering them more when its possible to do so, rather than less.

We have found that beyond spatial arrangements, children are acutely sensitive and affected by adults' behaviours in their daily lives, both directly and indirectly.

There is a need to review attitudes within organisations who deliver new housing, or maintain or manage existing communities. By conveying children's needs and wishes in a structured manner to these and other providers, we have an opportunity to enact systemic change and deliver better designed services and places for children.

Alongside this are the actions and behaviour of other community members, residents and neigbours of children and young people in their local area. We recognise that the age group we have worked with is at the very bottom of the hierarchy in use of public space. However, communities are a potential support system for a child growing up and addressing this problem. Improved governance, practice and communication can rebalance the situation.

Children's play

Despite some of the negative aspects of children's lives that we uncovered in this project, it is important to emphasise that most of the children we spoke to describe their play as 'fantastic'. Indeed most of the children we spoke to also play outside, often close to home in small local areas on a day to day basis. Some are venturing further, often to call on friends to play, an intrinsic part of their outdoor play experience.

There is a common narrative that children no longer play out. Certainly they do so less than their parents did, but adopting a defeatist tone is unhelpful and prevents detailed investigation which reveals a huge variance in levels of play between different communities and neighbourhoods, as well as the richness and variety of many children's everyday lives.

Notwithstanding the enduring nature of children's play, we note that some of them do not get out as much as they would like to. This applies to both sexes but there is a particular issue with girls. We discovered that they are less likely to be allowed out to call on friends on their own. Also when children in this age group do get access to space, girls are displaced by their male peers. Our observational research corroborated this; we saw very few girls playing out in the spaces that we studied.

As with the research carried out in Wrexham (Wrexham 2016) under the play sufficiency duty, we discovered that giving children space and time to talk

about play in relation to their local environment, yielded a wealth of information that challenged commonly held norms. For example, the notion that parks and playgrounds meets their outdoor play needs, a routinely ignored concept highlighted by play experts (Lester et al 2010, Wheway et al 1997). Children seek to play in a variety of spaces, often with siblings and children from other age groups. Focusing on providing segregated play areas or playgrounds for children and young people is likely to be working against rather than with their needs.

We also discovered in our observational work, that teenagers are spending very little time outside, younger children. This finding would benefit from more research; for example using similar techniques as we did here, with focus group and discussion work. Whilst it might seem that teenagers are not concerned with playing in the same way as younger children, other studies have revealed that the concepts carry across from childhood to teenage years; freedom to be outside with friends and get about safely is critical for this age group too.

Independence

Supporting play is also a way of supporting children's growing independence. Children's independent mobility (Shaw et al 2015) is a term increasingly used in planning policy to represent children's ability to safely get around their local neighbourhood, often as adults do from A to B. We suggest their independent mobility is not distinct from play and needs to be conceptualised in a broader sense. Neither should independence just be framed as a developmental outcome; leading to healthy and productive adulthood and working life. Independence is something that children actively seek as part of the daily lives, for example, at least a third of the children we studied would like to be able to cycle to school, but are unable to do so.

Although we introduced the topic of play with them in relation to their school playtime, this aspect was beyond the scope of our research. What that moment did give was an insight into their lives and pointed to the tension between supported or promoted play and their ability to play freely. In wanting the adults to be absent from their playtime outside, they were sending a clear message about what they wanted for the time they spend outside the classroom, with their school friends.

Again and again children asked for more space or spaces to play in. They talked with pleasure about playing out and want to be able to do it more. Whilst this may suggest they have an infinite level of expectation, work in Wrexham suggests there is a level of satisfaction that children reach where they have 'enough' play, only wanting minor qualitative changes to play opportunities. (Wrexham 2016).

We did not find this to be the case in our study unfortunately, although we do not infer from this that the situation will be the same in other neighbourhoods across the borough or the capital. What our research suggests is that efforts should be focused on raising the level of and opportunities for play and independence for the children we spoke to, and that further work should be carried out on establishing these needs across London.

Acutely sensitive of their external environment

Despite the generally positive attitude toward their play experiences, we discovered that the children are acutely sensitive to the negative aspects of their physical environment. They talked about poor play equipment, some of it too babyish; they

talked about dogs; fear of getting lost, strangers and bullying. Girls talked about boys dominating the spaces they use for play.

