Shared Spaces, Shared Lives?

Striving for Mixed Communities in Stratford's East Village

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Sophie Wilson

5666341

s.e.wilson@students.uu.nl

Universiteit Utrecht

Abstract

Neighbourhood mixing, particularly on the basis of housing tenure, has received a resurgence of interest in policy across the UK. This is enacted with the understanding that social mixing will interrupt the mechanisms driving negative neighbourhood effects in areas of concentrated disadvantage, and positively influence personal outcomes of lower socio-economic status residents.

In order for the benefits of mixed neighbourhoods to be realised, interaction between groups is required. There has been much research on the importance of formal meeting opportunities in the community, such as schools or libraries. However, this research focuses on the potential role of informal meeting opportunities, such as the shared spaces of the housing development, in facilitating interactions between neighbours. This research uses a case-study approach, focusing on shared entrances, parks, and semi-private courtyards in Stratford's East Village in London. The site was selected as a relatively new development, lacking in historical legacy or effect of enforced change to the neighbourhood, with a strong mix of housing tenures: 50% are private rented, 25% are affordable homes, and 25% are social rented. A mixture of observational data and the analysis of 17 semi-structured interviews with residents are used to investigate the interactions between different socio-economic groups within informal shared spaces in this mixed-tenure development. The spaces which are available; how residents use the spaces and for what purpose; what kinds of interactions take place between residents; the influence this has on local connections; and the extent to which this impacts residents' sense of community are all examined.

The main findings are as follows: it was found that the main use for the shared spaces was to pass through to get to other facilities, although children did spend more time in the parks. There exist some tensions over the expected users of the main park, with some residents feeling unwelcome due to its location. In contrast, the courtyards were preferred, and felt more equal. When events are held in the held, this gathers a greater, and more diverse crowd. Of the interactions which did take place, they are mostly light exchanges which do not necessarily lead to more local contacts. However, the use of the spaces and high levels of interactions were found to be positively linked to residents' stronger sense of community.

There are some concerns over the generalisability of results, in relation to the potential uniqueness of the case-study used and the limitations posed by the interview sample. However, it is concluded that this should not detract overall from the addition this results makes to current understanding. Directions for future research involving more longitudinal studies and the connection to more formal meeting opportunities are advised. Finally, policy recommendations are made in light of these results, relating to the multi-functionality of spaces and a concern for their location in relation to other amenities.

Keywords: *social mixing, mixed tenure, informal meeting opportunities, social interactions, sense of community*

Preface

Dear reader,

This thesis represents the completion of my Urban Geography masters, a course which I took the plunge to move overseas to complete, and which has certainly been well worth the move.

The topic of provision of social housing has greatly interested me since my first undergraduate modules on city development five years ago: I am grateful I have now had the opportunity, through this research, to explore this more fully in the context of mixed housing developments and building community. Aside from stressful weeks occasionally leading me to question why I decided to return to studying, I have greatly enjoyed researching and writing this thesis, and I am glad to see my work coming together at last in its complete form.

Thanks is owed to Dr Gerald Mollenhorst for his supervision and comments on this project, and to the participants who so enthusiastically gave me a window into their lives. Finally, a big thank you goes to my peers who quickly became my friends over this year, and of course to my family back home who have supported me whilst I went on this adventure. This year has passed in the blink of an eye, and I have no doubt I will be unable to stay away from the Netherlands or Utrecht for long.

I hope this final project presents an enjoyable read to you, the reader.

Sophie Wilson

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1. Introduction

Housing policy on creating 'mixed', or 'balanced' communities is not a new concept, but has seen a resurgence in the UK context following the riots across northern England in 2001, which were largely attributed to the concentration of social housing present in the affected towns (Van Kempen and Bolt, 2012). Despite this attention, it can be difficult to disentangle along what lines government wish to create this mixing; ethnic, income, tenure, and household structure are all possibilities, with increased confusion arising from the vagueness with which levels of appropriate mixing are laid out (Van Kempen and Bolt, 2012). In the UK context, policy largely focuses on creating mixed communities along the lines of household tenure, used as a proxy for socio-economic status (Van Eijk, 2013), and it is therefore socio-economic mixing which provides the focus for this paper. The aims for mixing are based on the assumption that concentration of deprivation produces negative externalities in the form of neighbourhood effects, whilst social mixing is beneficial as access to social, institutional, and structural resources are improved.

However, as we will look at, contact is required between residents of different groups in order for many of these proposed benefits to be realised (Van Kempen and Bolt, 2009): it is therefore interesting to investigate the ways in which people interact in the everyday spaces they share. This research focuses on residents' use and experience of semi-private and shared public spaces within the East Village housing development in Stratford, London. Specifically, it investigates the social connections built in these spaces, and the residents' sense of community. The development has been selected due to the mixture of tenure types, and by association the mixture of socio-economic classes of residents.

This introduction firstly gives an overview of the research area, which is expanded upon in the literature review, then grounds this topic in its scientific and societal relevance. The research questions are delineated next, and finally the structure of the remainder of this paper is given.

1.1 The Research Area

A condensed rationalisation for the research topic has been given, but we now look at the area in more detail, identifying the existing theories and the gaps which remain in understanding.

Building from the understanding of the independent negative influence of the neighbourhood on life outcomes, increasing numbers of policies aimed at creating socially mixed neighbourhoods have been introduced. Neighbourhood effects are the impact that neighbourhood characteristics, such as deprivation, have on individuals' life outcomes, over and above the influence of any individual or household level characteristics (Rankin and Quane, 2002). Acting through various mechanisms, they are largely attributed to the lower levels of resources and social capital in these neighbourhoods constraining the role models available for children, job opportunities individuals have access to, and the access to an equal quality of education. The idea of social mixing policies is to break the cycle of negative externalities of the neighbourhood and create the opportunity for more equal life outcomes in terms of personal development, health, and educational achievements (Wood, 2009). It is for these reasons that social mixing on the scale of the street or the housing block is central to New Urbanist design (Cabrera and Najarian, 2013). In order for many of these expected benefits to be realised, interaction between different groups is required to expand the networks and social capital of residents of lower socio-economic status.

However, spatial proximity does not necessarily lead to interaction, with the risk that mixing will result in residents living parallel lives or even increasing tensions between groups (Van Gent et al, 2016; Valentine, 2013). As such, there is much current literature on the importance of various local facilities and structured activity in bridging different social groups and increasing tolerance (Amin, 2002; Audunson, 2005, Feld, 1981). These spaces act as formal meeting opportunities, spaces which are visited with a certain purpose and use, such as public libraries and schools.

However, the role of shared spaces within housing developments in providing informal meeting opportunities for residents of different groups should not be overlooked. The everyday encounters which take place there can aid in improving public familiarity through providing residents with enough information and knowledge of their neighbours to assess them in relation to themselves (Van Eijk and Engbersen, 2011). It is the use and experience of these informal shared spaces which this research focuses on, investigating the interactions which take place there and the ways in which these spaces can facilitate the expected benefits to residents of residing in a mixed neighbourhood.

1.2 Scientific Relevance

In addition to streets and local facilities, shared spaces within housing developments deserve attention as potential sites of informal meeting opportunities. The scale of shared informal meeting spaces is considered to be of particular relevance at a time when many governments, including the UK, are redeveloping estates with an explicit aim of introducing more mixing in terms of social, private rented, and 'affordable' home ownership.

This is an area which has received critique for promoting environmental determinism, yet Camina and Wood (2009) conclude that there is certainly a place for acknowledging the role of physical planning and other research at this scale has shown the impact of this scale (Van Eijk and Engbersen, 2011). Further, there has been concern that the 'light' social interactions, the brief unplanned encounters between individuals, which take place in these spaces are overstated and not necessarily equated with any meaningful exchange or positive change (Valentine, 2013). However, this research will add to current literature by not only mapping the uses and types of interactions which take place, but investigating resident's experience of the spaces, their reasoning for using them the way they do, and the extent to which these interactions feed into a stronger sense of community. Ultimately, it is these social contacts which can provide the social capital required to break down negative neighbourhood effects and improve the social order of communities. A number of different types of spaces are explored, including shared entrances, public parks, and semi-private courtyards.

Although much research focuses on the impact of ethnic concentration and segregation, it is considered that these patterns can be at least partially ascribed to concentrations of poverty and deprivation. As such, socio-economic mixing and ethnic mixing are very much interlinked, and this research will draw from theories concerning both types of mixing before focusing in on socio-economic mix.

1.3 Societal Relevance

It is also important to ground this research topic in terms of its societal relevance. As was stated previously, there is a focus in housing policy on creating 'mixed' or 'balanced' neighbourhoods, with policy in the UK particularly focusing on tenure diversity as a proxy for creating socio-economically mixed neighbourhoods. The stated aim of this is to create benefits for residents who would otherwise

suffer from negative neighbourhood effects in areas where deprivation was concentrated. However, in order for the mixing to create the positive effects outlined previously, there needs to be interaction between groups. It is considered that broadening the understanding of use of shared spaces, and experience interactions and community in these spaces, is crucial to maximising their potential. It is therefore proposed that this research would be of interest to urban planners, policy making regarding community mixing, and in turn the growing number of people who rely on the social housing system in the UK.

1.4 Research Questions

Having identified the rationale for this research topic, we can now detail the specific research question which has been addressed. These questions have been drawn from the apparent gap in the literature identified above, and have been devised to provide some of the missing pieces in current understanding of the experience of interactions in socio-economically mixed developments. The central research question is: ***How do residents from different socio-economic backgrounds use and experience shared spaces in mixed housing developments, and what is the role of the shared spaces in encouraging interactions and a sense of community between these groups?***

Four sub-questions have been devised in order to answer this:

    i.   What shared spaces are available?
   ii.   Who uses which shared spaces, and for what purpose?
  iii.   What interactions do residents have in these sites, and does this lead to more local contacts?
  iv.   Do residents who use the shared spaces have a stronger sense of community?

On the basis of the above social and scientific relevance, this research is undertaken with the aim of further understanding the processes and experiences of interaction which take place in order to better inform the design of, and expectations for, future socio-economically mixed developments. The expectations for findings are detailed and supported in the literature review in the next section.

1.5 Structure

The remainder of the paper is structured as follows; first, an overview of existing theories and research is given to scientifically ground this paper and the expectations of results. A conceptual model follows this to delineate these hypotheses and the processes which are being investigated here. Next, the methodology is detailed, expanding on this brief introduction to the site, and the data collection and analysis methods employed. We then move on to the analysis section, which takes each of the sub-questions above in turn, summarising the results found and the extent to which these support the hypotheses made. Towards the end of the paper, the conclusions section summarises the answers to the sub-questions, and links the findings back to the overarching research question. The discussion section covers any discrepancies in findings compared to previous studies and potential explanations for this, as well as incorporating reflections on the limitations of this study. Finally, the policy recommendation section briefly details some of the potential practical applications of these findings in terms of designing future mixed housing developments.

2. Literature Review

It is first necessary to situate the topic of this research in relation to existing theory, previous research and testing, and policy approaches. This review is split into the sections of defining social mixing; neighbourhood effects; expected benefits of mixing; negative consequences; creating social contacts; and urban design on the levels of the city, formal meeting opportunities, and informal meeting opportunities. Finally there is a brief conclusion in relation to this piece of research.

2. 1 Defining Social Mixing

First and foremost, let us look at the history of social mixing and some of the key definitions seen in current literature. Social mixing policies have been introduced in many countries including the UK, increasing mixed tenure housing to create 'balanced communities' with households of different sizes, ages, and incomes (Van Kempen and Bolt, 2012). This is far from a new ideal, and can be traced back to the strive for diversity in post-war council housing. In 1949, the Health and Housing Minister Aneurin Bevan stated:

> "[…] it is entirely undesirable that on modern housing estates only one type of citizen should live. If we are to enable citizens to lead a full life, if they are each to be aware of the problems of their neighbours, then they should all be drawn from different sections of the community. We should try to introduce what was always the lovely feature of English and Welsh villages, where the doctor, the grocer, the butcher and the farm labourer all lived in the same street … the living tapestry of a mixed community" (Cited in Berube, 2005, p.2-3)

In some of the earliest attempts of social mixing and face-to face contact, it was hoped "exposure to a mixed environment would […] enlarge people's horizons and so benefit society as a whole" (Heraud, 1968 in Van Eijk, 2013, p.370). More recently, mixed communities policy was first explicitly expressed by the New Labour Government in the 1999 Urban Task Force report:

> "Whether we are talking about new settlements or expanding the capacity of existing urban areas, a good mix of incomes is important" (Cited in Kearns and Mason, 2007, p.661)

The riots in 2001 in Oldham, Burnley, and Bradford sparked fresh interest on the topic, with the blaming of segregation signalling a shift in policy focus from diversity to assimilation (Van Kempen and Bolt, 2009). The Cantle Report issued by the Home Office (2001, p.9) reacted by stating "The team was particularly struck by the depth of polarisation of our towns and cities […] many communities operate on the basis of parallel lives. These lives do not seem to touch at any point, let alone overlap and promote meaningful exchanges". Quoting from the Department for Communities and Local Government in 2006, Camina and Wood (2009, p.459) state how mixed communities were "incorporated into planning policy via PPS3 which requires "sustainable, inclusive, mixed communities in all areas, both urban and rural" to be created by including "a variety of housing, particularly in terms of tenure and price"".

However, despite occupying such a central position in housing policy, the definition of social mixing is far from well defined. It remains unclear what mixing should be done on the basis of, on what scale, and what the ideal level of mix is (Van Kempen and Bolt, 2009). Uncertainty notwithstanding, the push for socially mixed communities continues, and they are constructed in a number of forms. These mixing strategies are split into three streams by Kearns and Mason (2007): *Dilution* policies aim to

reduce the proportion of social rented housing within a neighbourhood, for example through the sale of rented homes to tenants or the development of new houses for sale. *Diversity* policies aim to "ensure all new housing developments or new communities have a reasonable proportion of social rented homes included within them" (p.664). Finally, *Dispersal* policies involves relocating residents in deprived neighbourhoods to non-deprived neighbourhoods. The majority of strategies employed in the UK context are Dilution or Diversity centred, and the case study explored in this research is a new-build development example of the Diversity strategy.

We will now turn to the theoretical justification for why this has become such a priority in government policies not only in the UK, but across Europe, North America, and Australia in particular.

2.2 Neighbourhood Effects

In order to understand the societal relevance of encouraging cross-group interactions, this section focuses on research into externalities which can arise from the neighbourhood. There has been much research into the 'neighbourhood effect' on individual outcomes, that is to say the effect the area one lives in has on outcomes such as income, school attainment and so on, over and above the effect of any individual or household level characteristics (Rankin and Quane, 2002). We see this effect in political and media rhetoric; looking to the example of London, Prime Minister David Cameron has recently stated that funding has been set aside for the renewal of 100 of the worst 'sink estates' in England, defined as those in which there are very few opportunities and people feel trapped in a cycle of poverty. We now look at the ways in which these effects come about.

Much of the research into neighbourhood effects is intertwined with ethnic segregation, rather than concentration of households on the basis of income alone. Whilst this research focuses purely on the latter, it is important to include the literature on ethnic mixing; there is no one-to-one correlation between ethnicity and socio-economic status, but the two are certainly related, with patterns of concentrations of poverty and deprivation at least partially describing the arrangements of ethnic segregation we see. Wilson (1987) describes the formation of ghettos and the creation of the "ghetto poor" as resultant from a number of structural changes; namely the industrial decline of the inner city and the out-migration of the middle class, partially as a result of the introduction of fair housing policies, leaving the areas with a higher concentration of poverty and cut off from mainstream economic life. Importantly, although these changes are cited to lead to a 'social pathology of the poor', this is said to be due to the lack of middle-class role models to socialise young people and instil proper values and behaviour: if the circumstances of the area were to change then so too would the 'culture of poverty' (Wilson, 1987).

There have been some issues with Wilson's discussion, relating to how neighbourhood effects are measured, including allowing for selection effects, how to define the boundaries of neighbourhoods, and the focus on African-Americans which ignores the diversity of influence in many inner cities (Small and Newman, 2001). In addition, there is ongoing debate about the extent to which neighbourhood effects are important in determining outcomes, particularly in a society which is ever more mobile and less restricted to the community sphere (Van Kempen and Bolt, 2012). However, there is a general consensus that its effects will vary depending on the sector of the population: that existing studies indicate that neighbourhood effects are particularly strong in early childhood, as this is the only socialisation beyond the household that young children are exposed to (Small and Newman, 2001). Late adolescence is also a susceptible age, due to the fact that children are becoming more

independent and taking more social ques from their peers than their family (Small and Newman, 2001). Finally, the elderly and those of a lower socio-economic status tend to be more influenced by their local surroundings, as their ties tend to be more locally focused and they lack the mobility or resources to go elsewhere for support (Van Kempen and Bolt, 2012).

In order to attempt to correct this disadvantage, it is important to understand the underlying mechanisms through which neighbourhood effects take place. Galster (2012) gives a comprehensive overview of four categories of causal pathways through which neighbourhood effects take place. These are summarised below in Fig.1.
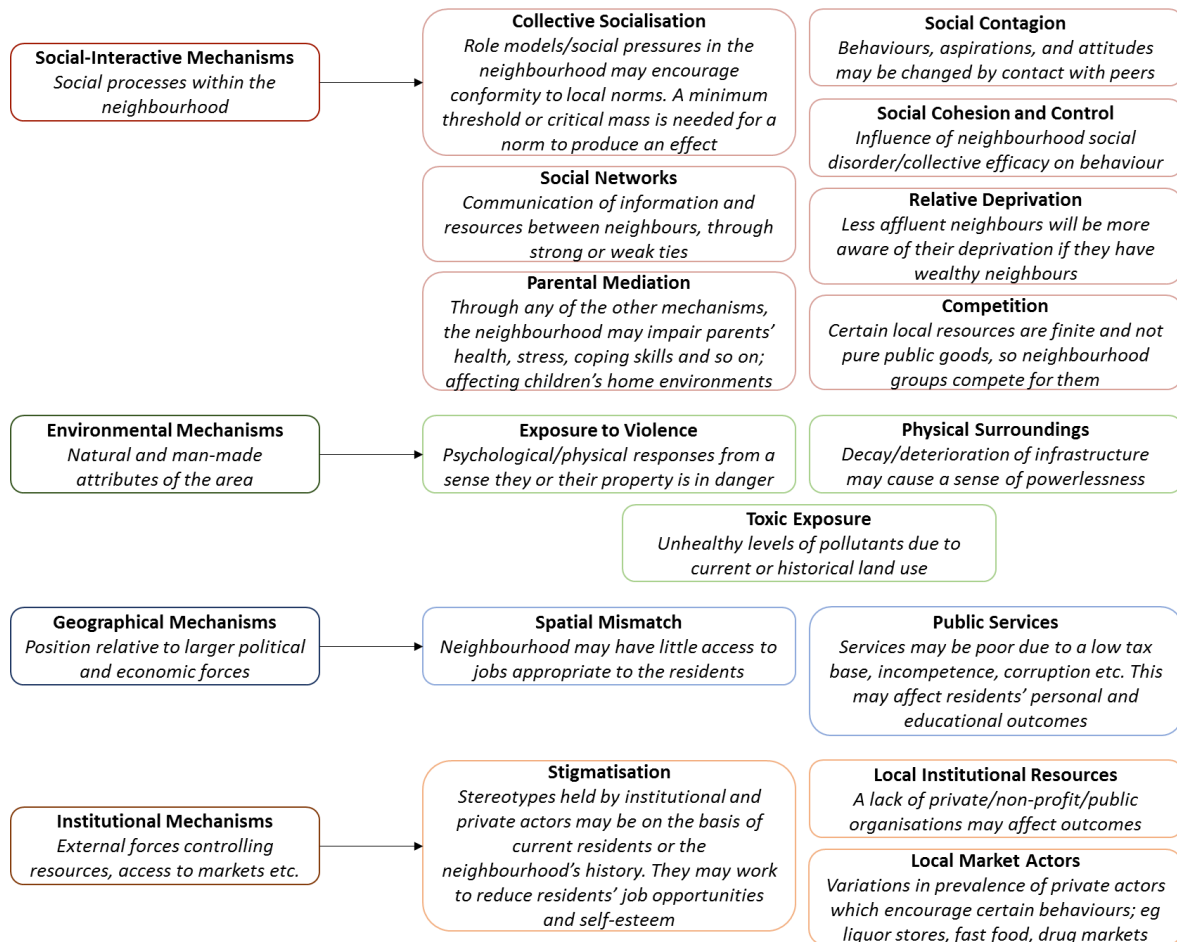
Social-Interactive Mechanisms
Social processes within the neighbourhood

Collective Socialisation
Role models/social pressures in the neighbourhood may encourage conformity to local norms. A minimum threshold or critical mass is needed for a norm to produce an effect

Social Contagion
Behaviours, aspirations, and attitudes may be changed by contact with peers

Social Networks
Communication of information and resources between neighbours, through strong or weak ties

Social Cohesion and Control
Influence of neighbourhood social disorder/collective efficacy on behaviour

Relative Deprivation
Less affluent neighbours will be more aware of their deprivation if they have wealthy neighbours

Parental Mediation
Through any of the other mechanisms, the neighbourhood may impair parents' health, stress, coping skills and so on; affecting children's home environments

Competition
Certain local resources are finite and not pure public goods, so neighbourhood groups compete for them

Environmental Mechanisms
Natural and man-made attributes of the area

Exposure to Violence
Psychological/physical responses from a sense they or their property is in danger

Physical Surroundings
Decay/deterioration of infrastructure may cause a sense of powerlessness

Toxic Exposure
Unhealthy levels of pollutants due to current or historical land use

Geographical Mechanisms
Position relative to larger political and economic forces

Spatial Mismatch
Neighbourhood may have little access to jobs appropriate to the residents

Public Services
Services may be poor due to a low tax base, incompetence, corruption etc. This may affect residents' personal and educational outcomes

Institutional Mechanisms
External forces controlling resources, access to markets etc.

Stigmatisation
Stereotypes held by institutional and private actors may be on the basis of current residents or the neighbourhood's history. They may work to reduce residents' job opportunities and self-esteem

Local Institutional Resources
A lack of private/non-profit/public organisations may affect outcomes

Local Market Actors
Variations in prevalence of private actors which encourage certain behaviours; eg liquor stores, fast food, drug markets

***Fig.1:** Galster's mechanisms of neighbourhood effects*

These numerous mechanisms are summarised into two overarching themes by Small and Newman (2001): socialisation mechanisms and instrumental mechanisms. Socialisation mechanisms relate to the ways in which the neighbourhood molds behavioural patterns, for example seeing peers engage in certain behaviour, a lack of successful role models, and worse treatment from non-resident adults such as teachers. Instrumental mechanisms relate to the ways in which the neighbourhood limits individual autonomy, for example having less access to jobs, education, and a lack of political alliances. However, not all mechanisms necessarily have the same extent of influence. Considering the relative importance of the ways in which neighbourhood effects take hold, Wacquant et al (2014) argue that that the territorial stigmatisation an area suffers, involving the stigma flowing from the ordinary others and the symbolic power employed by an authority capable of making its representations stick, is

paramount to the maintenance of neighbourhood disadvantage. However, Kohen et al (2008) cite parental mediation factors as a key pathway through which children's outcomes are affected. It is considered this highlights how crucial it is to understand the specific mechanisms appropriate to the neighbourhood in line to be restructured. The overall justification for mixed neighbourhoods is therefore that they would increase the capital of the area which would aid the improvement of education and facility provision; increase the number of successful role models to guide positive behavioural norms; increase the social capital of the lower socio-economic status residents such that they had more resources to call upon to find employment; raise the neighbourhood profile through investment, and so on. However, evidence for the above mechanisms is mixed, and is highly dependent on context; whilst support may be found in neighbourhoods in the US, this does not necessarily translate to the situation in the EU (Galster, 2012). It is therefore vital to investigate and understand the mechanisms taking place in a specific area before housing policy is devised, as this will determine what kind and levels of mixing should be aimed for: without this, "the common policy thrust toward neighbourhood social mixing must be seen as based more on faith than fact" (Galster, 2007, p.35).

Further, there has also been much discussion on the relationship between neighbourhood disadvantage and levels of collective efficacy. Collective efficacy is defined by Sampson (2012) as social cohesion among neighbours combined with their shared expectations for social control and order. Neighbourhoods with a higher socio-economic status tend to have higher levels of social order, partially due to the fact they have more resources at their disposal, in terms of time, finances and institutions, to reduce social disorganisation in wealthier neighbourhoods. Whilst others have argued that increased diversity may undermine efforts to improve collective efficacy due to the differences in expectations for behaviour and difficulties in communication, Sampson (2012) raises that social bonds do not need to be particularly strong for there to be high level of collective efficacy. As long as households are invested in their community and have the resources to act to enforce the shared expectations for behaviour then social order can be maintained.

Mixed communities are therefore also created with the aim of improving social cohesion, interrupting the mechanisms of neighbourhood effects described above, breaking the negative cycle of deprivation present in highly disadvantaged areas. We will now look at the expected positive benefits of social mixing in more detail, and the *ways* in which they are expected to bring about positive change.

2.3 Benefits of Social Mix

As previously stated, this research focuses on the influence of socio-economic mixing, the most common aim of neighbourhood mixing in the UK. It is therefore relevant to turn to Kearns and Mason (2007, p.665), who divide the "expected benefits to disadvantaged neighbourhoods of greater income mixing" into four categories, shown in Table 1.

Economic Service Impacts ⟶	These are the *Resources effects;* enabling the area to sustain more businesses and giving a greater voice to the residents
Better quality public services	
Improved quality and quantity of private services	
Enhanced local economy	
Increased rates of employment	

Community-Level Effects ⟶	These are the *Community effects;* involving cultural changes, increases in social capital, widening networks, and increasing bridging and linking capital
Increased social interaction	
Enhanced sense of community and place attachment	
Reduction in mobility and greater residential stability	
Social and Behavioural Effects ⟶	These are the *Role model effects*; including the effects of new residents on aspirations, parenting, anti-social behaviour, and peer pressure
Reduction in anti-social behaviour	
Better upkeep of properties and gardens	
Raised aspirations	
Enhanced educational outcomes	
Overcoming Social Exclusion ⟶	These are the *Transformational effects;* allowing the area to reduce its stigma with both residents and outsiders, increasing optimism and meaning the area and residents are treated differently
Reduction in area stigma	
Increased connectivity with other places	
Enhanced social networks	

Table 1: Expected benefits of social mixing

It is considered the most difficult of these four effects to investigate and determine support for is the community level effects. The remaining three categories of effects which Kearns and Mason (2007) illustrate can, at least to a certain extent, be considered fairly direct consequences of the mixing policy itself. Economic service impacts, bringing better quality services and an enhanced economy, will logically result from an influx of higher socio-economic status residents who demand such services, will add to the tax base, and have more disposable income to spend in the vicinity. The social and behavioural effects, including reducing anti-social behaviour and raising aspirations, can follow from the observations residents make of each other and the resulting change in expectations for behaviour they hold. Finally, overcoming social exclusion, or the transformational effects of reduced stigma and increased connectivity, again can logically flow from both the introduction of higher status residents themselves, and as a benefit from the economic service impacts and social and behavioural effects discussed, as a new image is carved out for the neighbourhood. However, there is no such a straightforward relationship for the community level effects, where interaction between the residents is required to produce the cultural changes and improvements in social capital proposed. It is this this area which this research primarily focuses on, looking at the interactions which *do* take place in a mixed neighbourhood, the type of exchanges they are, and who they are between. By doing this, a better indication can be gained of the extent to which these community level effects are present.

Although in different formats, Kearns and Masons's (2007) expected effects are largely repeated across other literature, with some additions. Van Gent et al (2016, p.249) for example, include the idea of the possibility of increased political mobilisation as networks are broadened, stating that "role modelling, neighbourhood efficiency, political mobilisation, and improvement of amenities are among the most commonly cited benefits in urban policy documents". Berube (2005) links the various justifications for mixing policies into three sections: that mixed areas avoid or break up concentrations of deprivation and thus improve quality of life; that they aid in achieving other policy goals such as health or education; and that they improve the sustainability of neighbourhoods by preventing a 'cycle of decline' which is costly to correct as well as any upward price spiral which excludes lower income households. Camina and Wood (2009, p.459) summarise by stating "tenure diversification is expected to improve stability and sustainability and, by increasing owner occupation, to raise the numbers with a stake in and commitment to the estates".

Arthurson delineates two major ideas providing the justification for Australian mixed housing projects; "first that lowering concentrations of public housing and developing more mixed income communities offers a means to reconnect socially excluded public housing tenants to mainstream society; second that a balanced social mix is a prerequisite for the development of 'inclusive', 'sustainable' and 'cohesive' communities" (2002, p.245). The idea of enhancing social cohesion is not explicitly made by Kearns and Mason (2007), however the key elements can be seen in the community level effects discussed above. Van Kempen and Bolt (2009, p.558) take the definition of social cohesion as comprising of "shared norms and values, social solidarity, social control, social networks, and a feeling of belonging to each other through a common identity and a strong bonding with the place where one lives"; and we do see it as focus within policy. It is a tendency of policy makers to assume that increasing social mix will aid this in the sense that social networks will be broadened and expanded, norms will be passed on to the lower income households, and social control will improve due in part to the influence of an increased investment in the area from home owners (Van Kempen and Bolt, 2009). However, there are difficulties with this assumption which we will come onto shortly. Social cohesion is also involved in Wood's "seven principal objectives of tenure diversification: promoting social interaction and social cohesion; encouraging the spread of mainstream norms and values; creating social capital; opening up job opportunities through wider social contacts; overcoming place-based stigma; attracting additional services to the neighbourhood; and producing sustainable regeneration" (cited in Camina and Wood, 2009, p.460).

However, it is not clear that these expected benefits are always played out in reality. For example, Kearns et al (2013, p.406) found that whilst both owners and renters in their study saw benefits of living in mixed tenure communities, most people "discussed psychosocial benefits such as promoting feelings of equality and improving area reputation, with little mention of other outcomes referred to in the literature in respect of jobs, incomes, education etc.". Whilst some benefits may still be gained, the community level benefits are more difficult to stimulate through mixing policy alone. Looking at the *ways* in which these benefits are thought to be brought about, in planning in the 1970s it was hoped that tenure mix would create social mix through the sharing of various facilities available to all, particularly amenities such as shops and entertainment centres, and services such as schools and health centres (Camina and Wood, 2009). However, Joseph et al (2007) conclude that there is most compelling evidence to suggest that the lower-income households may benefit from greater informal social control and access to higher quality services, but that there is less convincing evidence to suggest they would benefit through social interaction and role modelling with higher socio-economic status households. We will now look in more detail at the effectiveness of mixing policies.

2.4 Effectiveness and Negative Consequences

Firstly, there is an issue of focusing on increasing social cohesion. As discussed previously, Van Kempen and Bolt (2009, p.558) take the definition of social cohesion as comprising of "shared norms and values, social solidarity, social control, social networks, and a feeling of belonging to each other through a common identity and a strong bonding with the place where one lives". Generally, it is assumed these dimensions reinforce each other: where people have shared norms and values they are more likely to make social contacts, meaning the sense of belonging in the neighbourhood is strengthened. However, evidence suggests these dimensions are not strongly interrelated, and therefore cannot be considered interchangeable. Instead, it can be understood not as a single concept, but as a "domain of casually interrelated phenomena" (Friedkin, 2005 in Van Kempen and Bolt, 2009,

p.458). This makes pursuing social cohesion in policy problematic, as the processes through which it is improved are clearly not fully accounted for.

When we look at this in terms of the factors which combine to describe socially cohesive neighbourhoods, Kearns and Mason (2007) found that a greater diversity in tenure was associated with an increase in resident identification of half of the neighbourhood problems, rather than mixture reducing problems. Further, the issue most strongly related to tenure diversity was the incidence of problems with neighbours; an indication of a lack of social cohesion. Further, Völker et al (2007) found that although mixed income housing did not affect the number of neighbours in residents' networks, it did negatively influenced residents' sense of community.

It is clear from the theoretical background on which social mixing policies are based, there is expected to be high levels of interaction between the different groups in order to bring about the promised benefits. However, Arthurson (2002) argues that the extent of mixing aimed for is unrealistic. This is at least partly due to the fact residents live parallel lives, moving in different circles, which hampers opportunities for building new social networks. Van Kempen and Bolt (2009, p.461) summarise this by stating "spatial proximity is not a sufficient condition for social interactions"; people prefer to live and interact with people who are similar to themselves, and as such homogeneous areas score higher for resident perception of social cohesion. In a study of three estates in Adelaide, Australia, Arthurson (2007, p.14) found "homeowners and homebuyers are more likely to spend most of their time outside of the local suburb than compared to public housing tenants whose social and family activities more often take place in their homes and local suburb than the world beyond […] residents live in the same suburbs, even alongside of each other, but with little contact". In a review of the previous research, Arthurson (2007, p.4) writes "literature suggests that where social interaction does take place in socially mixed neighbourhoods it is usually between residents with similar socioeconomic characteristics, where owner and rental housing is spatially integrated or owners have connections or roots in the local area".

As such, Kintrea and Atkinson argue "it is one thing to suggest as Wilson does that social networks are important; however, it is quite another to propose, as happens in regeneration, that government can rebuild more socially integrated, cohesive, inclusive and sustainable communities through introducing middle-income home owners into social housing estates" (in Arthurson, 2002, p.246). Joseph et al (2007, p.398) agree, stating "initial research suggests that simply sharing the same space will not build the level of interaction necessary to promote the meaningful exchange of information and support". Van Gent et al (2016) also conclude that residents do not necessarily interact in any meaningful way, with mixing instead leading to social tectonics. This is re-enforced by the different mental maps different groups have of their neighbourhood, in which different areas are included or excluded. Important factors which influence these maps are ethnicity and social class, as well as age and length of residence. On the basis of the above discussion, we would therefore expect to find in our study that use would vary depending on factors such as employment status and family structure, as these dimensions will influence residents' daily structure. As employment status is linked to tenure, it follows that we would expect there to be more intra than inter group interactions based on tenure type, as residents are more likely to cross paths with people similar to themselves. This is expected to be reinforced by residents' preference to interact with people they see as comparable to themselves.

This idea is partially replicated in Camina and Wood's (2009) study of three mature 1970s estates in the UK, planned as mixed estates from the beginning. Their findings show that people were not always

aware of who was renting and who owned their home, they liked the estates and perceived them as occupied by people like themselves. However, residents did tend to have more contact and friendships with people of the same tenure, whilst cross-tenure relationships were polite rather than friendly. Although there remains the opportunity for a role model effect to take place, expanding the horizons of all residents to different ways of life, this brings into question the scope there is for passing on know-how and linking residents with job opportunities (Camina and Wood, 2009). However, it is possible that there do not need to be strong relationships between individuals for important information to be passed on. Granovetter (1983) describes weak ties as crucial bridges between groups of closely knit individuals, ensuring that people are not limited to the information they receive from their close social group. This extends to mobilising political movements and the spread of scientific ideas, but also incorporates a wider access to the job market with more chance of hearing of a vacancy at the right moment (Granovetter, 1983). For this kind of benefit, individuals need not have a close friendship, and acquaintances within the neighbourhood may be sufficient.

As we have seen above, there are multiple goals and expectations of social mixing policies, and therefore there exist tensions and potential conflicts between different goals; some problems may be reduced by mixing, but is this simply dispersing the problem? (Van Eijk, 2013). In addition to the concerns of the effectiveness of these policies, there are also potential negative consequences. Firstly, most mixing policies focus on the deprived neighbourhoods with a high level of social renting, rather than being applied to homogenous wealthy areas. As such, they prevent mixed communities being perceived as the norm and may lead to some of the following issues (Kearns and Mason, 2007).

Secondly, Arthurson (2002) argues that cohesive communities already exist; policy is based on assumptions that concentrations of social housing and cohesive or inclusive communities are mutually exclusive, whereas this is not the case. Enforcing mixed communities therefore comes at the expense of breaking up existing communities and support networks. In order to achieve a higher proportion of owner occupiers in a social rented dominated area, existing social housing must be sold or demolished and new housing built to be sold. This inevitably reduces the social housing stock, putting pressure on a system where demand already far outstrips supply (Arthurson, 2002). Although the aim is to retain residents, enabling the most socially mobile to move up the housing ladder within the same neighbourhood, this is not necessarily realised due to the time lag between reducing the social housing stock and constructing new homes; the most mobile are forced to look elsewhere and the poorest are left with fewer options than before (Bolt et al, 2010).

There is not only the displacement of former residents, but the place-based displacement of those who remain, with the changes in environment and the differences between themselves and the new residents meaning they no longer feel 'at home', potentially meaning they withdraw from the neighbourhood (Van Gent et al, 2016). Additionally, the new residents may purposefully disaffiliate themselves from the neighbourhood, perhaps due to the poor reputation it has historically held. These processes of 'selective belonging' by the more affluent residents, through withdrawing from socially mixed areas and neighbourhood social life, and retreating to more homogeneous areas, effectively mean both groups are excluded (Van Gent et al, 2016). This reinforces the expectation that interactions are more likely to be within socio-economic groups than between them.