There are a number of 'no ball games' signs throughout the estate, very common in housing estates, these not only aim to restrict certain play but in the absence of any positive signs, project a message that play is not always well received and even anti social.

The children we spoke to were less likely to be scared of traffic than by the notion of strangers or getting lost, but they do describe how cars and vans can restrict their play. Parked vehicles will take up space and also could be damaged by ball games, however moving cars can hit them and they register this and regulate their play accordingly. It appears that De Beauvoir Estate has lower than average car ownership, coupled with a lack of through routes on the estate, there is a feeling of safety that is allowing children to get about and play in these areas, to some extent. However this should not be relied on and given other research we have carried out on housing developments, we would caution the use of shared surface streets for providing children with safe places to play. More often than not these are unsuccessful and subject to anti social car parking and consequent reduced social use of space (Bornat 2016).

Adult behaviour

Children are alert and sensitive to adult behaviour and behaviours related to alcohol and drugs around them, not only being told off for playing or making a noise, but they also talked about noise that kept them awake at night and about adults on the street with mental health problems.

During the small resident walking tour it was evident that children are alert to adult reaction to their behaviour too; we encouraged the group of four children to show us where they liked to play and they took us to roof of a boiler house. We stayed close and gave them permission to climb and explain how they used the roof, but they kept half an eye on the adults nearby, conscious that they might get in trouble for playing where they were not allowed. During the same tour, they revealed which neighbour regularly told them off, they all knew his flat number.

Permission for children to play relies on both physical factors, such as play equipment and positive signage, as well as support from the community around them; this is an issue for estate managers and local authorities to tackle in order to turn around the negative and anti social culture that so often prevails when it comes to describing children and young people's presence in their local area.

Planning policy and practice

Traditional efforts to bring children and young people's voices into the planning process often rely on their feelings about the place itself and what changes they would like to see, rather than their experiences and even less so their sense of well-being and satisfaction. Well-being is seen as difficult to measure and as it is subjective (based on the individual's own experience) difficult to use comparatively.

Consultation on proposals expect lay people to react to plans, models or descriptions when they may not have direct experience of living in the area in question and so become speculative and propositional.

The success, or not, of more active co-design and engagement, relies on individuals having a degree of agency and this can be challenging in the face of the complex systems and requirements that exist in urban neighbourhoods and developments.

In London and the south east the demand for housing is creating developments of greater densities and heights, putting pressure on external spaces to achieve a variety of outcomes; from green spaces that act as the 'lungs' of the city, places for calm and quiet contemplation, views of trees and so on to Healthy Streets which seek to resolve exercise and transport requirements for the population. These outcomes can often be seen to be in conflict with the needs of children; their meandering movements, levels of noise and their tendency to hang out in groups when they get older, for example.

Health experts warn that children need at least an hour of activity a day, which is difficult to achieve through their walk to school and playtimes. After school, close to home in their local neighbourhoods, these are the spaces that need to be readily available, but where space and permission is contested, children often lose out.

Understanding spaces

During the observational research stage of the project we saw that children don't always play in ways that adults might intend. Indeed the estate manager described to us how they would climb over roofs and in places not designated for play. We heard from the children themselves that they love to climb and explore; they showed us the places they used and described parkour, hide and seek and knock down ginger.

Our researchers saw football games played in the car park next to the larger playground. During the walking tour the boys explained how the space was well set up for football games, but had been recently taken over by cars and vans, halting its use.

On that same tour we heard how the children explore more difficult to reach places as part of their play; once or twice they had ventured into the car park under the play deck to retrieve a ball, or just to see what was there. One of the boys had climbed over a high fence to reach the sunken garden in the south east corner of the estate, without realising there was an entrance further on. Two of the boys had climbed around a security fence at first floor level, into a housing block, in order to find a place to hide in their game.

The children are curious, with an appetite for risk, constantly monitoring and reevaluating situations and adjusting their behaviour to suit as Tim Gill suggests (Gill 2007). They use space differently to adults, in ways that challenge preconceptions and conventions. In doing so, they are not seeking to deliberately break rules or be anti social, rather to enjoy their play to its fullest.