Further, there are concerns that rather than leading to integration, mixing can increase awareness of class differences, creating tensions and social isolation (Arthurson, 2002). This is related to Putnam's (2007) constrict theory, which stipulates that when ethnic diversity in a neighbourhood increases,

residents 'hunker down' and withdraw from social contacts. Not are residents said to shy away from contact with groups different to themselves, they also have fewer in-group contacts, trust is lower, and mutual help is rarer. This is contrasted to contact and conflict theories, which state that high concentrations of diversity will, respectively, foster interethnic tolerance through increased exposure and understanding, or will heighten interethnic distrust through increased contention over resources, whilst increasing in-group solidarity (Putnam, 2007). Whereas mixing policies see concentration as bad for cohesion, and aim to rectify this by enabling 'stronger' residents to help 'weaker' residents, Putnam states that it is not concentration but diversity which is the key (Gijsberts et al, 2012).

However, there have been mixed results of studies aiming to determine if there is any support for Putnam's theory that diversity negatively influences social cohesion in a European context. Looking at the situation in the Netherlands, Gijsberts et al (2012) found little evidence to support Putnam's constrict theory. Whilst there was less contact in ethnically diverse neighbourhoods, there was no diversity effect on the other dimensions of social cohesion: differences in trust in others, informal help, and voluntary work were due to compositional effects rather than diversity. The effect on the level of contacts with in the neighbourhood was likely explained by competition theory, as people feel threatened by a large population of residents different to themselves particularly when they do not understand the other's language (Gijsberts et al, 2012).

As this study does not compare a changing level of diversity, it is not within the scope of this study to investigate how apt contact, conflict, or constrict theory is in this development. However, they are nonetheless important potential mechanisms to be borne in mind when assessing the effectiveness of public spaces for encouraging interaction between groups. It is considered that policies of social mixing are enacted on the basis of contact theory, that increased exposure to those of a different socio-economic or ethnic background will foster understanding and tolerance, leading to the positive social interactions required to begin creating equal levels of social capital.

Returning to evidential support for socio-economic mixing however, Kearns and Mason (2007) also raise the issue of diversity, in the context of increased stress and deteriorating health risks for lower income households due to the relative deprivation they are now faced with. In a critique of mixing policies and outcomes, Van Eijk (2013, p.376) concludes "It is not just that socially mixed neighbourhoods are ineffective in stimulating intergroup relations; the critique goes further: the gentrifiers may not be very tolerant of deviant lifestyles. In this view, social mixing may actually lead to conflict, polarization, and, eventually, exclusion (for instance from public space)". However, Van Kempen and Bolt (2009) conclude that there are some positive results for social mixing on a moderate scale, improving the mix of the poor and the not-so-poor, as there is not such a social divide between residents. This adds to the concern over the vague definitions of mixing in policy, as it is apparent that thorough research into the ideal levels of mix to be created is critical.

Finally, there is an argument that the policy simply relocates the problem rather than solving it, moving crime, unemployment, and other social problems to another area. This works to "render [low income families] less visible, as a consequence making the problems they experience of poverty and unemployment easier to ignore" (Arthurson, 2002, p.258). This is a further concern when considering access to services, as services which are only provided when poverty levels are at a certain level of concentration may be lost with an influx of middle income households (Arthurson, 2002).

2.5 Creating Social Contacts

With the levels of interaction and integration on mixed housing developments potentially not as high as would be expected or required in order to bring about the theorised benefits of wider social networks, it is important to turn now to literature on how individuals create and maintain social contacts to understand the trends and gather information on how to stimulate this. Spaces in mixed communities must be conducive to interactions to provide the social connections needed to have more equal life outcomes, and therefore it is important to understand the processes at work.

There is a distinction between the types of social contacts which are created, and which are referred to through this project. Firstly, 'light' interactions are those which are brief, spontaneous encounters rather than planned gatherings with friends (Van Eijk and Engbersen, 2011). It is these weak connections between residents who do not otherwise know each other which potentially offer the expanding social networks and other benefits associated with mixed communities. However, the debate over how effective they really are in delivering these promises has been covered previously. Secondly, there some of these interactions may lead to deeper local connections within the community, as the initial encounter allows residents to discover common ideals or interests. It is expected here that those who use the shared spaces will have more light interactions as the opportunity will arise more frequently. It is further expected that those who interact more will form more local connections, as they have a greater potential for repeated light interactions over which to develop the bonds. Given the restrictions and influences on use of space discussed earlier, residents are expected to have more light interactions and local connections with others in the same tenure as themselves.

In light of the importance of social capital and neighbourhood connectedness detailed previously, this section considers a number of theories on the *ways* in which these social connections are formed and maintained. Firstly we look at general themes of social interaction, and the theory that social circles are centred around subcultures. Park (cited in Neal, 2013), describes cities as mosaics of little worlds populated by groups with a common way of life, or subcultures. These subcultures are made possible by intersecting social circles allowing more narrowly defined subcultures to emerge. Subcultures are defined by their differing norms and expectations of conduct, which can also form out of the group through the mixing of individuals. Foci, such as parties or the local school, facilitate the formation of social groups, with individuals becoming clustered and organised around social circles (Neal, 2013). For subcultures or social groups to exist, interaction is crucial. As such, the ways in which shared spaces in a housing development can act as a foci and encourage interaction is key to creating a community social group.

The relationships within groups tend to be transitive, with it being likely that two individuals with a mutual friend and mutual foci will know each other. The closure of a subculture is defined by the number of relationships outside the group compared to inside the group, with a higher closure making the subculture more identifiable, allowing more of a sense of cohesiveness and identity, and facilitating easier enforcement of norms and expectations (Neal, 2013). In the instance of a housing development, it is likely that many residents will have relationships outside of the immediate community, and as such the closure of any potential subgroup will be lowered. However, it is considered that residing in same development gives its own sense of identity, whilst the proximity and potential for complete transitivity may counter the openness of the subculture to facilitate the enforcement of the group's norms.

However, it is clear that not all developments succeed in creating an environment around which a subculture which crosses socio-economic boundaries can form. The idea of mixed housing and state-led gentrification has been used as a strategy to restore social order and improve liveability through the extension of the desired norms and values of the higher socio-economic status households to all residents, although it is often noted that living in the same place does not mean living together, rather leading to residents living parallel lives with little interaction (Uitermark et al, 2007). Whilst residents may form subcultures around other shared characteristics, such as their ethnic background, a broader subculture encompassing a greater diversity of residents is not created.

Diverging from the idea that subcultures are necessarily sought and produced, focus theory stipulates that "activities are organised around foci and, consequently, so are interactions and sentiments" (Feld, 1981, p.1017). These foci can be "any social, psychological, or physical entity around which joint activities are organised" (Feld, 1981, p.1025). The more foci individuals have in common, and the more constraining it is, in terms of time and energy invested, the more likely those individuals will be tied. However, where individuals have fewer, less constraining, and smaller foci underlying the tie between them, the more bridging the tie is between groups (Feld, 1981). These bridges are important for the spread of ideas, and in the context of the neighbourhood, for the spread of opportunities and norms as discussed previously. The question then arises of what spaces or neighbourhood organisation can provide this foci around which neighbours can be organised in joint activities. It is considered that the shared spaces themselves are not constraining as residents can use them at any time, and as such when activities to appeal to all residents are held in them, a greater volume and diversity of users is expected, as well as a higher volume of interactions.

Further focusing on in on the neighbourhood as a potential site of interaction, Blokland (2003) identifies four types of bond which are present between neighbours: *interdependencies, transactions, attachments*, and *bonds*. Previously, ties within the local neighbourhood held greater importance, but with the expansion of the welfare state and increased mobility, among other factors, the immediate area is no longer so relied upon for social support (Blokland, 2003). As such, in present neighbourhoods some neighbours have *interdependent* relationships, as their behaviour may bother others for example, but do not interact. Some neighbours may maintain superficial, *transactional*, contact for instrumental reasons, such as watering plants when they are away. Further, some may have *attachments* due to perceptions that knowing your neighbours is important. Finally, some may have developed intimate *bonds* with their neighbours, which are easier to establish now that there is no longer a need to balance this with mutual aid (Blokland, 2003).

The extent to which these bond encourage imagined communities, that is the feeling of solidarity and inclusion or exclusion of others through daily practices, varies (Blokland, 2003). Bonding ties often promote these imagined communities, whilst interdependencies rarely do. For transactions and attachments to contribute, levels of public familiarity or institutional familiarity are required respectively. Much focus of UK policy is on improving the interdependencies between residents to stimulate community, however many relationships are not related to this; the importance of relationships based on affection or affinity should not be overlooked when striving to develop imagined communities within neighbourhoods. Overall, neighbourhood use was found to be lowest for those with segregated or integrated networks, as they are spread geographically and neighbourhood is not so important for their social identification; they just need to live *somewhere* Blokland, 2003). In this study, it follows that it is expected the use of spaces and the level of interactions and local contacts people have will influence their sense of community; where use is

higher and individuals interact more, sense of community is expected to be stronger as residents are more connected to their neighbours in terms of the extent of knowledge they have of them and any affectional bond.

Looking at *when* individuals are likely to make these various ties to promote community, Völker et al (2007) identify certain conditions which should be met. Here the focus on the opportunities for multi-functionality available with a group of residents, and understand community as "an arrangement in which individuals derive important personal benefits for well-being from doing things together with others" Völker et al (2007, p.100). They identify three conditions under which local community is created; residents must have the opportunity, ease, and motivation to do so. These are said to be realised when neighbourhoods have more meeting places; neighbours are motivated to invest in relationships locally; they have few relationships outside the neighbourhood; and neighbours are mutually interdependent. Particularly of interest here is the role of meeting opportunities, including the volume of facilities available, the length of residence and time spent in the neighbourhood, and the extent to which the time schedules of residents are synchronised. This is in keeping with the expectations for interactions to vary on the basis of employment and family structure made previously. It is to the potential influence of the provision of meeting opportunities which we now turn.

2.6 Urban Design

We now turn to the urban design which aims to facilitate interactions between different groups of residents, the ways it attempts this, and the outcomes recorded in the research so far. This is split into the levels of the city, local formal meeting opportunities, and informal meeting opportunities on the scale of the housing development.

City Layout

This section considers the role of urban design, at the level of city or community layout, in facilitating diverse social networks. When considering the dual aspects social sustainability; social equity and the sustainability of the community itself; Bramley and Power (2009) found that social networks are key for communities to be maintained. Although the density of an area is linked to better access to services, it is also linked to increased neighbourhood dissatisfaction and the incidence of neighbourhood problems, causing a trade-off between the two aspects of a sustainable community. However, they also found that the sociodemographic characteristics of the area have a stronger influence on dissatisfaction and the incidence of problems, with the concentration of poverty and social housing enhancing the issues. From this, it follows that communities should strive for a relatively dense form, with a housing types and tenures to cater for socio-economically diverse residents.

This is the aim of New Urbanism, which strives to create diverse communities to offer the 'full range' of society. This is done through walkable neighbourhoods with highly mixed land use, merging retail, leisure, and different housing types in the same areas (Cabrera and Najarian, 2013). New Urbanists see "diversity [as] fundamental to creating healthy, vibrant communities" (Cabrera and Najarian, 2013, p.427), helping to prevent all things different being seen as dangerous and with children who live there more likely to develop empathy for others. However, Cabrera and Najarian's (2013) research found that although New Urbanist neighbourhoods may have more diversity at the macro level, in terms of the mixed demographics of the community, this does not translate to diversity at the mirco

level, meaning individual's social networks remain largely homogenous. This was attributed to homophily, or the tendency of individuals prefer to socialise with those they are similar to, essentially leading to the phenomenon of residents leading parallel lives as discussed earlier. This research aims to investigate if design at the level of the housing developments can help to convert this macro diversity at the neighbourhood level to micro diversity at the level of social networks by overcoming the differences which may initially prevent connections being made. This will be discussed shortly, but we first turn to the role of more formal meeting opportunities.

Formal Meeting Opportunities

To mitigate against residents living parallel lives or risk rising intolerance due to fear of rising diversity, sites of interaction are needed to facilitate communication and exchange. To this end, there has been much research into the potential facilitating role of formal meeting places, such as local community centres, schools, libraries, and so on. Audunson (2005, p.436) states that a "viable local community needs arenas that can provide a minimum community in values, meeting places where people can meet, communicate and be active together across generations and social and ethnic belongings as well as arenas for debate and discussion on social and political issues". Investigating the places these discussions could take place, Amin (2002) states that micro-public spaces of everyday social contact should be encouraged to build new ways of being and understanding others. Rather than large scale events or national policies, this is aimed at the everyday encounters at the community level, encouraging people to break out of their fixed patterns of interaction to find new ways of relating (Amin, 2002). These sites of exposure to other values, interests, and preferences are required for tolerance to rise as we are able to "re-conciliate ourselves with their existence and accept them as legitimate" (Audunson, 2005, p.437)

Audunson (2005, p.436) distinguishes between the relative importance of high-intensive and low-intensive meeting places: high-intensive arenas are those "where we can live out our major interests and engagements together with people who share them", whilst low-intensive arenas are those "where we meet and are exposed to people with quite different interests and values". It is noted that whilst high intensive arenas are important for giving meaning and connecting with people who share similar interests, they can also present a potential site of fragmentation. As such, low-intensive "meeting-places with a potential of making us visible to one another across social, ethnic, generational and value-based boundaries are extremely important" (p.436).

Audunson (2005) stipulates the importance of public libraries for facilitating meetings between groups in a low-intensive environment. This is echoed by Finch and Iveson (2008, in Valentine, 2013) state that planning should focus on creating sites of conviviality, such as public libraries, which have equal access and give all users a common status, and community centres which are largely informal and less purposeful than other micro-publics. However, it should also be noted that these public spaces may work to exclude people on the basis of the activity or service they provide: libraries for example may only attract the higher educated, or users may be spatially split within the building on the basis of those there to use free computer facilities and those collecting books. Opening hours are another way in which diversity of users may be limited, with those in full-time employment unlikely to be able to go during the working week. Therefore, this may restrict the interactions and familiarity between groups which is enabled. Although not central to this research, the ways in which these more formal sites of interaction within the community may act in partnership with the less formal shared spaces of housing developments will be addressed. It is to those spaces which we now turn.

Informal Meeting Opportunities

In contrast to the formal meeting opportunities of organised events and local facilities, there are also informal meeting opportunities at the scale of the housing development. These are present in the spaces people use on a day-to-day basis which they share with their neighbours, offering the chance for repeated observations and interactions in a neutral space without the requirement for a specific activity or interest to be fulfilled. These spaces include shared entrances and hallways, communal gardens, and local parks. These are the spaces people use on a regular basis, and it is considered they therefore offer a huge potential in terms of developing connections in mixed communities. Further justification for a focus on these spaces is presented here.

Putnam (2000) states social capital, individuals connected through trust and common values, as the key to reducing social disorganisation, citing Jacobs' view that streets need to be configured to maximise informal contact to achieve this. Van Eijk and Engbersen (2011) highlight how the concept of public familiarity can be implemented at this scale. This concept lies somewhere between anonymity and intimacy, and emerges in public spaces. It describes how 'light' social interactions; repeated, spontaneous, brief encounters; can provide people with enough information to assess their neighbours in relation to themselves, allowing them to make a judgement and 'know' them to an extent. Van Eijk and Engbersen (2011) see public familiarity as essential in order to provide residents with a sense of identity and safety, particularly in increasingly 'super diverse' neighbourhoods where we see diversity along multiple ethnic, cultural, and socio-economic lines. Therefore facilitating these 'light' social interactions in public spaces is vital.

With this in mind, we now look at the scale of the housing development and the immediate community to highlight the potential informal meeting opportunities they offer. In terms of the types of social mixing which can be observed at this scale, Kearns et al (2013) describe three types of spatial distribution. The first is *Segregated* neighbourhoods, where groups are concentrated, in close proximity, but separated by a clear division such as a main road. Secondly, there are *Segmented* neighbourhoods, with groups arranged in alternating segments, each occupying a block or area such as a cul-de-sac. Thirdly, there are *Integrated* neighbourhoods, where groups are 'pepper-potted'; on a home by home basis or sharing the same street.

In order to encourage interactions between these groups, Talen (2008) delineates recommendations to improve pedestrian connections, the arrangement of courtyards to integrate various housing types, and the construction of a clear identity for the area. This could, for example, be constructed around a shared garden or a junction busy with foot-traffic, and should identify the neighbourhood as a community. Jacobs and Appleyard (1987) also stipulate the importance of the identity of an urban form, which should be combined with the encouragement of residents to take control over their city, and facilities accessible to all. With regard to public open spaces, Ford (2000) notes the importance of green areas to soften architecture, sooth residents, and fill in voids. Whyte's (1988) work took this further to discuss how the location of a public park or plaza and the availability of seating are key to the number of visitors it attracts, whilst Mehta (2009) found the same was true for the vitality the street. In many "mixed-use neighbourhoods people still depend on streets for functional, social and leisure activities, for travel, shopping, play, meeting and interaction with other people, and even relaxation". Mehta (2009) found that where this was combined with on-street seating in the form of benches, stoops, or cut outs of building, this had a strong positive effect on the liveliness of the street, with more individuals spending time and interacting there.

This research will adopt themes from these wider studies to look at the smaller scale of the housing development. These spaces will be investigated in terms of how their use and the interactions which take place may differ depending not only on the characteristics of the spaces, but on individual characteristics such as employment and family structure, as well as factors such as the time of day or day of the week. Due to time commitments of residents, the use of spaces over the course of the day and week is expected to vary, with peaks at the weekend when more of the population are available to pursue a wider range of activities. Similarly, good weather, and in particular that over the school holidays, is expected to positively influence the volume of users.

Whilst Amin (2002) has looked at the scale of the broader community, and states that housing estates are not spaces of inter-dependence and habitual engagement, Hertzberger (1991) stresses the need for architects and urban planners to pay attention to the direct environment of the building and its shared areas as potential sites of interaction between socioeconomic groups. In particular, he discusses how stairwells, semi-private gardens, thresholds to dwellings, communal outdoor spaces, and street living have the potential for allowing people to get to know their neighbours, offering a prime location to encourage repeated and potentially close ties within developments. Ford (2000) also states aspects such as a front stoop, or a bench outside, can soften the divide of public and private space and encourage interaction. Cooper Marcus and Sarkissian (1986) also specify the requirement for housing developments to engender interaction, but not to enforce it. In addition, they detail considerations such as that encounters in shared entrances only tend to be friendly if it is shared with a limited number of dwellings, such as 8, rather than being heavily used and anonymous.