When we talk to children about how they use space we should aim to think from their perspective and not immediately fall back on more adult constructs of play. We should try to fit questions into a narrative, thinking more dynamically, beginning with open questions such as 'Where do you go and what sort of things do you do?' or 'Who do you spend time with'.

A deterministic approach should be avoided, for example asking 'What kind of equipment do you want?' or 'What games can't you play?'. These questions reduce the nature of play to singular activities and locations and will force answers that could be highly subjective and subject to change.

We also found that away from the places they explore and play it is difficult for children to articulate their potential behaviour within our adults terms. Their almost limitless suggestions about how they could use space points towards their inventiveness and resilience, but is abstract in its understanding. The class children saw great potential in some spaces that we, and their resident counterparts, knew were failing as play space.

When we as professionals think about spaces, we need to start with open minds, allowing children to lead us, but not expecting them to have all the answers. We may be uncomfortable with what they tell us, but this should not prevent us from seeking to understand more fully their spatial experiences as distinct from our own.

As professionals when we look at spaces in local neighbourhoods we can start by looking for signs of play; discarded toys and objects, worn areas around equipment, chalk and different kinds of graffiti, all reveal the way children are choosing to play in the spaces.

Certain spatial criteria supports play and social use

In terms of spatial configuration, we have found that play happens when spaces are accessible, overlooked, vehicle free and on the way to another place or space. These criteria, which we have observed in other neighbourhoods across the country, make a tangible and measurable difference to the degree in which children and other age groups use a space.

On the De Beauvoir Estate, the most well used space was directly accessible and within site of a large number of homes, both from balconies but also more frequently used decks or upper level walkways. By the children, it was not the space that was considered 'the best', it did not have good quality play equipment, nor was it very well cared for. However it was observed to be used significantly more than any other space we looked at and for the longest periods of time.

Children who live on the estate and play in this space regularly, described how they were able to call down or call up to friends, a crucial part of their play experience. It was far easier for the boy on the second floor, whilst the girl on the seventh floor said she was not able to do so. The two resident boys also talked about how they were able to get about the estate to call on friends.

Direct access and the overlooking of play space from dwellings is not a specific requirement in planning policy. Distance and area of play space are the main criteria, but are on their own ineffective measurements if children find spaces difficult to reach or disconnected from their nearby home.

In addition, security measures are often put in place, such as controlled entrances, fences and gates, that are real barriers to children and restrict their everyday independence in both intentional and unintentional ways.

Our observational work and the children's descriptions lead us to believe that the proximity and access to spaces are likely to be the most critical elements for children. Spaces that are cut off, out of site and difficult to access, not only will not be well used but will eventually be used for anti social and criminal activities.

Getting about - connections between spaces is key

If we start by thinking about the movement of children from home to external spaces the next step is to extend this to adjacent spaces, looking at how easy it is for children to get about from one place to another.

We have observed, as have many other studies, that children play in an apparently random, meandering manner. In contrast to adults' clear line of movement from A to B, they will tend to move in what Wheway describes as 'safe loops' (Wheway et al 1997), often on bicycle or scooter.

Whilst the routes on De Beauvoir are often, but not always, car free, they do not make good connections between each of the open spaces; they are convoluted, disjointed and poorly overlooked.

If, as we believe, children are seeking to access a multitude of spaces to support their play then clearly they need to be able to get about safely and easily. We suggest that attention be given to these 'links'.

We caution a solution that simply encourages movement through the estate from

one side to another, as our data suggests increased movement through a space in itself may not be linked to increased social use.

Instead we would suggest building on the 'defensible' nature of the spaces and forming stronger connections between them; clear sight-lines and direct access which children could safely navigate. Routes through the estate should work alongside this and not seek to interrupt, with either pedestrian or cyclists, the playable and safe nature that the open spaces could offer.

'Play on the way' measures could also be employed to improve these routes and the through roads, sending a signal to both children, adults, cars and other vehicles that play is acceptable and indeed encouraged.