Whilst published in 1991, Hertzberger's work dates to the early 1970s, and as such it is not considered redundant to look again now at how people use these shared spaces, how they could be exploited as sites of interaction and encounter. In light of the conflicting theoretical framework that contact, conflict, and constrict theory provide of the extent to which diversity will engender intragroup interactions, and the basis of the pathways through which contacts are formed offered in Feld's focus theory, the questions arise of the circumstances and ways in which intragroup interactions are brought about, and their influence on individual outcomes. Hertzberger further states that shared spaces should be designed to be passed through in order to reach other facilities, so as to maximise the number of users. In line with this, it is expected the spaces in this study which divide housing blocks from other amenities, such as the supermarket, will see a higher footfall than those which rely on individuals choosing to visit them. Further, those which are located amongst a range of land uses, in terms of both tenure mix and provision of amenities, are expected to attract a larger variety of users and uses and individuals will have a greater range of reasons for visiting the space.

Camina and Wood (2009, p.475) conclude that it is "not necessary to sign up to environmental determinism to accept a role for physical planning", as long as the social conditions are also remembered. It is considered the aim of research to guide policy should therefore be to understand how "housing design, management practices, and local facilities and amenities that create additional opportunities for everyday encounters and interactions" (Tersteeg et al, 2015, p.3). Van Eijk and Engbersen (2011) investigated the use of different types of shared spaces within a housing development; a public park, a semi-private living deck, and a shopping street. The spaces were judged on their variety of uses, quality of access, level of comfort and image, and their sociability. They found that the park encouraged diverse users and uses, allowing for light interaction between groups even if they did not speak directly and were just within sight or earshot. However, the living deck brought tensions over uses and responsibilities which could undermine mixing between owners and renters,

with home owners displeased about the children playing on the deck and those whose houses did not back onto the deck being allowed access.

It is clear here that design matters in delineating and justifying certain uses and users of space over others, with certain users assuming priority or ownership of the space (Van Eijk and Engbersen, 2011). Camina and Wood (2009, p.474-475) also found evidence that design on a neighbourhood scale had a significant impact on how residents of different tenures viewed each other. They concluded that "although there was no pepper-potting, tenants and owners were brought close together and in some cases the houses were indistinguishable. Indeed, both owners and tenants appear most satisfied when it is difficult to distinguish tenures on the ground".

Valentine concludes that "We must be careful not to be too quick to celebrate everyday encounters and their power to achieve social transformation given that proximity in urban life does not necessarily equate with meaningful contact or positive change" (2013, p.5-6), and we have discussed the extent and the processes through which this occurs above. However, given the extent of negative externalities associated with the concentration of disadvantage which were discussed in the second section, it may be too quick to disregard socially mixing communities as a failure. The question therefore arises of how best to design shared spaces to engender and encourage interactions across social groups, with the potential to go beyond polite interactions to build a sense of community. This research investigates the levels, types, and experiences of interactions residents have in their shared spaces, whether this is related to deeper social connections within the community, and how these interactions and connections are linked to residents' sense of community. It is considered the findings could then be used in conjunction with wider academic theories on the importance of spaces such as community centres and libraries (Amin, 2002) to connect the wider residential population.

2.7 Conclusion

With this research into the importance of urban design and the layout of housing developments and amenities in mind, it is imperative to remember that we cannot take a purely deterministic approach: following the guidelines of urban design discussed previously set out by Hertzberger (1991), Talen (2008), and others does not necessarily equate to the perfectly diverse and integrated communities which the policies seek. If this was the case then there would not continue to be such discussion over the potential positive and negative externalities of enforced socially mixed neighbourhoods. It is clear there are a number of other factors at work which influence the ways in which individuals perceive and use space, and the ways in which encounters and interactions with neighbours are held. The study of the East Village in Stratford offers the chance to research a site in which there are not the same tensions between old and new residents as in a typical urban renewal project, as all residents moved in in around the same time. The explicit aim of this project was to encourage social mixing and interaction, and numerous shared spaces and local facilities have been provided in the hopes of engendering this. Without this historical stigma to overcome or the displacement of former residents, theoretically the mental spatial boundaries in place for different residents should be minimised, with a positive image promoted from the start (Camina and Wood, 2009) This gives the opportunity to look at how these new spaces are used and experienced, and what kind of community has grown.

Finally, it is important to highlight the fact that this research focuses purely on the interactions and connections between neighbours made in the informal meeting spaces. The importance of more formal meeting opportunities have been the subject of much research, as discussed in Section 2.6 of the literature review. Subsequently the aim here is not to ignore the broader context of the neighbourhood, but to take the opportunity to better understand residents' experience of the informal shared spaces, and the influence they can have. This is done with the recognition that rather than being mutually exclusive, formal and informal meeting opportunities could work in conjunction with each other, where contacts formed in one sphere may cross into the other.

3. Conceptual Model

Building from the literature outlined previously, the main aim of this research is to investigate the potential role of shared informal meeting spaces on the level of intergroup and intragroup interactions within socio-economically mixed neighbourhoods, and the extent to which these generate a sense of community. The conceptual model shown in Fig.2 describes the processes and expectations to be investigated in this research. These were reached through examination of the existing literature, and have been previously noted throughout the literature review section: they are grouped together here for clarity and ease of reference.
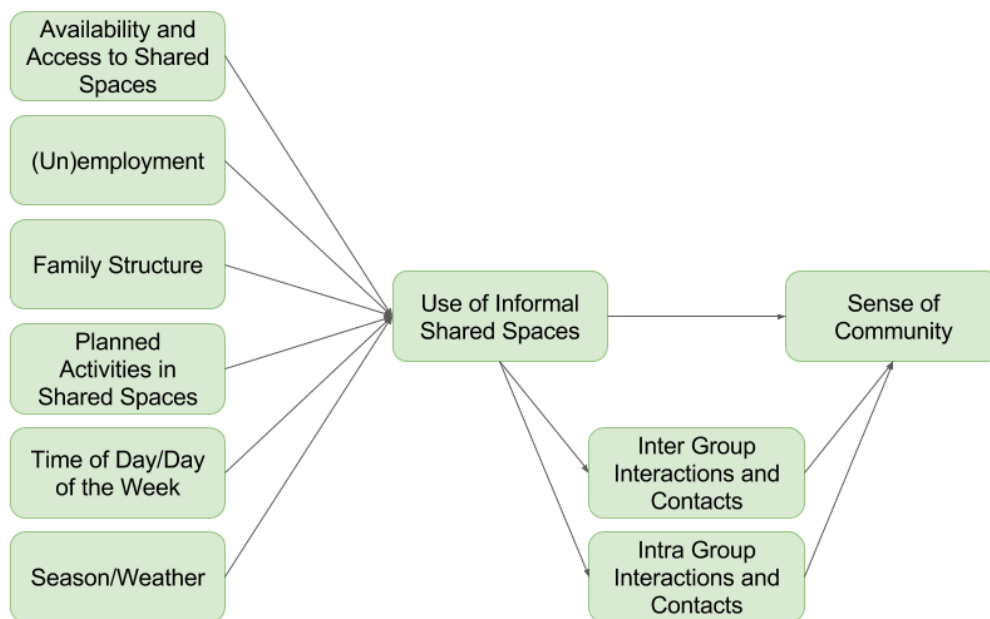
Fig.2: *Conceptual Model: Use of Shared Spaces in a Socio-Economically Mixed Neighbourhood*

This research focuses purely on the use of informal shared spaces. These are spaces all residents have access to, which they may use as they wish. These include parks, courtyards, and access areas such as shared entrances, hallways, and lifts or stairwells. All of these are present in the case study used in this research, and will be discussed in depth later.

Firstly, it is considered there are a number of factors which may affect the extent to which residents make use of the informal shared spaces within their neighbourhood. The *availability and location* of spaces is expected to influence both their users and uses. It is expected that spaces which residents see out on to and pass through to reach other facilities will be used more extensively than those which are less visible or central. Spaces which are surrounded by a variety of housing types and a mixture of other facilities, such as shops and cafes, are expected to have a greater variety of users as well as uses. This is due to the fact people will be attracted to the space for different purposes; passing through to get home, relaxing with food and so on. Access and availability can also be seen in the broader context of the surrounding area; where there are other spaces readily available outside of the housing development, this may dilute the volume of people making use of the space for prolonged periods, as they may have a preference for another area.

Employment status is expected to influence individual's use of the shared spaces in the sense that those who are out of employment spend more time in the neighbourhood through the day, and therefore have more opportunities to make use of the spaces. It follows that those in employment have different time-frames when they are able to use the spaces, and as such his may limit the contact the two groups have with each other. This is also relevant for the indoor shared access areas, which are expected to be used at different times of the day between these two groups; those in employment will mostly use the areas when they leave for and return from work, meaning those not in employment may not cross paths with them.

Family structure of resident households is expected to influence their use of the outdoor shared spaces: those with children are expected to use the spaces more frequently and for longer periods of time, particularly as the majority of units on the site do not have private garden areas. Those without children are expected to be less likely to use the spaces regularly or for prolonged periods, as they have less of a requirement to do so. This may mean residents are more likely to use the spaces at the same times, and in the same ways, as others with the same family structure as themselves.

Following from the discussion of more formal meeting places and the importance of *planned activities* in facilitating interactions, it is expected that when specific structured activities are planned in the outdoor spaces the volume of users will rise. This could include fairs or sporting activities. It is further expected that residents will be more open to interacting with their neighbours at this time, as they are sharing in a common activity.

The *time of day* is expected to influence use of the shared spaces in terms of both volume of users and the purpose with which it is used. In the mornings there are expected to be fewer users, with people using the spaces to pass through on their way to work or school. Around lunch time, it is predicted there will more visitors using the outdoor spaces to sit in their breaks. Finally, towards the end of the day it is expected there will be a mixture of users passing through the spaces on their way home from work and people using the spaces for activities after school and so on. The *day of the week* is also expected to be a factor, with use at the weekend predicted to be higher and more varied, as the majority of residents will be available through the days to use the spaces rather than being restricted by work or school.

The *weather*, and more broadly the *season*, is expected to influence use of the outdoor shared spaces, as they are largely designed for fair weather. It is predicted that use will peak when the weather is warm and clear, and overall in the summer months. This seasonality is also tied to the influence of family structure, as it is expected overall use will rise when there are school holidays as local children have more time available to spend in the neighbourhood.

Secondly, it is considered that the extent to which residents use the informal shared spaces may influence the number of interactions, and subsequently contacts, they have within the neighbourhood. Intra group interactions are those within the same socio-economic group, where tenure is used as a proxy to measure this. Inter group interactions are therefore defined as those with residents of a different tenure.

Overall, it is expected that residents who make use of the shared spaces regularly will have more, both intra and inter group, interactions, as they are more likely to cross paths with other users. However, it is expected this influence will be stronger for intra group interactions, as inter group interactions may be limited by the extent to which different groups use the spaces at the same time. This was

discussed previously, and involves factors such as employment schedule and family structure determining daily schedules of residents. On top of this influence of the extent to which residents make use of the spaces at the same time, it is expected that even when residents do use the spaces at the same time as other groups, they will be more likely to interact with those similar to themselves, as previous research shows people tend to make connections based on common factors. It is further expected there will be peaks in interactions created by the planned activities discussed previously.

Of the interactions which do take place, it is expected some of these will lead to deeper social connections and local ties. Therefore it is expected that those who use the shared spaces more, and interact with others more, will have more local contacts. Again this may vary depending on the residents, and for example even if many inter group interactions take place, it may only be that the intra group interactions lead to deeper relationships. It is accepted that not all local connections will begin in the informal shared spaces, they could for example result from use of other more formal meeting opportunities in the neighbourhood, such as the school. However, looking purely at the interactions in the shared spaces, a greater number of interactions in this context is still expected to have a positive influence on the number of local contacts.

Third, it is considered the level of interactions and contacts residents have with their neighbours may influence their sense of community. It is expected that those who interact more with their neighbours, both within and between groups, and build up contacts within the community, will have a stronger sense of community. This is expected to hold true even when interactions do not lead to stronger connections, and the interactions in themselves may be enough to generate a sense of community. Drawing from research into collective efficacy, residents do not necessarily need to build strong bonds with each other to share similar values and work together to maintain the structure minimise the social disorder of their neighbourhood (Sampson, 2012). Similarly then, residents may have that sense of community from having a shared investment in their development without need for stronger local connections and ties to be formed.

Finally, it is considered the use of informal spaces itself may influence residents' sense of community. It is expected that even when residents do not interact with other users in the shared spaces, using the space and observing the other users will help to build public familiarity of other groups, improving their knowledge and understanding of other individuals or groups. This knowledge and awareness of their neighbours is expected to positively influence their sense of community.

Ultimately, it is these inter and intra group interactions and contacts, and the sense of community which may arise, which are necessary to generate many of the proposed 'community-level' effects discussed previously. As such, through investigating the above expectations in a case-study format, this research aims to give a fuller understanding of the experiences of residents and the extent to which these informal meeting spaces are used and can engender these interactions.

4. Methodology

The research questions were addressed through the study of the East Village housing development in London. A qualitative approach was adopted as this is appropriate to address the research questions and gave the opportunity to understand not only how residents use spaces and interact, but their reasoning for this, how they experience the space, how they perceive and experience the local community, and how this links to their lives and social connections more broadly.

4.1 The Site

The East Village development is the conversion of the Olympic village following the 2012 games. It is selected as a recent housing development with the explicit aim of increasing mixing of socioeconomic statuses in a bid to regenerate the wider Stratford area. The East Village is located in the ward of Stratford and New Town in the borough of Newham. It's location in London is shown in Figures 3-4.

2km   *Fig.1: East Village in London, Google 2016*

200m   *Fig.4: East Village in Stratford, Google 2016*
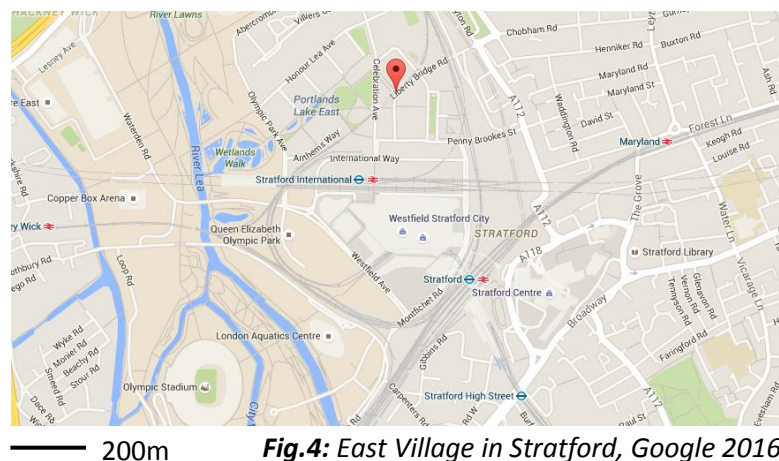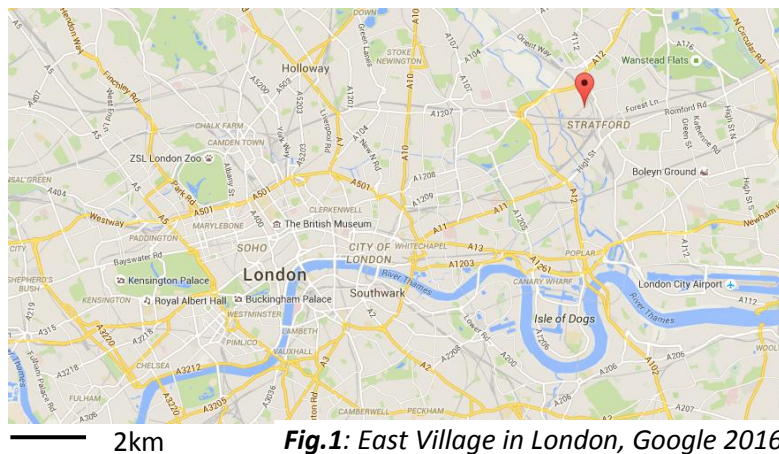
To give an overview of the area, Table 2 gives the most recently available key statistics, although it should be noted that not many figures are available on the ward level.

	London	Newham	Stratford and New Town
Population [ONS, 2014b]			
2007	7,693,473	266,285	14,312
2011	8,204,407	310,460	17,999
2015	8,632,850	338,000	19,870
Crime Rate (per 1000) [Metropolitan Police Service, 2016]			
2006/07	121	138	-
2010/11	102	115	-
2014/15	84	90.8	204.9
Average Income (Gross Annual Pay, £) [ONS, 2014c]			
2007	31,484	27,234	-
2011	34,396	29,998	-
2014	35,069	29,076	-
Unemployment Rate (%, age 16-64) [ONS, 2016]			
2007	6.8	10.5	-
2011	9.3	15.5	-
2015	6.1	9.1	-
Social Housing (% Rented from Local Authority/Housing Association) [Census Data, 2011;ONS, 2014a]			
2011	23.7	30.4	31.8
2014	23.1	31.4	-
Housing Benefit Rates (per 100 over aged 18) [DWP, 2015]			
2009	12	16.8	-
2011	12.9	15.2	-
2015	12.2	14.7	-
% Black, Asian, and Minority Ethnic (BAME) [Census Data, 2011; GLA population Projections, 2013]			
2011	40	71	59.2
2013	40.2	71	-

Table 2: *Area Demographics*

These figures indicate a borough, and ward, which is more diverse in terms of ethnicity and socio-economic status than London as a whole; the percentage of Black, Asian, and minority ethnic groups for Newham is 30% higher than for London overall, and the percentage of social housing is 8% higher. It is also an area which suffers from higher unemployment, lower average income, and a higher crime rate than London overall. However, it should be noted the rate for the ward of Stratford and New Town is highly distorted by the Stratford Mall and Westfield Shopping Centre, which are shown to attract an extremely high concentration of thefts (Metropolitan Police Service, 2016).

The East Village consists of 2800 apartments across 11 mid-rise blocks; a plan of the development is shown in Fig.5. Half are owned by the social housing consortium Triathlon, and these 1400 apartments are split between 50% social rented, and 50% "affordable" homes: 25% Government subsidised intermediate rented and 25% shared ownership. Of the shared ownership properties, half were reserved for those with incomes between £20k and £38.9k, with priority for housing association and

council tenants as well as first-time buyers (This is Money, 2013). To be eligible for the remaining shared ownership homes, annual household income must be less than £66k for one and two bedroom homes and below £80k for three bedroom homes (Triathlon, 2016). As an indication of the intermediate rent prices, a two-bed apartment to rent is (at the time of writing) available for £1400 per month with eligibility requirements of a minimum income of £48k and a maximum income of £71k (Triathlon, 2016). The median gross income in London is £33.2k (Annual Survey of Hours and Earnings, 2015). The remaining 1400 properties are managed by Get Living London which rent on the open market, priced from £340 per week for a one-bed apartment, £395 per week for a two-bed apartment, and £500 per week for a three-bed townhouse. Construction is currently underway for 2000 additional private rented units, to be built in high-rise towers of up to 36 storeys.
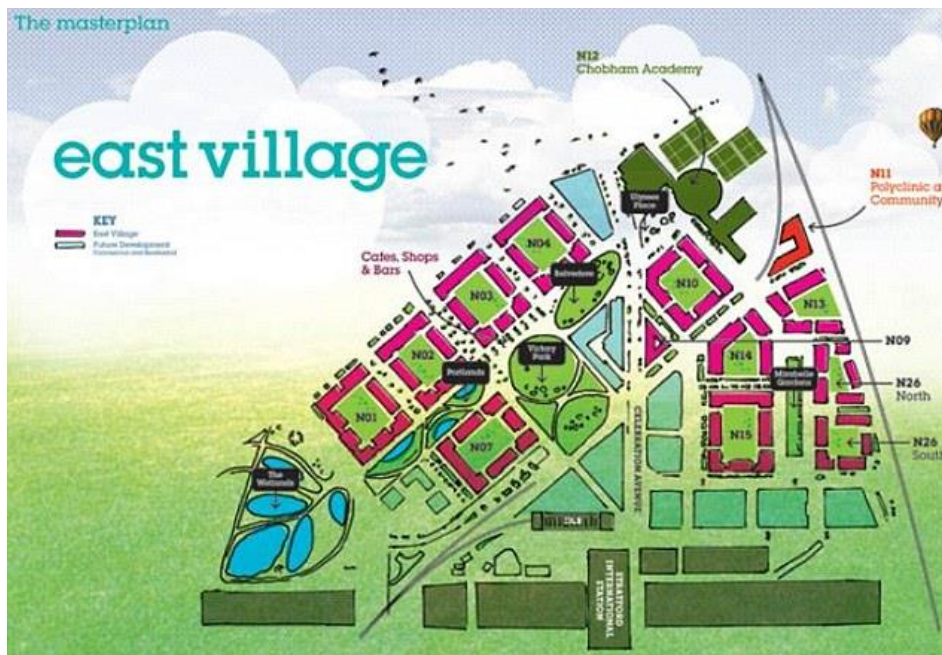
Fig.5: *East Village Master Plan (This is Money, 2013)*

In an interview with the Standard newspaper in 2014, the then chief executive of Get London Living, Derek Gorman, revealed the demographics of the privately rented accommodation. 31% are aged under 25, another 31% are aged between 25 and 30, 25% are aged between 30 and 40, and just 13% are aged over 40. Around 55% are male and 45% are female, whilst the married-unmarried split is 16% and 74% respectively (Evening Standard, 2014). According to Gorman, there are fewer families residing in the private rented accommodation than was hoped for, with the townhouses more often occupied by groups of shared renters. Unfortunately this same data is not available for the properties managed by Triathlon.

In terms of the socio-economic distribution of residents, it is not quite the pepper-pot pattern described by Kearns et al (2013): the social rented apartments are either contained within separate blocks or on one side of a block. The townhouses have their own separate entrances, but on each side of the blocks there are then shared entrances and lifts for access to the apartments. Each of the 11 blocks has a central courtyard, there are several shared central parks and play areas, and an exercise area. There are also numerous shops, cafes, bars, a gym, a health centre, and a school close by. The shared spaces and other amenities are discussed in greater detail in the analysis stage.

4.2 Data Collection and Analysis

4.2.1 Interviews

17 semi-structured interviews were conducted with residents, and the split of participants is shown in Table 3. In line with Bryman's (2012) guide that the interviews should continue until no new information is being provided, this will be adhered to as far as is feasible within the time scale; many of the views expressed concerning the key issues were repeated across the participants, which I will return to in the analysis section. Participants were identified by delivering a leaflet explaining the research to residents' letterboxes (shown in Appendix 1), by posting the details of the research and requesting volunteers on the residents' Facebook group, by talking to people using the shared spaces, and by going door-to-door.

		Number	% of Respondents
Gender	Male	7	41.2%
	Female	10	58.8%
Tenure Type	Private Renting	10	58.8%
	Affordable Homes	2	11.8%
	Social Renting	5	29.4%
Household Type	Single/Couple Household (no dependent children)	13	76.5%
	Family Household (1 or more dependent children)	4	23.5%

Table 3: *Distribution of Participants*

Semi-structured interviews were used to ensure that comparable information was received across the interviews, without limiting the information collected to that prescribed in my initial questions. This allowed some flexibility in the interview process and for additional questions to be asked as appropriate and relevant. The initial list of pre-planned questions can be found in Appendix 2.

The interviews were recorded and transcribed afterwards. In terms of analysis, the interviews were first coded using open coding to determine the themes and topics which arose in the interviews. Axial coding was then used to determine common themes. Coding in this way allowed the categories to arise from the data, and for comparisons to be made between the interviewees, rather than sorting the interview responses into pre-conscribed categories. The coding tree which was derived can be seen in Appendix 3.

4.2.2 Observations

Observations were also carried out, completed by myself to help ensure consistency between the observations. This form of data collection was considered appropriate as it allows an insight into the uses of space and the contestations between different users, and between the space as conceived by planners and the space as lived and experienced (Low, 2000). This form of research is therefore employed with the aim of understanding the use of space and the social interactions which take place from the perspective of the participants (Bailey, 2006). The schedule for the observations is shown in Table 6. It is considered that the use of spaces may vary throughout the week, for example during the week when residents are at work or school compared to the weekend when residents may have more time to use the spaces and to use them differently. Further, users and uses may vary depending on

the time of day and as such morning, afternoon, and evening slots were allocated. The morning slot was timed to coincide when the majority of employed persons would be heading to work and children will be going to school; the afternoon slot covers the lunch period when people may use the outdoor spaces more; and the evening slot coincides when people would be returning from work through dinner.

Day	Timeslot		
Weekday	08:00-10:00	12:00-14:00	17:00-19:00
Saturday	08:00-10:00	12:00-14:00	17:00-19:00
Sunday	09:00-11:00	12:00-14:00	17:00-19:00

Table 6: Observation Schedule

Firstly, observations of the surroundings, participants, and actions were detailed. It is considered that the physical surroundings have important social implications for how spaces are used and experienced, and as such notes on the size, lighting, colour, sounds, smells, and objects were made (Bailey, 2006). Observations of the participants, the users of the shared spaces, including their physical characteristics such as age, gender, appearance and so on; their behaviours; and their body language were noted (Bailey, 2006). Lastly, observations of actions, such as the behaviours of individuals over time, and also notes of the actions *not* witnessed were made (Bailey, 2006). Observations were partially structured prior to the field research taking place, with the time, location, and an initial observation guide decided upon detailing what should be observed to ensure the observations for each day could be compared later. The initial observation guide is shown in Appendix 4. Brief notes made during the research were written up into full field notes as soon as feasible after the research took place to ensure as much detail as possible was recorded and can be analysed. In line with Bailey's (2006) description of typical field notes, they include detailed descriptions of what was observed, initial analysis of the events and observations noted, personal feelings when conducting the research, and reflexive thoughts on my involvement in the research. Finally, after the first observation period, notes were made of any additional things to be observed in the second period.

Secondly, much as Whyte's (1988) research of public spaces made use of cameras to record individuals' pathways through space as well as mapping the characteristics of people and activities taking place in the spaces, movement maps were created at hourly intervals. The pathway of each user was mapped over a 10 minute observation period, making note of their age, gender, direction, and any significant behaviour (Low, 2000). These maps can then be used to describe 'rivers' of movement that make up time-geography paths, and to analyse how they are segregated by user characteristics.

Thirdly, behaviour maps were also created at hourly intervals, by noting group activities by time and place in order to see how the different activities and categories of individuals are scattered over space and how this may change over time. In combination with the movement maps, these can then be used to show the social and spatial boundaries which may be in place (Low, 2000).

Finally, photos were taken throughout the field research to capture the environment, the users, the behaviours, and the interactions taking place. These will be used to help situate and supplement the written observations. Combining these types of research allows the social and spatial boundaries which exist within the shared spaces to be distinguished, and identify any distinct locales based on age, class, and gender for example (Low, 2000). The movement and behaviour maps help to provide

more quantitative evidence of the use of space to support the analysis of my qualitative observations, and are used in conjunction with the interviews to address the research questions (Low, 2000).

4.2.3 Ethics and Safety

In considering the ethics of conducting this research, the potential impact of the research on residents was taken into account, and the identities of participants are not revealed. Interviewees were asked to read and sign a consent form before the interview was conducted, which is shown in Appendix 5. This outlined what their responses would be used for, how the recordings would be securely stored, and that their responses would be anonymised when transcribed (all names recorded here are fictitious). The interviewees were informed that they were free to withdraw from the research at any time. It was not practical, and would have obscured the research, to seek permission from all individuals who were observed. However, the observational data collected does not directly identify any individuals and the observations were not covert: residents had received a leaflet about the research I was conducting and I did not conceal what I was doing (Bryman, 2012).

In the interests of my own safety when conducting this research, I made sure to inform someone where I was going when conducting the observations and interviews, and a time scale of when I should be finished. I ensured someone was aware of the address where the interview was taking place, and that I had my phone on me.

4.2.4 Limitations

One potential concern is whether the number of participants can be said to be representative of the residents as a whole. However, as stated previously, as far as possible the interviews did continue until there was significant overlap in what was said by each respondent. One limitation is that those living in private rented accommodation are slightly over represented in the sample; nearly 60% of participants are from this sector representing 50% of residents overall; whereas those in affordable homes are underrepresented, with just 11% of the sample coming from this sector when 25% of residents live in this type of accommodation. However, taking the proportions of participants in properties managed by Get Living London and Triathlon more broadly, we see a slightly more even split; 59% and 41% respectively where in reality 50% of residents live in each. Through the combination of approaches employed to reach interview participants, it is felt that as broad a range as possible of the residents were contacted and given the opportunity to participate. However, it is probable that there remains some bias in that those who responded to my request were likely those who are most involved in the local area or those who hold the strongest views, positive or negative, regarding the public spaces available to them. We return to these concerns in the Discussion section, particularly of the underrepresentation of those living in affordable homes, where there is detailed consideration of the potential influence of the sample on the results.

5. Analysis

The analysis is split into four sub-sections in order to address the overarching research question of: *How do residents from different socio-economic backgrounds use and experience shared spaces in mixed housing developments, and what is the role of the shared spaces in encouraging interactions and a sense of community between these groups?* Each of these is taken in turn below, combining the observational and interview data, with a brief conclusion drawn from each in relation to the main research question. This is then brought together in Sections 6 and 7, the Conclusions and Discussions sections, to fully answer our main question in relation to existing theories and research.

5.1 What shared spaces are available?

We firstly address the sub-question of *what shared spaces are available?* This section is largely descriptive of the spaces residents have access to, whilst their use and experience of the spaces is addressed in subsequent sections. As was briefly outlined in the methodology section, there are a number of shared spaces available to residents. Much of the focus of London's bid for the 2012 games was on the legacy which would be created for the wider area: "Stratford lies at the centre of the most deprived part of London and surrounded by communities whose levels of employment, income, educational attainment, quality of health and life expectancy are the lowest in the country. A celebrated legacy of the Olympics was to be its social and community impact; in the words of the bid, 'transforming the heart of east London for the benefit of all communities who live there'" (Ward, 2016, p.117).

In terms of design, this focused largely on the creation of huge open spaces in the form of the Queen Elizabeth II Park and the plans for a considerable amount of housing to be built after the games. Housing was a focus mainly due to the reliable income it would generate, the predictable development plan it would follow, and the idea that it was more tangibly linked to the theme of legacy for the local community (Ward, 2016).

Figures 7-18 give an impression of the shared areas present in the East Village (photos taken by author unless otherwise stated). There are four main public spaces within the East Village; Victory Park, Portlands, Belvadere, and Mirabelle Gardens. Please refer to the East Village Master Plan (Fig.5) for their comparable locations. Victory Park is the largest of these, and is largely open green space. Leading from it to the waterglades and out to the Queen Elizabeth II Park is Portlands, a narrow wetland area with a winding path and bridges crossing over the water. On the other side of Victory Park is Belvadere, with a large seating area and play area for children. Lastly, across the main road in the centre of the other half of the housing blocks is Mirabelle Gardens. It is narrower than Victory Park, but features flower beds, benches, open green space, and a playground for children.

In addition to this, each housing block shares an internal courtyard, accessible only to residents. Each dwelling also has private outdoor space; balconies for each flat and a private courtyard connected to the shared courtyard for the town houses. In terms of entrances, the town houses each have their own private entrance way and front door. The flats for each side of each block share a secure entrance way, where the post boxes are situated, and lifts to all floors.

Finally, there are shared facilities, though not strictly public, dotted around the East Village. These include various shops, cafes, restaurants, bars, gym, supermarket, school, and the Get Living London

office. The highest concentration of cafes and bars is bordering Victory Park and Portlands, whilst the gym, supermarket, and a couple of other restaurants are located across the road with the other housing blocks. However, it is apparent from the marketing of these shops, for example branded as 'boutique', 'artisan' and so on, that they specialise in high end, high priced products. There are no reasonably priced cafes or chain restaurants in sight, and it is clear the commercial side of this development is targeting only one half of its residents. This exclusivity is discussed in detail in later sections in relation to residents' experiences. It should be noted there are also a number of vacant commercial lots, which may be due to the proximity of Westfield shopping centre.

Fig.7: Housing Blocks and Victory Park

Fig.8: Housing Blocks from Liberty Bridge Road

Fig.9: Victory Park

Fig.10: Gorilla Statue in Victory Park

Fig.11: Mirror Labyrinth in Victory Park
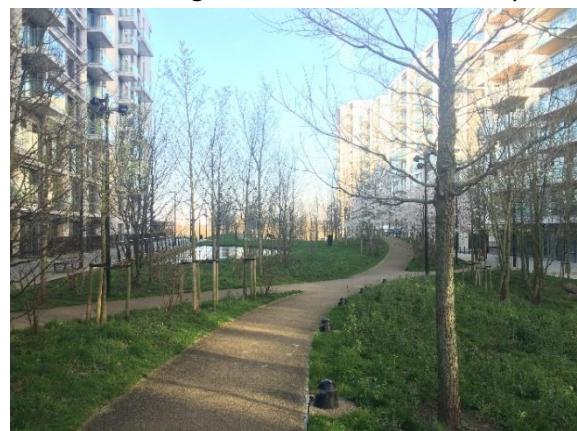
Fig.12: Portlands

Fig.13: *Belvadere (and construction site)*

Fig.14: *Mirabelle Gardens*

Fig.15: *Shared Inner Courtyards (Triathlon, 2016)*

Fig.16: *Private Inner Courtyards (Triathlon, 2016)*

Fig.17: *Get Living London Office by Victory Park*

Fig.18: *'Neighbourhood' Restaurant and Bar*

The focus of the observational data was on Victory Park, in the centre of the housing development. This site was chosen as it is marketed as the "green lung" of the East Village (Our Parks, 2016). It is surrounded by commercial sites as well as housing, is directly looked over by two of the housing blocks, and is the most obvious and accessible of the East Village's open spaces for passers-by from the main road, shopping centre, and Stratford International station. The park itself is rectangular with paths down each side and two paths crossing diagonally through it. The edges of the park are lined with trees, and there is a paved area in the centre with benches facing in towards each other. Providing some visual interest, there is a gorilla statue on one side of the central area, and a 'Mirror Labyrinth' and wildlife area on the other. There are lights along the diagonal paths for use at night.

There are a number of activities which take place in the park advertised through the 'Get Living London' and 'Our Parks' websites and social media. These include a chocolate festival earlier in the year, weekly exercise classes in the summer, and the recent addition of outdoor cinema screenings in the summer months (Get Living London, 2016; Our Parks, 2016; Where is the Nomad, 2016). With all of this advertised activity, it became the most logical place to observe within the development: if community was thriving and cross-socio-economic interactions were occurring anywhere in the site then surely it was here. This exclusivity did not extend to the interviews, and residents were encouraged to discuss any and all of the spaces they used.

Having identified the spaces which residents have access to, and their location relative to other local facilities, the subsequent sections of analysis investigate who use them and in what ways, who they interact with, and how this is linked to residents' sense of community. In answering these research questions, the extent to which the expectations detailed in the conceptual model in Section 3 are supported is addressed.

5.2 Who uses the spaces?

We now turn to look at *who uses which shared spaces, and for what purpose?* Combining the interview and observational data enables us to get an overview of the users and uses of the shared spaces. We begin by looking at the movement and behaviour maps which were constructed for Victory Park over the course of the observation periods, which gives a general impression of the peaks in usage and the location of activities. After identifying the patterns in use and trends in users, we turn to the interview responses to gain a fuller understanding of what is happening not only in Victory Park but in the rest of the shared spaces, from the perspective of the residents.

Movement and behaviour maps which exemplify the patterns observed for morning, afternoon, and evening uses are shown in Table 4. The complete set of movement and behaviour maps can be found in Table 5 and 6 respectively, in Appendix 6.