New ways of mapping

We recognise that during consultation and participatory work, expecting children to comprehend and react to plans, models or descriptions of new places and engage with professionals who are familiar with what is essentially an abstract form of communication is unfair and unrealistic. However, we believe it is important to attempt to do so and in addition avoid reaching speculative and propositional conclusions by over simplifying the urban situation.

By proposing new ways of mapping spaces we are advocating for children, seeking to better visualise how they, a significant minority group in society, use space in their local neighbourhood. We aim for these maps to clearly communicate this use to a broad section of users and stakeholders.

If used alongside and corroborated by observational research, we believe it can offer a new tool for analysing social value, better at predicting, planning and evaluating a local area.

Understanding the buildings around us

We speculate that the use of a space is influenced both by the space itself, the surrounding buildings and the support and permission for children to play there. We carried out skills building exercises in an attempt to introduce the more complex spatial aspects to the children; we wished them to pay attention to the edge of the space they might be looking at, as well as the activities they could do there. We tested this first in the school playground, asking them to categorise the perimeter walls and buildings overlooking the play space in their 'playground detective' exercise.

We found they had the least interest in this aspect, suggesting children are likely to be unaware of their playground neighbours. In other words, if they do not directly interact with the people who overlook their play space or are made aware of their complaints, than they have no reason to conceptualise these buildings and see them as impacting on their enjoyment of their play.

However, during the walking tours it became clear that they very are sensitive to the buildings around them, once outside the protective environment of the school. For example when they were in link space A, a wide footpath in front of a short row of maisonettes they saw this as unsuitable space for play; expecting to be told off by the residents.

The resident children thought otherwise and were comfortable playing here, they had had no problem with these neighbours and even suggested they were rather friendly. During our observational studies we saw children playing here, running or playing football, for example.

What seems clear is that children will have a relationship of some sort with their local neighbours, in certain situations, this gives them the confidence and permission that it is safe to be outside and play. No knowledge of the inhabitants is likely to lead to children to respond in a more cautious way.

Understanding complex urban systems

The De Beauvoir Estate offers the opportunity to study a variety of spaces, framed by a variety of buildings; from short rows of terraced houses, to more complex arrangements of tower blocks, slab blocks, balconies, deck access, garages, and entrances. By comparing five spaces we are able to draw out different conditions, assessing these against different levels of play and social use.

By mapping these spaces we seek to visualise social use of space, specifically but not exclusively by children and young people. We also wish to break down what is a complex urban experience into a clear and simple expression of space and human interaction.

We do this by examining the way in which the buildings frame the external spaces, with their associated circulation and security treatments. In doing so we represent the presence of other people, their proximity and potential providers of safety and support; from neighbours or tradesmen moving through the spaces to parents and carers keeping a watchful eye from an upper floor.

Codifying spaces

Our system of codifying the spaces and surrounding buildings is an attempt at a simple communication of a three dimensional space. It is deliberately visual and begins a dialogue of classification that could be adapted to suit various different contexts. It emphasises children's use of space and brings to life their daily activities in terms of their own play and the relationship of the people who occupy the buildings around them. We recognise that a hierarchy of use will come about in any situation and suggest that this is also part of the classification and discussion that can ensue from this process. For example, we give priority to car free space, when categorising play and social use as we know both moving and parked vehicles restrict children's play (see also Bornat 2016). We also suggest that the benefit of passive surveillance from residential accommodation may be greater from an active circulation route, such as deck access, over a balcony which is less frequently used. Similarly habitable rooms offer greater potential for overlooking than non habitable rooms, such as bathrooms.

We have developed a codification system in this research that brings together the aspects of the space that we believe are most important to support children's play. This system is a potentially useful way of communicating the complex interplay of the space and buildings around it. We know that these buildings are important to the successful use of space, or not, and we have developed a hierarchy for representing each facade, relevant to De Beauvoir Estate, but equally transferable elsewhere.

The coding system is scaleable and transferable and can form an introduction to design guidance, setting up a spatial language to support the child-friendly city concept.

Broadening it to the wider area: mapping a system and measuring social value

If codifying and comprehending individual spaces is the first step in a detailed visual examination and a dialogue between residents and others, then the next step is to increase the complexity and conceptualise the public realm as a series of these spaces, well connected and working as an effective system. In this way we are reacting to children's behaviour, who we know use space differently, setting out to achieve a neighbourhood level of child-friendly design which will best support their need for play. In general these should seek to extend beyond the physical boundary

of a development or neighbourhood, so that the edges have a similar level of attention to the centre.