Morning	
Wednesday, 08:50-09:00	Saturday, 08:55-09:05
Afternoon	
Saturday, 12:50-13:00	Sunday, 13:45-13:55
Evening	
Wednesday, 17:50-18:00	Saturday, 17:50-18:00
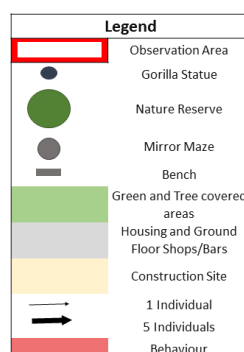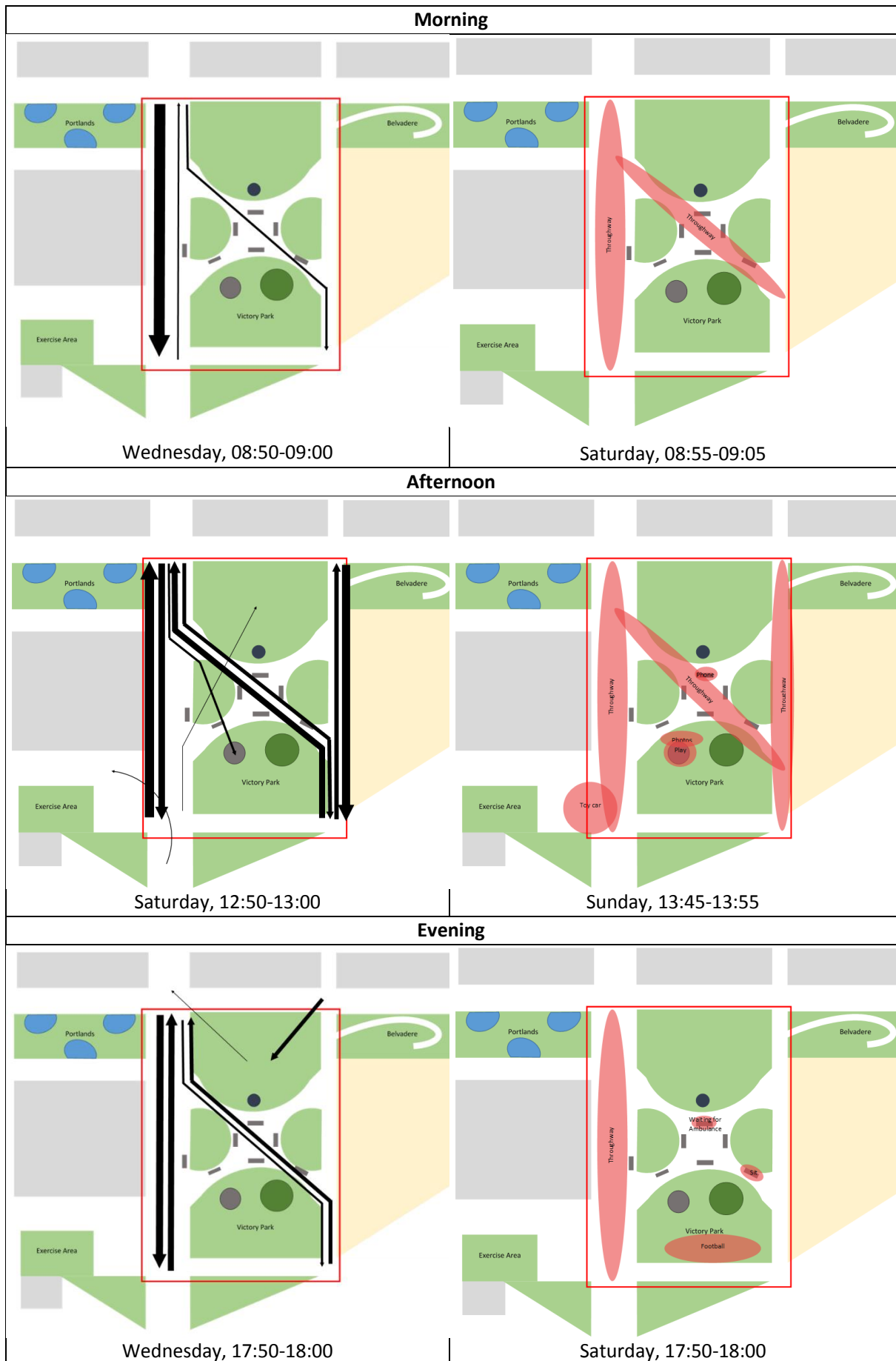
Table 4: *Selected Movement and Behaviour Maps for Victory Park*

The movement and behaviour maps indicate that there are definite trends in use of the park, both in terms of fluctuations through and between the days and which areas see most use.

It was expected that the weekend would be the time when most people used the area, as more people have the time available. Strong support for this is found in the observations, where it is apparent that the weekend is when the park has the highest volume of users: 214 individuals were observed over the 6 ten-minute observation periods on Sunday compared to 183 on Saturday and 145 on Monday. The time of day is also a clear factor, with the lunch time hours seeing the highest footfall across the weekend, in line with our expectations. For example, on Saturday 100 people were counted over the two ten-minute observation periods at lunch time, compared to just 59 in the morning and 24 in the evening. However, this did not hold true for the weekday where our expectation was contradicted. People were more evenly distributed through the day and the evening was the busiest time: 45 people were observed in the morning, 42 over lunch, and 58 in the evening. On all three days, the weather was bright and sunny for the majority of the time, but there was light rain beginning in the last observation hour which may have cut short the activities taking place at this time, along with the fading daylight. This is explored further through the interview data shortly.

There are also trends in terms of the mix of users. Looking at the average for all three days observations reveals the following: in terms of gender, 58% of those observed were male, and 42% were female. Based on observations only, 56% of people using the park were aged roughly 19-30, whilst 21% were aged under 18 and 17% were aged 31-45. This leaves just under 6% aged over 45; an overwhelmingly young demographic. With regards to ethnicity, 72% were white (although not necessarily British); 15% were black; and 13% were Asian. 45% of those observed were alone, whilst 55% were with one or more other people. Overall, the majority of these patterns in the split of users did not change dramatically over the time of day or day of the week, however we did see a difference in the proportion of users based on age: whilst those aged between 19 and 30 were consistently the largest group, the proportion of those aged under 18 did vary. There were much more users in this age range over the weekend, particularly over lunch time and in the evening, whereas on the weekday observed the volume was much lower and mainly concentrated in the evening. This can of course be explained by the fact that residents in this age group have school to attend on weekdays, meaning they cannot be around the development. Secondly, there was a noticeable upward trend as the days progressed in the proportion of users who were in a pair or a group. This was most striking on the weekday, where in the first observation period 80% of users were alone, falling to 44% over lunch time, and just 29% in the evening. Although not as dramatic, this trend is repeated on the weekend observations. It is considered this could be contributed to the high volume of individuals who pass through the park on their daily commute, whereas people are more available for socialising in their breaks and after work. It is important to remember these figures are based only on a count of users over 18 ten-minute periods. However, alongside the more prolonged general observation notes, they can be used to gauge an estimate of the typical users and uses of the park.

Finally, on the basis of written rather than numerical observations, it was clear that it was not only residents using the park but tourists and non-locals as well; one man asked me for directions to the station, and other individuals were observed taking photos of themselves with the gorilla and reading the informational board, which would not be expected for people who are familiar with the park. This again was more frequent over the weekend, with no 'obvious' tourists observed over the weekday.

This is not unexpected, and is likely influenced by the people's availability to take trips over the weekend when there are less likely to be work or school restrictions.

Whilst the movement maps and observations indicate that footfall through the park is reasonably high, the behaviour maps show that the number of activities taking place is fairly low. The vast majority of people use the park simply to pass through on their way to another destination: a theme throughout the observations is that of the number of people in exercise wear on their way to or from the nearby gym, and of people with Sainsbury's bags returning home with their food shopping. The common paths people take are indicated by the ovals marked 'throughway' on the behaviour maps, showing these are areas people walk through rather than stop for any length of time. With the volume of individuals observed on the weekday morning it is clear this is also a path through to the station and other transport links along the main road for many residents. Exceptions are occasionally made by those who sit on the benches whilst they eat their lunch or talk on the phone, but the majority of more lengthy use of the park is made by children. On both days of the weekend a group of children played football at one end of the park for approximately an hour each time, and throughout the observations various children with their parent or parents passed through and played in the mirror maze or with the gorilla statue. A final activity worth noting is a yoga group of approximately 15 people observed on Sunday, largely comprised of white women in their 20s to 40s, who appeared to use the park frequently for their meetings. However, overall it is the main walkway which sees the most use, followed by the paths crossing through the park, whilst the grassed areas remain unused for the majority of the day.

These patterns in uses are fairly consistent with expectations that uses would be more varied in the evenings and at the weekends when a greater proportion of the residents is available, whilst mornings would primarily be reserved for people passing through. Considering the expectation that spaces which residents have to pass through to reach other facilities, this does appear to be supported here, with the majority of users cutting the shortest path through the park on the way to their destination. With the supermarket so close, this also appeared to influence the number of people who pause on the benches on their way through: if they did not have to return to their home through the park with their lunch then people may not make a detour to sit and eat there. This finds additional support in the fact that very few residents mentioned spending prolonged periods of time in the other open spaces around the East Village, mainly passing alongside them on their way elsewhere.

Residents were interviewed on their use of Victory Park and other shared spaces, allowing us to identify any trends in use along socio-economic lines, and to gather explanations for the patterns in users and uses seen. Participants were asked what they think of each of the outdoor areas (each park and the inner courtyard for their building), whether/how often they used each of them, what they used them for, how long they tended to spend in the areas at any one time, and whether they go with anyone when they use the spaces. They were also prompted for explanations for the answers they gave, for example *why* do they not use a certain space, or spend longer in an area, as appropriate.

On the basis of the interviews, a pattern emerged that Victory Park tends to be seen by those in social renting apartments as a place for use by the more affluent residents and those visiting the area. When asked if he used the park, Ben, a social housing resident, stated:

Ben: Err, no, no, not really. I dunno, I don't think [pause] it's not for us over there ya know? We go through the garden here [Mirabelle Gardens] sometimes […] you always just see the rich guys over there, they jog round and stuff I guess. I think it's meant to be for them, not for people in the council houses I mean.

This idea of the park being for a certain type of user was repeated by a total of seven interviewees, which is which is considered to be a substantial proportion for an area advertised as the 'hub' of the community and supposedly accessible to all. When asked why he saw the park this way, Ben replied:

Ben: Hmm [pause] I guess just 'cos you never see anyone from the council houses over there. I never do anyway, when I go past down the road and that [pause] but yeah I mean you've got the housing office for those flats [Get London Living] right there, and you can tell all the flats round it aren't council, with all the shops and stuff underneath [pause] so yeah I guess that's why I kinda feel that's their space

It is here that the issue of the development not being truly 'pepper-potted' with different tenures comes to light, working to exclude some residents from spaces they were intended to use. This is also in contradiction to the expectation that spaces surrounded by a variety of land uses will attract a larger variety of users and uses. Whilst the uses of Victory Park were more extensive and more diverse than were mentioned by residents for the other shared areas, its location relative to other facilities has also worked in a way to exclude certain users, thereby reducing the potential diversity of residents present. It is considered that close attention should be paid to the *types* of amenities which are set up around a public space: as discussed in the previous section, the shops and cafes available are fairly high-end, and therefore not accessible to those in the lower-income brackets. For some residents, this has evidently helped to define Victory Park in the same way, as designed for use by the more affluent clients of those amenities. Overall, employment did not appear to have an effect on the extent to which the shared spaces were used, as all interviewees cited they were most likely to use the outdoor areas on weekends, either because this is when they had the time to or this was when they could use the space with friends and family. Given the above, it is considered that employment status may, along with tenure, influence the spaces residents choose to inhabit rather than the times they do so. The focus therefore shifts from employment as a constraint on availability, as proposed in the expectations, to a marker of social standing and disposable income limiting residents' comfort using certain spaces.

However, the distinction in users was not a view shared by all, with the remaining ten interviewees either stating they used the park occasionally or that they do not use it purely because they have no need or inclination to. When asked about her use of the park, Sarah, a social housing resident with two children aged seven and 11, stated:

Sarah: Oh, well I don't really no – I work and stuff, I pass through it you know but I don't really *go* there if you know what I mean. My kids do though, they like it down there and it's so close to the flat […] Yeah they go down, after school or something, they take their football, sometimes they'll meet some of Jamie's [her older son] friends down there or something

This is related to the expectation that households with children would use the spaces more often and for longer periods than those without: 100% of interviewees with children stated their children use the parks. However, for all of the interviewees the children were old enough to use them with their friends without supervision, meaning the adults themselves did not necessarily use the spaces more.

However, a common theme throughout the observations in Victory Park was of young families playing with their children, particularly in the mirror maze and with the gorilla statue, providing support for the idea that this group tends to linger longer in the shared spaces, using them as a destination and activity in themselves, rather than individuals who are alone and passing through. Children's use of the outdoor spaces was also dependent on the weather and time of year, as in response to how frequently her children use the space she replied:

> Sarah: It depends, in the summer or if it's dry then they like to get out of the flat so they'll go quite a bit, for an hour or so I guess in the evenings […] they'll stay out later in the summer, because it's light still and it gets them out of the house for the summer holidays!

This provides additional support for the expectation that there will be fluctuations in the volume of users and the uses seen over the course of the year. It is an important observation that Sarah is a social housing resident who lives across Victory Park from the supermarket and main road, whilst Ben lives on the other side of the road to Victory Park. As such it may be that this is the real division, with residents on the other side of the road simply incorrectly perceiving that it is only affluent residents using the park. It is also apparent that this distinction is not enforced by those in the private rented housing, who do not necessarily see the space as their own. None of the private renting residents expressed the thought that Victory Park was designed for any specific user. This is exemplified by Ellen, a private renting resident who mainly uses Victory Park to pass through on the way to and from the supermarket. When asked if she saw many people when she passes through, she stated:

> Ellen: Yes yes, usually there are other people there. Passing through or you know, with little kids or something […] I guess some of them don't live here exactly, or maybe they're here for the shopping or the Queen Elizabeth park, but yes you do see quite a few residents. Lots of different people, everyone uses it. As I say the kids seem to like it, there are always kids out

The use of the space as somewhere to pass through, or spend a short while sat out if it is warm was replicated by the majority of other interviewees, as well as being apparent in the observational data shown in Table 4, and Tables 5 and 6 in Appendix 6. When asked to expand on why she did not use the park more often, Ellen stated:

> Ellen: You mean why don't I go and sit out there? Well I guess if I'm going to go out to a park, I'd rather just go round the corner a bit further to the Olympic park [the Queen Elizabeth II park]. It's just much bigger, and you can walk round or sit a while [pause] I guess that's why yes, just because we have that big park so close

Despite the fact the park may not be used often for socialising, it is possible that residents still benefit from passing each other in this shared area, building familiarity and understanding in short but frequent intervals whilst maintaining a distance. Turning to the use of the inner courtyards, respondents were asked how much they used those semi-private spaces, and what for. All respondents stated that they did use the courtyards from time to time, with the typical responses on what they liked about the space being given by Vicky, an affordable homes resident, and Tom, a social housing resident:

> Vicky: It's quiet, it's nice. You can look out the window and see your neighbours down there so that's quite nice, everyone comes and goes

Tom: Oh well yeah, it's really nice just popping downstairs and you're out you know, you can go down with a cup of tea or something – you see people out there on the weekends and stuff if it's nice. But also people just, well I do, feel a bit more at home or something there, it's like you know it's a bit of your home so everyone goes down and we all share it 'cause it's everyone's. Not like, like the shops and stuff are only for the rich guys, but the courtyard isn't like that

This is echoed across private renting residents as well, with Matthew stating:

Matthew: […] yes, sometimes if me and Suzanne [his partner] go over to the shop we'll go and sit in the park on the way, or we'll take a coffee down to the courtyard. It's not like we go there all the time, but we do sometimes

We can see then, that even though the public shared space of Victory Park is not frequented by all residents, the courtyards are. As each complete housing block contains a mixture of tenures, mixing should at least occur on this scale, and the extent of interactions is addressed in the next section.

Finally, residents were asked about their participation in the activities which are organised in Victory Park. These range from regular sports clubs to one-off events such as a chocolate fair which had taken place a couple of weeks prior to the interviews. All of the interviewees stated that they did not attend any of the regular activities such as the yoga class observed on Sunday. This was attributed to a range of reasons, including that the individual preferred to exercise in private, or that the activities did not appeal to them, or they thought it would be expensive. This opinion is exemplified by Emma, a social housing resident who gave the following response when asked if she attended any of the sport activities:

Emma: No, no we don't go to the activities, no. All the sports, that's what they have isn't it. Who's got time for that? Plus, you know, it's *our* park we can use it when we want we shouldn't have to go to some club to use the park

However, when it came to the fairs and one-off events, much more people attended. A total of 15 of the 17 interviewees stated that they had been to at least one of these events, which clearly draw attendees from across the different tenures, including those who had previously stated they felt excluded from using Victory Park on a day-to-day basis. For example, Ben, who was quoted previously stating the park was primarily for private renting residents, attended the recent chocolate fair and stated it drew a large crowd.

This provides mixed levels of support for the expectation that when activities are arranged in the shared spaces there will be a more diverse range residents will be attracted. The type of activity is clearly important, with one-off events designed for anybody to attend doing considerably better at attracting a range of residents than activities which require a certain interest, skill, or financial and time commitments. On the basis of resident descriptions, the volume and diversity of users seen when these one-off events take place appear to be much higher than is regularly seen, successfully bringing individuals of different socio-economic groups together in the same space.

With the above trends in users and uses in mind, we will now move on to investigate the influence this has on the interactions and social contacts residents have within the development.

5.3 Who do residents interact with?

We now turn to look at who residents are interacting with when they do use the shared spaces, addressing the research question *what interactions do residents have in these sites, and does this lead to more local contacts?* The interview questions addressed this topic, and included whether the participants often saw anyone else who lives here, and where. They were asked if they ever speak to other residents, and how much. They were asked whether they thought the people (if any) that they spoke to where in the same tenure home as themselves. Residents were asked how they would characterise their relationship, or to describe their conversations; would they consider themselves friends? Finally they were asked about the organised activities, and if they went with anyone or spoke to anyone there.

In terms of general interactions with neighbours, Emma, a social renting resident, summarised as below. This represents a fairly consistent pattern of sentiments across the respondents, with people generally happy with their neighbours, but remaining on a distant level rather than close friends.

> Emma: Well, I mean I wouldn't say I *know* them, we're not best friends, but sure I say hi if we pass each other in the hall [pause] like, I'd chat to them in the lift but that's about it really yeah […] I've not had any problems with anyone no, no nothing like that – everyone's polite enough you know. Like you might see people out around in the courtyard or maybe up the shop, and people smile and stuff, say hello

From the observations and behaviour maps of Victory Park, it is not clear that there is much interaction taking place between residents; those that are not alone tend to be in pairs or small groups which they come to the park with, rather than interacting with new people once they are there for example. Matthew, a private renting resident, stated that he regularly used the courtyard with his partner, but went on to say:

> Matthew: I'm not going to go down there [to the courtyard] and just start chatting to someone, no. I would say hi or whatever if I walked past someone but that's about as far as it goes yeah

This is a persistent trend through all of the interviews, with the majority of interactions individuals described being 'light'; brief, unplanned encounters. Interviewees were then questioned on who of their neighbours they were interacting with. When asked what she thought of the other residents she occasionally interacted with, and whether they were of the same tenure, Hannah, an affordable homes resident, stated:

> Hannah: Erm [pause] I'm not too sure to be honest with you no. I think [pause] I think they're mostly private rented you know. There's not that many affordable places so I guess they are anyway, the people on this floor seem to dress pretty smart, go out to work in the morning same as me you know

When pushed on whether she ever spoke to anyone in the social renting accommodation, Hannah went on to say:

> Hannah: Honestly I don't know you know, I don't really speak to people that much like I say so it's hard to tell. Maybe, I mean I'm sure I must see people at least but everyone seems the same really

From the patterns in the interviews it seems people's interactions are fairly limited to the people they are aware live very close to them, for example meeting in the hall or the courtyard for their block.

Secondly, the expectation that residents will be more likely to interact with residents similar to themselves is not strictly supported: residents overwhelmingly stated that they were not aware of the tenure type of others they interact with, meaning the expectation that decisions will be made based on preference are difficult to substantiate. However, as was detailed in the previous section, certain spaces, such as Victory Park, work to exclude lower income residents through their surroundings. As such, it could be this limits the diversity residents individuals come into contact with, meaning more interactions are conducted within socio-economic groups as a result. However, it must be concluded that, without resident's being aware of the socio-economic status of those they interact with, this theory cannot be fully tested.

Further, there are some exceptions observed where the influence of 'opportunity' may be negated, for example the activities such as the fairs which all interviewees stated they attended may be an opportunity for people from different backgrounds to come together. When asked about whether they saw any of their neighbours or spoke to anyone when they went to these one-off events, the results were mixed. This is demonstrated by the responses from John, a private renting resident, and Sarah and Ben, social housing residents:

> John: Yeah I saw a few people, milling around, enjoying the fair. People pretty much came and went through the day, so it's not like everyone was there all the time though

> Sarah: Oo yeah, most people like to go down and see what the fuss is about, so there's usually quite a lot of the residents at these things. Yeah we saw some of the other families, the kids loved the chocolate fair of course […] yeah we said hi to people I recognise from around here

> Ben: Erm I don't think so [pause] not that I remember, but you know like I said it got pretty busy. I'm sure they were there somewhere

Overall, 12 of the 17 interviewees stated they saw people at the event who the recognised to be other residents. Of those, only 7 of those acknowledged or had a brief conversation with the other people they recognised.

In addition, in football games played by children on the Saturday and Sunday evenings, a mixture of children were observed. They ranged in ages from roughly eight to 15, and were a mixture of ethnicities. We have already seen that the park is thought of as somewhere the children enjoy playing, and somewhere they go with their friends when the weather is good. When asked about who her children go and play with, Sarah (quoted previously) stated:

> Sarah: Well like I say they go and meet Jamie's [her oldest son] friend, he lives nearby, and most of the time there's quite a few kids playing down there, coming and going so they go with that group […] yes the children who live round the park in these blocks all go down because it's so close and they're not right on a road so it's good

These two examples provide some degree of support for the expectation that when structured activities are held residents are more likely to interact. However, it is clear that this mechanism does not work for all residents, with some preferring to stick within their household.

As is clear from the earlier results in this section, respondents are not always aware of the tenure of those they are interacting with, making this expectation that activities will have a stronger influence on intra, rather than inter, group interactions difficult to investigate. However, it is considered that the fact residents are largely unaware of each other's socio-economic status may itself remove the barrier for initial interactions to take place in such a setting, making inter and intra group exchanges equally likely to be affected by the presence of an activity. Further, in terms of inter group interactions, the influence of activities appears to be particularly strong for children, who are more willing than their parents to interact with anyone of their peers wanting to play.

Overall, the majority of interactions people have within the neighbourhood were light, and did not necessarily equate with residents having more in depth contacts within the development. However, whilst the total level of connections may be low, some support exists for the expectation that those who interact in the shared spaces more will develop more contacts within the East Village. For example, when asked about the number of contacts he has in the area, Tom, a social housing resident, stated:

> Tom: Ah a fair few, you see the same people day to day so it just kind of happens. You see someone in the lift or something every day and you got to talk to them! So they're not my best friends, but we chat, we ask about the families and stuff yeah

However, this was not the case for all interviewees, with the outcome for approximately half of those who had regular brief interactions in the shared spaces being that although they had polite exchanges with multiple neighbours, this did not lead to anything more. For example, Ben, a social renting resident, stated most of his contacts are outside rather than within the development:

> Ben: […] They're not really my friends. I guess it was different where I used to live, everyone had been there forever, but here everyone kind of just goes about their day, no one's been here long or grown up here I guess […] I've always lived in London, and then we only recently moved up here, so most of my mates are dotted around where I used to live, or work and that

It is considered that for some of those for whom there was a correlation between level of interaction and number of contacts, this could also be including contacts they cemented in other neighbourhood contexts, for example more formal settings, highlighting the potential link between the formal and informal meeting spaces. We will return to this in subsequent sections. There was no apparent correlation between the number of social contacts and tenure type, with the volume of contacts residents have being mixed across all resident groups. It is interesting to note, however, that despite the previously highlighted lack of awareness residents have of the tenure type of their neighbours, the majority of deeper connections they do hold within the neighbourhood are within the same tenure type. It is considered this could be for a number of reasons, including as an outcome of the opportunity effects on initial interaction, and the subsequent influence of preference. As was discussed, limitations from daily routines and family structure may mean those from similar tenures are more likely to be in the same place at the same time, meaning interactions are more likely to take place within groups and ultimately leading to more intra group contacts. Alongside this, despite residents' initial lack of knowledge of the others' tenure type, those of a similar socio-economic status may find more in common in their light interactions, meaning these are the contacts they choose to maintain and build upon.

5.4 Connection to Sense of Community

This final section addresses the research question of *do residents who use the shared spaces have a stronger sense of community?* Reflecting on the data on who residents use and interact in the spaces, it is interesting to look at whether those who do use and interact in the shared spaces have a different, stronger, sense of community within the East Village than those who do not.

Building from the previous sections, we already have an idea of which spaces people tend to use and how, who they interact with and how, and the extent of their local contacts within the development. Residents were then asked whether they thought there was a good community in the East Village, and if they could explain or describe this. They were asked whether they thought the other residents were similar to themselves, and if they got along. They were asked whether they thought the mixed tenure housing was a good thing or not, and why. Finally, they were asked whether there were any problems they faced in the development, and in particular if there were any problems with other residents.

It was apparent from the interviews that, whilst overall residents felt the mixed tenure housing was a good idea, there were some negativities associated with it. This was not attributed to the individuals in the other tenures per se, but the differences compared to if the area was single tenure. Likewise, the positive aspects of the mixed community people described were not related to their neighbours individually, but to the cumulative benefits brought about. Ben, a social housing resident, encapsulates both of these trends in his statement:

> Ben: […] I mean it means the area looks nicer, the flats are nice, we get these courtyards and parks and stuff so can't complain. It could be pretty run down if it weren't mixed I guess. But, like I said the shops and that aren't for us, they're not mixed. So that's a shame 'cause it's less nearby for us to do

It should be noted, that there was a definite tenure divide on this issue, with none of the private renting or affordable homes residents voicing any concerns with the mixed tenure of the development. It is important to note that although at the moment interviewees have not cited any specific tensions between different groups, it has already been indicated that some social housing residents feel excluded from certain spaces based on their socio-economic status. Combined with the fact that they feel there are not services aimed at them, it is considered that tensions may arise over the longer term or if this worsens.

Conversely to what would be expected, any negativity from some over the mixed tenure did not seem to translate into residents' sense of community at this time. Despite some of the social renting residents feeling under-provided for and unwelcome in certain areas, all of the interviewees thought that there was a good community in the East Village overall. There was, however, variation was found in terms of why they thought this, or examples of the 'good' community they said was present. This diversity in reasoning is demonstrated by Beth, a private renting resident, and Vicky, an affordable homes resident:

> Beth: Yeah I think there is a good community around here, it's a friendly atmosphere certainly, no trouble. And there are always things going on nearby to get involved with. [pause] It's nicely maintained too, that's a big thing – everyone takes pride in keeping it looking nice so we're all proud to live here.

Vicky: Oh definitely, there's definitely a good community here […] I think it's 'cause there's space for people to be outside you know, to be in the same place without being too cramped or being locked away in their own flats. So you can use places as you please, and get the chance to bump into people which you don't get in a lot of flats with no outdoor area

The focus on spaces illustrated by Vicky is something which was repeated across the majority of interviews, with much of the positive descriptions of community centred around the provision and maintenance of the shared areas.

That is not to say that the sense of community is as strong as it could be. Drawing from Ben again, he states that the community in the East Village is not as strong as other places he has lived:

Ben: […] we haven't really been here long, Like I said people pretty much do their own thing [pause] I guess there is a community a bit, like it's pretty obvious where we live, what's included and that, so [pause] and everyone kind of takes care of it, so yeah there's a community in that sense […] I guess where I grew up and that [there was a stronger community] like I said everyone had been there forever, everyone knew everyone's business and that, so it was kind of more personal I guess

Whilst all the residents were generally positive of the community, there did appear to be a positive link between the extent to which individuals used the shared spaces and their sense of community. This was particularly the case for the interviewees with children, in which case the parents were basing their sense of community on their children's use and interactions in the shared spaces. When asked if they could describe why they thought there was a good community in the East Village, Hannah's sentiment was echoed by the other parents:

Hannah: Well the kids can go out anytime and play, play with other kids, their friends from around here. So they make friends in the park, with a bunch of different kids, and they can use the park whenever they want, they're there all the time, without me worrying. So I think it's that that makes it a good community. My kids have friends, and there are safe places for them to play. That's about it

It is considered their *reasoning* for interviewees' expression there is a good community, and the focus on the shared spaces, offer support to the expectation that those who use the shared spaces to a greater extent will have a stronger sense of community. This in turn this gives a glimpse of the potential importance of these sites for fostering community, and by association the possibility to improve social cohesion. This will be expanded upon in the subsequent sections. Simultaneously, however, it highlights the fact the direct link between the volume of interactions, and local connections with sense of community appears to be weaker. Those who had more interactions and local connections *did* voice that they felt the community was good, but they did not directly cite these connections as part of the reason for this. However, it is considered they may have been overlooked, and there are a number of potential explanations for this. For example, having contacts and interactions within the neighbourhood may be taken for granted by residents, as something which happens in every neighbourhood rather than uniquely signally a good community here. Conversely, residents cite that having access to such spaces is unusual, particularly in London, and as such may have focused on these when asked about features of the sense of community they felt.

Whilst there was not sufficient evidence found in this study to support the expectation that individuals who interact more have a stronger sense of community, it is with trepidation which we reject it. It is considered that as interviewees only cited positive contacts within the neighbourhood, this concept warrants further investigation rather than being ruled out entirely.

Having presented the findings of this research, we will now move on to the principal conclusions which can be drawn for the overarching research questions, before discussing in relation to the findings presented in existing research.

6. Conclusions

Drawing the previous four sections of analysis together enables us to address the overarching research aim of: *How do residents from different socio-economic backgrounds use and experience shared spaces in mixed housing developments, and what is the role of the shared spaces in encouraging interactions and a sense of community between these groups?*

The first research question looked at what informal spaces were available, discussing the availability of four main public park areas within the development, the semi-private courtyards within each housing block, and the shared internal spaces residents use such as hallways and lifts. Of the parks, Victory Park is the largest and was chosen as the central research area for observation due to the areas of interest in the park, the various regular activities which take place, and its promotion as the hub of the community. We also looked at the broader facilities which are available throughout the development, including the shops, bars, and cafes which surround the park, which were found to largely be targeted towards wealthier residents.

Next, we turned to the question of who uses theses shared spaces, and for what purpose. Overall, the spaces which residents had to pass through to reach other facilities were used to a greater extent, although the courtyard areas were also used frequently. Support was found for the expectations that use and users would vary over the course of the day, day of the week, and weather or time of year. Overall, the volume and diversity of users and uses was highest in the evenings and at the weekends, when all groups of residents are available to use the spaces. Mixed support was found for the expectations that family structure and employment status would impact use spaces, as they did not influence use in the ways expected. Families with children did not necessarily use the spaces more themselves even if their children did, whilst unemployment was linked to some lower socio-economic status residents feeling uncomfortable in Victory Park due to the proximity of high end facilities, rather than varying the times they use the spaces. This also slightly limits the extent to which support for the expectation that spaces surrounded by a variety of land uses attract more diverse uses and users: of all the shared areas, the park is surrounded by the most diverse land uses was certainly home to the widest range of users and uses, yet it is apparent these same surroundings work to exclude others. Finally, when certain activities and events were held in the park this was linked to a greater volume of users, even attracting those who previously felt excluded. However, this was not the case for all activities, and seemed to work better for one-off events.

Third, we looked at who residents interact with when they are using these spaces, and whether these interactions led to more local contacts within the development. Those who use the shared spaces more were found to interact more with their neighbours, but the majority of these were light interactions, polite exchanges rather than any extended conversations. As residents were not aware of their neighbours tenure type, the level to which inter and intra group interactions differ were not clear. However, it is considered that due to the differences in use based on socio-economic status described above, there may be greater opportunity for intra group interactions. The expectation that organised activities would increase interactions was not supported however, although attendees did state they recognised other residents there. Finally, there was not a clear pattern that those who interact more in the shared spaces will have more local contacts, whilst some residents stated they had developed deeper connections with other residents, the outcome for half of residents with regular interactions being that they did not lead to anything more.

Lastly, we investigated the extent to which residents' use of spaces and their level of interaction was linked to their sense of community. All residents reported that the community in the East Village was good, with no clear trend between those using the spaces more or interacting more having a greater sense of community. However, the level to which the spaces themselves influence sense of community was documented in residents' reasoning *why* they felt the community was good; the fact the shared parks and courtyards in particular were a recurring factor across all resident groups. The availability of fairly large, safe spaces to use for a variety of activities was particularly important to interviewee's with children. It was concluded that the link between community contacts and sense of community warrants further investigation. The results highlight the importance of these informal shared spaces in generating this sense of community, a vital factor in the broader push for social cohesion present in policy.

Focusing on an area with a fairly good mix of tenures and a range of different spaces allowed for the differences in use and experience of a variety of spaces along socio-economic lines to be investigated. The use of spaces varied from acting as a throughway to other facilities, to a place to sit for lunch, or an area for a game of football. These uses were influenced by a variety of factors including their location relative to other amenities. There were differences not so much in terms of the types of uses different residents made of the spaces, but in terms of the spaces they chose to inhabit and where they felt comfortable.

This study supports the idea that informal meeting spaces, such as those offered by the shared spaces discussed here, provide important opportunities for interactions between different groups to occur. Particularly as residents in this development were unaware of each other's tenure, there is not an initial barrier of 'difference' to prevent in initial exchanges. Those that use the shared spaces more frequently were found to interact more with the other residents. This influence may be enhanced by the presence of repeated organised events to which all residents are interested, encouraging all groups to feel welcome. However, the interactions realised in these spaces were not always connected to deeper social connections, with many of the interactions limited to polite exchanges. The level of interactions themselves were not found to be linked to sense of community, but the extent of use of spaces was. The availability of these spaces was at the root of many of the interviewee's sense of community, and indicates how these informal meeting spaces may be employed to achieve wider policy goals of social mixing such as social cohesion. To this end, it is considered the light interactions which do take place in these spaces were positive ones, which themselves may work to reinforce ideals of solidarity and connection within the community as residents are able to regularly observe their neighbours, build understanding of them, and transfer values and behavioural traits between groups.

Finally, it is concluded that the processes which play out in these informal meeting spaces may be linked to the broader context of more formal meeting opportunities within the neighbourhood, for example where contacts made in one sphere may cross over into the other. It was unfortunately beyond the scope of this research to thoroughly investigate the use and experience of more formal meeting spaces and the overlap of connections with these informal spaces. However, given the apparent importance for both spaces in generating contacts and sense of community arising from this and existing research, it is considered this may be a fruitful approach for future studies.

7. Discussion

This discussion looks at the conclusions drawn from this research in comparison to previous research findings. We then reflect on some of the influences on, and limitations to, these conclusions with regard to their reliability and generalisability.

7.1 Relation to Previous Research

Although this research did not directly repeat any existing study, it is possible for the findings presented here can be compared to the theories and overall conclusions drawn previously. The expectations for findings, drawn together in Section 3, were compiled on the basis of existing literature, and as such as where these expectations were met the findings were largely supportive of previous studies. However, some key comparisons, including a number of contrasting points, are interesting to detail, as it is through these divergences which our understanding of the unique ways in which people use and experience these shared spaces is expanded.

Firstly, in contrast to the Dutch study of different spaces within a housing development by Van Eijk and Engbersen (2011), this research did not reveal any tensions in uses present in the semi-private shared spaces of the courtyards. Van Eijk and Engbersen (2011) found the shared living deck, available to some of the residents, to be a sight of conflict over the desired uses and users. However, the courtyards shared within the housing blocks here were considered the most neutral, or equal, spaces. It is considered the difference here may be the arrangement of the space; unlike the living-decks, the courtyards are in the middle of all of the housing units which are intended to have access to them, all of which have windows facing down onto it. It could be this factor which works to eliminate any predominance of one type of user over another, ensuring all have equal ownership. In contrast, in this study it was the largest shared park which proved to be a sight of potential tension between groups, with some feeling excluded by the proximity of higher-end amenities. However, there were also similarities to Van Eijk and Engbersen's (2011) study, as the park was also the place which was used by the greatest volume and diversity of users. In addition, the use of these spaces was related to the volume of light interactions with other residents users have.

Secondly, whilst there were differences in the use of spaces on the lines of socio-economic status, but unlike other studies (Arthurson, 2007; Van Gent et al, 2016) this was not due to differing daily routines meaning they did not cross paths. Rather, the distinctions were made due to the exclusion some social renting residents felt from the park (as above). Rather than deep rooted social tectonics with residents leading temporarily and geographically separate lives, it is considered that for this development restructuring the organisation and distribution of amenities would be a potential solution to encourage groups to use the same spaces.

Third, the results are in line with aspects of focus theory, which states that when individuals are brought together in a structured activity they will be more likely to interact and be tied (Feld, 1981). Whilst it was true that the events organised in the public park did attract a large and diverse crowd, the extent to which actual interactions were engendered was limited. However, the events are not particularly constraining in that they run over a long period where visitors may not attend at the same time. It is considered that repeated shared experiences such as this could be required for residents to realise and identify the shared interests they have with their neighbours.