We recognise this might challenge conventional spatial planning systems, often concerned with efficient pedestrian and cycle movement and not focused on the meandering nature of play. We suggest a more nuanced approach to public realm and urban design at a local level, reemphasising the importance of 'defensible' space alongside connectivity. This might require some fragmentation to the popular linear street pattern; setting up spaces for social use and play and ensuring these are well connected to each other.

It also, importantly, challenges notions of public and 'semi public' spaces. The latter, commonly shared courtyards in higher density developments are becoming increasingly gated, which is problematic for children who are moving around seeking friends and other children to play with, needing spaces that support their play across different age ranges.

If instead we task the public realm with being a combined system of public and defensible spaces, gating for child safety rather than security of property, we will enable children to freely access space in the way they see fit. Could this, potentially radical concept, herald a new form of placemaking; by starting with some realignment of principles aiming to deliver 'spatial justice' for children?

New ways of engaging children

The work that was carried out on this project, which included significant input from the children and support from the school, was not linked to any potential development project. From the outset we made it clear that we were gaining insights that could influence policy and practice, but understand that this a very abstract concept for children to comprehend. The photography exhibition attended by the Mayor and Deputy Mayor of Hackney gave the children a focus and an opportunity to express what they had been working on throughout the project. It also gave the Mayor an occasion to announce his commitment to Hackney becoming a child-friendly borough, a not too insignificant achievement.

We set out to engage the 9 and 10 year old children in Year 5 in the abstract and complex issues of urban planning and we are grateful for the eight weeks of attention they gave us and the hard work this entailed. We deliberately tested a number of techniques, alongside our previous research methodology which is observational work, mapping and surveys, as carried out by ZCD Architects and Policy Studies Institute respectively.

This 'triangulation' of spatial desktop analysis, actual use and people's (in this case children's) perceptions, set a high standard for our research and allowed us to test, compare and corroborate our findings.

Throughout the eight weeks that we worked with the children, as a team of four or five, we were provided with a variety of outputs; photographs, discussions, drawings and survey data. We have assessed the various exercises against their various merits and suggest how future projects could benefit from our research and approach, tailoring and developing them to address different contexts and work with different age groups. Involvement of children and young people in the planning of their local neighbourhoods is essential and our work suggests there are new ways of engaging them in built environment practice that could better meet their needs and provide tangible benefits to their lives.

From a policy perspective, through to conception and implementation of new schemes, from small scale change to large complex developments; their input should be carefully structured in order for their voices to be clearly heard and their needs to be acted on. At any one of these stages we believe that children and young people can make a meaningful contribution to these planning and development processes, and that to a certain extent, they are capable of understanding some of the complex urban systems that support them.

Our methods placed the lived experience of the children we spoke to at the centre of what we did, which had the immediate effect of giving their lives real value. We advocate for this approach, in order to focus professionals and the community from the outset; agreeing intended outcomes for development proposals or small scale improvements in a local area.

Children and young people can be a catalyst for change, by drawing on their knowledge and expertise of a local area and widening that out to bring in other stakeholders and decision makers, we can set the scene for child-friendly neighbourhoods or child-friendly cities that can benefit all age groups in their daily lives. Safe spaces that are good for social use, for neighbours to meet others and that foster community ties can potentially be conceived in this way and are likely to have positive lasting effects.

Expert versus non expert

It is difficult for children and indeed other age groups to perceive the impact surrounding buildings may have on a space or to predict how a space might be used if they do not have prior knowledge of it. On the other hand, the children who live locally were able to talk far more accurately about how the various spaces were being used, through describing their own play and experiences there. They could go on to reveal more about the space than we could glean through our extensive observation period.

The expertise of children, to be able to bring to life a place, through their own stories and descriptions is potentially invaluable to a team of professionals, who should be experts themselves in the design and delivery, including through, in part, successful engagement of a community. By using play as the proxy, an activity central to all children's lives, our research suggests that we can target the concept of children's well-being and potentially other age groups as well.