Finally, the findings reinforce the findings of Kearns et al (2013), whose study showed that whilst all residents saw benefits of living in a mixed area, they did not mention improvements in outcomes such as jobs, incomes or education in this. In much the same way, the interviewees here stated that they were happy with the mixed tenure environment, but rather than identifying any benefits derived directly from their neighbours, they largely cited aspects such as neighbourhood upkeep and the availability of facilities as reasons why. Combined with the limited extent to which the majority of interviewees interacted with their neighbours, this supports concerns over how realistic many of promises upon which mixed communities are constructed are; including that of broadening social resources and improving individual outcomes. However, whilst such community level effects may be under scrutiny, it is not to say that the benefits that were identified are not worthwhile in their own sense, improving outcomes through economic, social and behavioural, or transformation effects as discussed in the literature review (Kearns and Mason, 2007).

7.2 Reflections

It is important to reflect on some of the issues which effect the results, its generalisability, and its longevity; what could have been done differently here and how this could be improved upon in future research.

7.2.1 Annual Fluctuations

Firstly, it is acknowledged that this research was conducted over one month, with observations over three days. Whilst interviewees were asked to reflect on how they used and experienced the shared spaces over the course of the year, it is possible that they are not accurately remembering how often they used the parks six months ago for example. As was observed in Victory Park and came up in the interviews, the weather plays an important role in the use of the outdoor spaces. Whilst an impression of this was gained from interviews with the residents, some of the users of the park are not residents, and their usage was only observed changing from sunshine to light rain. Finally, in the evenings and weekends the number of children using the park increased. It is reasonable to expect that this trend may be carried on to other times of the year, such as school holidays. Therefore, for a more accurate picture of uses and interactions in the shared spaces, allowing for the fluctuations over the course of a year, observations and interviews spread over a 12 month period may be appropriate.

7.2.2 Interview Bias

Residents were approached in a number of ways, as detailed in the methodology section, to try and reach as broad a section of individuals as possible. However, it is important to consider that the cross-section of respondents interviewed here may not be representative of the community as a whole. It is likely that some bias has arisen and that, for example, those interviewed are those that have the most interest in the shared spaces available. They may be those who use, at least certain, spaces most often, or they may have a particularly negative view of certain areas or neighbours. Those who responded to my interview requests are likely those who are most involved with their area already, and are potentially those who are most outgoing which could have skewed the impression given of how much residents typically interact. Further, the limited number of residents in affordable homes is of a particular concern: 25% of the East Village population reside in this accommodation yet just 11.8% of the sample were from this group. As the rest of the units are rented, either socially or privately, those in affordable homes represent the only home owner group. It is considered that as

home owners tend to be more invested in their neighbourhood over the long term, they may typically put greater effort into attending community events and forming local ties. This is a potential trend which was not apparent, and was not possible to investigate, in this research due to the restricted sample. Reflecting on this, if the research were to be repeated, to improve the selection of participants more door-to-door visits to residents would be conducted rather than relying on leaflets and Facebook group posts initially. Although time consuming, this may have the effect of making those who would potentially be reserved about participating feel more at ease, as they would have the chance to be fully introduced to both myself and the research topic.

7.2.3 Generalisability

As this is research on one case study, there are considerable limits to the generalisability of conclusions drawn about the use and experience of shared spaces. As well as the design of the spaces, other factors have had an influence on the extent to which different groups interact and perceive one another. This includes the levels socio-economic mix and how they are distributed throughout the development; the provision and accessibility of other more formal meeting opportunities; and the extent community bonding is encouraged and supported by the housing associations and local authorities. Although it was beyond the scope of this research to investigate the use and linkages between informal and formal meeting places, the broader circumstances of formal meeting opportunities, including shops, schools, local facilities, and the workplace, represents an interesting topic for expanding this research. Finally, this is a newly constructed development without the legacy of having previously been a social rented area which other urban renewal projects have. This means that the site does not have a stigma to overcome and can dictate its own image from the outset, indeed a brand new postcode was created for the development. Additionally, the residents all moved in over roughly the same period so that there was not the same sense of an influx of more affluent residents as has been observed in other renewal projects, and displacement which accompanies this.

These factors have all come together in the East Village development to produce the community which was investigated here. Therefore, the differences in circumstances in other sites will all influence the ways in which *that* community will function and interact. For example, the feeling that social renting residents expressed of Victory Park not being 'for them' is influenced by its position within the development separated by the main road, the types of accommodation which surround it, and the proximity of upmarket shops and facilities; these are factors which would not necessarily hold true for a central park in another development, and as such perceptions of the space may vary. However, that is not to say that lessons cannot be learnt from this example. This is a new development archetypal of what is laid out in policy in terms of providing mixed tenure housing, and as such gives an insight into the processes and experiences which could be being played out in many more developments across the country as they are constructed. Future case study research to understand whether these patterns and reasoning is repeated in other mixed housing developments would be of benefit in order to move forward to provide settings and circumstances in which interactions between residents can be optimised.

7.2.4 Future Growth

Finally, there is the fact that this development is not finished growing just yet. Whilst the current 2,800 units are an unusually equal mix of social renting, affordable homes, and private rented, there is construction underway for 2000 additional privately rented apartments in high rise blocks. The impact of this disruption to the balance in housing cannot be known as yet. However, it seems fair to conclude that a shift to a higher concentration of more affluent residents is likely to result in a higher concentration of facilities to meet their needs; boutiques, cafes, bars, and restaurants to match their budgets.

Previous research has highlighted the negative effects of an influx of affluent households to an area with a high social renting or low-income population. This was discussed in greater detail in the literature review at the beginning of this report, and includes the displacement and sense of isolation those in lower-income households can suffer (Van Gent et al, 2016). Before the balance shifts too far, it is important to ensure that the mix which is present at the moment is working and that the shared spaces truly are shared by all as intended. Looking at the tensions already present over the use of Victory Park, it is considered without an inclusive background on which to incorporate the new residents, there is a risk that the divide may widen further between the socio-economic groups.

7.2.4 Further Research

On the basis of these reflections, it appropriate to give an indication of interesting areas for future research which this research highlights. These have been indicated throughout, but it is useful to gather them together here. Firstly, a study over longer period would enable a better understanding of how the ways in which spaces are used and experienced fluctuate over the course of the year. Secondly, in terms of this site, a returning study once the new units have been completed would be particularly interesting to look into how the changing proportions of different socio-economic groups affects the experience of spaces and the interactions which take place. Third, with the unexpected result of finding no apparent link between the number of contacts residents have and their sense of community, future research to thoroughly investigate this link would be recommended: as sense of community is a component in the aims of many government policies, it is vital to understand the processes which drive it. Finally, as was stated from the beginning, it is considered research into link between use of informal spaces and use of more formal spaces within the community should be undertaken, and may prove fruitful. Particularly, studies looking at the ways in which contacts made in each can cross over or be reinforced between the different spaces would build well from the point at which this research ends.

8. Policy Recommendations

To conclude this research project, we look to some policy recommendations which can be drawn from the findings. During the interviews residents were asked if there were any changes that could be made to the spaces which would make them more likely to use the space, or to use it for different purposes. The opinions of residents are therefore incorporated here, although the previous considerations of the potential bias of the sample and the limits to the generalisability of results should be borne in mind when assessing their applicability to other spaces. After looking at these resident suggestions, the aspects important to policy arising from the previous analysis section are outlined.

One persistent theme in the interviews was that of incorporating a covered area so that the parks or seating on the main walkways could be used even during wet weather. The suggestion of the need for covered space was evident not only with interviewees with children, who it may be presumed would be more concerned with having year-round outdoor space, but also with childless and single households. However, this suggestion was linked to people stating they would be more likely to use the space more evenly throughout the year, not that on a weekly or daily basis that they would use the space more or differently. It would allow people who already used the spaces to do so for longer throughout the year, but they would not necessarily interact with anyone differently to how they do currently. As such, this physical alteration to the design of the space may facilitate more frequent interactions, however light, between those who already interact in some way, but are unlikely to change the nature or intensity of those interactions and the persons involved.

Further, in relation to the inner courtyards, residents were generally satisfied with what was provided, and did not conceive of any physical alterations which would make them more likely to use the space. However, a suggestion was put forward that organising smaller events in those semi-private spaces would encourage people to chat to their neighbours more. These spaces are considered to be fairly neutral and open, comfortable environments for all residents of that block. Therefore, this may be an effective way of encouraging inter group interactions in a space all those invited already have in common.

Moving to the recommendations which can be drawn from the results presented here as a whole, two main themes of policy recommendation have been devised in relation to the provision of shared spaces in mixed housing developments. Firstly, it is considered vital to take into account the wider context these spaces, supposedly for all to use, are placed in. What flanks the space can clearly be important, and can work to determine ideas of what kind of user and types of uses are expected or welcome there. In this case study, we saw the ways in which the semi-private spaces of the cafes and shops work to exclude the poorer residents from the park which they surround. To this end, policy should work to ensure that the shared spaces provided in mixed developments are presented in as neutral broader environment as possible. This is not to say that facilities should not border the spaces, but rather that they should cater for all residents. It is considered one way in which this could be employed would be to cap the rents charged to commercial spaces in these areas, allowing more 'affordable' facilities which cater to the lower socio-economic residents to be present.

Secondly, it is considered that spaces should be created with multi-functionality in mind from the start; this research has shown the importance of different activities in attracting a variety of users to the central park, even if they normally feel excluded. Therefore it is important that spaces are not only present for residents to pass through and glimpse others, but are able to play host to different events;

from one-off fairs to casual games of football; encouraging people to discover a common interest with their neighbours and a reason to interact. The design of the space should therefore take account of the demographics of the residents; where neighbourhoods have a higher percentage of family homes one of the functions for the shared spaces should be as a play area for children for example. In contrast, if all units will be for single occupancy or older adults, functions may focus on seating areas.

The idea of this section was not purely to understand how this one development could be altered and improved over time, but to provide a backdrop of research against which new developments can compare their plans. Small scale research in case study form such as this allows for the identification of highlights to be repeated and problems to be avoided early on. It is considered this and other studies allow planners to incorporate the understanding that it is the residents who will be using these spaces, or not, and as such their opinions, ideas, and experiences should be taken into account as fully as possible by those looking to renovate or develop new sites.

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10. Appendices

10.1 Appendix 1: Research Leaflet

The below leaflet was distributed in the area as described in the methodology section.

10.2 Appendix 2: Interview Questions

This is the pre-planned list of questions asked to each interviewee. As stated, these were semi-structured interviews and as such areas were expanded or added to as appropriate.

OPENING QUESTIONS - PERSONAL

How long have you lived here?

Who do you live here with?

What type of tenure do you have?

Are you employed? (full/part-time?)

OPEN SPACES

There are quite a few open spaces around East Village, what do you think of them?

Do you use any of them?

What do you use them for?

How often do you use them?

How long do you tend to spend there at a time?

Do you use them alone, or with others?

-Spaces they have not mentioned brought up as appropriate-

Do you see anybody else using those spaces?

> Are these other residents, or people from outside the development?

> What do the other people use the space for?

> Do you talk to them at all when you are both using the space?

>> What do you talk to them about?

Are there areas you do not use/ You mentioned you do not use *X* space; why is this?

-Questions above repeated for courtyard areas if not already brought up-

Do you go to any of the activities which take place in the parks?

> *Why not?*

> Which ones?

> Who do you go with?

> Do you talk to other residents there at all?

>> Who do you talk to?

INDOOR SHARED SPACES

There are a few indoor shared areas, like the entrance and hallways. Do you see anybody else when you're using these?

Who do you see?

Do you talk to them at all?

    What about?

LOCAL FACILITIES

Do you use any of the local facilities?

Which ones?

Are there any you don't use?

    Why is this?

CONTACTS AND SENSE OF COMMUNITY

How many of your neighbours would you say you are familiar with? (for example recognise and say hi to)

How would you characterise your relationships with your neighbours; are you just acquaintances or are there any you would consider friends?

How would you describe the people you are familiar with?

    Do you see them as similar to yourself?

    Are you aware of their tenure type?

And would you say you get along with the other residents?

Do you ever see the people you see in the shared spaces in other places?

    Do you ever speak to them in other places?

How many people do you know in the local area more broadly?

    Are more of your contacts from within the development or from outside?

How would you describe the 'community feel' in the East Village?

    Is there a good sense of community? Can you give any examples of how this is the case?

Do you think the mixed tenure is a good thing?

    Why?

Do you have any problems in the development?

    Do you have any problems with the other residents?

CLOSING QUESTIONS - CHANGES

Are there any changes you can think of which could be made to any of the areas we've talked about, which would make you more likely to use the space more (or at all for spaces they do not use)?

10.3 Appendix 3: Coding Tree

Length of residence
    New resident
Tenure type
    Social
    Private
    Affordable
Employment
    Employed
        Full time
        Part time
    Unemployed
Shared spaces as desirable
    Open/accessible
    Green
    Peaceful
        Courtyards
Shared spaces as problematic
    Victory Park Exclusionary
Frequency of use
    Daily use/Often
    Use sometimes
    Don't use
        Undesirable
        No need to
Uses of shared space
    Walk through
        Victory Park
        Other Gardens
    Sit out   Lunch/Coffee
        Parks
        Courtyard
    Children
        Play out
        Interact
    Use alone
    Use with partner or family
Factors on use
    Weather
    Holiday
    Weekend
Length of use
    Brief pass through
    Depends
Location determines use(r)
    Access to shops/transport
    Near to/visible from home
Diversity of others seen
    Mix of users
    Same people regularly
Awareness of S-E status
    Doesn't come up when talk
    Not obvious

Interactions in spaces
    Brief encounters
        Outdoor parks
        Courtyards
        Indoor areas
    See same people
    Recognise neighbours
    Longer conversations
Activities as inclusive
    Exciting
    Interesting
    Range of visitors
    See neighbours
    Interact with neighbours
Activities not worthwhile
    Time
    Money
    Unattractive
    Space should be free
Local connections
    Rel is just acquaintances
    Connected to neighbours
    Few connections
    Don't have connections with them
    Connections elsewhere
Residents as similar to me
    Same lifestyle
    Unaware
Indoor spaces as necessary
    Have to see people
    Interact when necessary
    Nice to know neighbours
Local Facilities
    Shops as exclusive
    Proximity useful
    Occasional use
    Super market useful
Community is strong
    Children safe
    Spaces to spend time
    Clean spaces
    Facilities
    No problems with neighbours
Community could be improved
    Connections
    Stronger elsewhere
    Facilities not for all
Improvements to shared spaces
    Seating
    Weather-proof
    Events

10.4 Appendix 4: Observation Guide

The below shows the observation guide constructed prior to the research taking place to ensure all necessary details were recorded across all observation periods.

What is the physical space like?

- What is provided? e.g. grass, benches, lighting
- What are the surroundings like?
- How accessible is it?

The feel of the space

- What is the noise level like?
- How over looked is it/How private is it?
- Is it a comfortable place in terms of warmth, seating etc.?
- What is the weather like? Does this effect the comfort and usability of the space?
- What is the atmosphere like?

Who is using the shared spaces?

- What is the age/gender/ethnicity split of the people using the area?
- Are they alone or in groups/families?

When are they using the space, and for how long?

- Are they just passing through? Do they have appear to have a specific reason for being in the space?
- Is what they are doing dependant on the time of day?
- Do they stop in the area for any amount of time?

What are they using the space for?

- Are they partaking in a particular activity, or just enjoying the space?
- Are some areas more popular than others? Is this split at all by group or by activity?
- Are they using it with anyone else – i.e. did they arrive with anyone else or meet anyone else there?
- If so, who do they interact with? Details of age, gender, and ethnicity in comparison to their own should be noted.
- What type of interaction do they have? Details of length, attitude, body language etc. should be noted.

10.5 Appendix 5: Interview Consent Form

The below form was provided to each interview participant prior to the interviews being conducted. One copy was retained by the participant and one kept for myself whilst the research was ongoing.

Universiteit Utrecht

Faculty of Geosciences

Participant Information and Consent Form

Thank you for your interest in participating in an interview (around 45 minutes) on the topic of the use of public spaces in housing developments and interactions with neighbours. The information gathered will form part of my master thesis at the University of Utrecht.

All participants will remain completely anonymous, you will not be identified in the final report, and you are free to withdraw from the research at any time without giving a reason.

The research is being supervised by Gerald Mollenhorst (g.w.mollenhorst@uu.nl), and has received ethics approval from the University of Utrecht Department of Geosciences. If you have any further questions, or would like to know the outcome of the research once it has been completed, please email me, Sophie Wilson, at s.e.wilson@students.uu.nl

I agree to my responses forming part of this research, and understand some quotes may be included (anonymously) in the final report.

Participant's Name (printed):....................................Participant's Signature:................................
Date:............................

Researcher's Name (printed):....................................Researcher's Signature:................................
Date: ....

In order to speed up the interview process, and so that I not have to transcribe throughout the interview, a Dictaphone will be used to record it. All recordings will be stored securely and deleted once the interview has been transcribed to ensure anonymity is preserved.

If you would rather the interview was not recorded, this is not a problem, and the interview can still take place.

I agree to a Dictaphone being used to record the interview in its entirety.

Participant's Name (printed):....................................Participant's Signature:...................................
Date:............................

Researcher's Name (printed):....................................Researcher's Signature:..................................
Date: ....

10.6 Appendix 6: Movement and Behaviour Maps

The complete set of movement and behaviour maps compiled over the three day observation period is shown in Tables 5 and 6 overleaf. Table 4 in the main text provides a sample of the most representative maps. The legend below is applicable to all the maps presented.

Legend	
	Observation Area
	Gorilla Statue
	Nature Reserve
	Mirror Maze
	Bench
	Green and Tree covered areas
	Housing and Ground Floor Shops/Bars
	Construction Site
	1 Individual
	5 Individuals
	Behaviour

Table 5: *Movement Maps*

	Morning	Afternoon	Evening
Saturday 02/04/2016	08:55-09:05	12:50-13:00	17:50-18:00
	09:50-10:00	13:50-14:00	18:50-19:00

Sunday 03/04/2016

| 09:50-10:00 | 12:50-13:00 | 17:50-18:00 |
| 10:50-11:00 | 13:45-13:55 | 18:50-19:00 |

Wednesday 06/04/2016

08:50-09:00	12:50-13:00	17:50-18:00
09:55-10:05	13:50-14:00	18:50-19:00

Table 6*: Behaviour Maps*

	Morning	Afternoon	Evening
Saturday 02/04/2016	08:55-09:05	12:50-13:00	17:50-18:00
	09:50-10:00	13:50-14:00	18:50-19:00

Sunday 03/04/2016

09:50-10:00

12:50-13:00

17:50-18:00

10:50-11:00

13:45-13:55

18:50-19:00

- End -