This pairing of expertise and the nuturing of a rich engagement process should focus on the specific lived experiences rather than the abstract. Engagement should be tailored to suit a situation, depending on whether it is a new or existing community. In both cases this offers the potential to think beyond the ownership or site boundary line into surrounding communities to speculate what benefits changes might bring, mitigate against negative impacts and resolve existing problems.

Creative input

We discovered that photography is a very helpful tool for engaging the children quickly. There was a tangible level of excitement when we explained they would be given cameras. They continued with their enthusiasm, taking a great number of photographs, which went from expansive to forensic and together provided a comprehensive collection we were able to draw on during later discussions with them.

This rich resource provided us with a catalogue that supported structured exercises, where the children were able to be more analytical about the spaces they were reviewing. It was in these moments that we drew out the details of their play and use of spaces, the problems and the versatility of their games. They revealed both resilience and fragility as well as humour and drama. This challenged our preconceptions and broadened our views on how children think when they are faced with a series of opportunities, such as an expanse of grass to play on, or threats such as roads, windows and parked cars.

Walking tours

Walking tours and visits to spaces provided the strongest responses from the children and are the 'gold standard' in terms of discussions with them. Both whole class and small group sizes worked well; we used a more structured and supported approach to the former and a more relaxed, child led approach to the latter.

The walking tours with children who lived on the estate revealed the true nature of play; the way in which children use available space to satisfy their play needs as well the restrictions that are placed on them.

The success, or not, of more active co-design and engagement, relies on individuals

having a degree of agency and this can be challenging in the face of the complex systems and requirements that exist in urban neighbourhoods and developments.

Concluding thoughts and next steps

This report gave the opportunity to look in great detail at the lives of a small group of children growing up in Hackney. We have used our expertise to examine spatial planning policy, urban design and built environment features to discuss how these may be having an impact on their lives, taking children with us on our journey of discovery.

The research and findings offer Hackney Council real evidence to help move forward with their child-friendly borough commitment. With this they are potentially at the forefront in addressing the physical aspects of the UNCRC rights and the UNICEF initiative.

New policies, design guidance and practice can now potentially be developed using some of the framing principles, practical examples and spatial understanding that this report provides.

Whilst highly contextual, the report's approach is replicable and scaleable giving it the potential to be developed with other local authorities, housing management and regeneration teams across London and other cities in the UK.

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About the authors

Dinah Bornat is a Mayor's Design Advocate for the Mayor of London, where her role involves championing design for children and young people. She is a Design Review Panel member for Harrow and a member of the Hackney Estate Regeneration Design Advice Group. She has taught architecture to undergraduate and post graduate students for over 10 years and is a fellow of the RSA.

Dinah's research into residents' use of external spaces in housing developments means she is regularly asked to contribute to publications and participate in events associated with health and well-being, social use of space and play. She has worked with Hackney Council, Islington Council Harrow Council, A New Direction, Urban Design London and Arup Associates amongst others.

Ben Shaw is a freelance researcher on environmental policy issues and works part time at the University of Surrey as Deputy Director of the ESRC-funded Centre for Evaluation of Complexity Across the Nexus (CECAN). He was Director of Policy Studies Institute at University of Westminster until March 2018, where he developed this project building on his and PSI's previous work on children and cities. This included the research summarised in the reports 'Children's Independent Mobility: an international comparison and recommendations for action' (2015) and 'Children's independent mobility: a comparative study in England and Germany (1971-2010)' (2013).

Other support

Tom Watson who worked on this project was formerly a Research Fellow at Policy Studies Institute. He has a background in energy systems research and is also interested in cycling and creating liveable cities. He is now at the Energy Networks Association.

Holly Weir, who is a PhD Researcher at the University of Westminster. Holly's research is focused on children in built-environment and through her research she plans to explore the impact that a child's neighbourhood can have on children's health and well-being.

This report, written and researched by Dinah Bornat and Ben Shaw and published by ZCD Architects looks in detail at an estate in East London. It involves intensive engagement with local children setting it firmly in the context of their lives. It includes evidence, principles, practical advice and urban design. It provides a replicable and scaleable approach aimed at achieving the built environment aspects of the child-friendly city initiative.

