

**Green spaces in the urban
environment:
uses, perceptions and experiences
of Sheffield city centre residents**

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PART I

Introduction

Literature Review



Chapter 1 Introduction

Section 1.1 provides a background to the general study and a brief rationale for conducting this research. 1.2 outlines the primary research aims. 1.3 briefly introduces the methodological approach taken in this research. 1.4 provides an introduction to the principal green spaces encountered in this research in order to orientate the reader. 1.5 provides a brief description of how green space has been conceptualised for this thesis and 1.6 describes the policy context, while 1.7 outlines the thesis structure.

1.1 Background and rationale

There is increasing policy concern over the health and wellbeing of residents in city centres and indeed the role that green spaces may play in such promotion. However this is not a new idea. The development of urban public parks in the 19th Century stemmed from a desire to improve health and wellbeing of workers in newly industrialized cities, and was based on the strong supposition that green open spaces would have particular health advantages for the urban poor (Rohde & Kendle, 1997). Frederick Law Olmsted, who designed Central Park in New York in the 1870s, believed strongly in the emotional and physiological benefits of natural environments on those in the city and parks were conceived with the idea that outdoor exercise, such as walking was beneficial to health (Morris, 2003, Krenichyn, 2003).

This research had a concern to situate issues of the benefits of green space amongst a broader exploratory study which explored the holistic experience of green spaces for contemporary city centre residents. In addition to benefits therefore; it considered issues of perceptions and usages of green spaces with the residents of the city centre, as well as general feelings about living in the city centre.

The context for this research was the city of Sheffield in South Yorkshire which is the fourth largest city in England with a 2007 population estimate of circa 530,300 (Office of National Statistics, 2007, cited by Sheffield City Council, 2009). Sheffield has undergone considerable changes even over the past five years. Such redevelopment has focused particularly upon landscaping and many of the public and green spaces in and around the city centre have undergone programmes of improvement and regeneration; in addition to numerous residential and business redevelopment projects.

This redevelopment has arguably developed with a concomitant shift away from the traditional industrial identity to one which highlights the unique quality of life offered by the city of Sheffield. Official discourses highlight the greenness of the city, emphasising its links to the Peak District and its many parks and open spaces as well as the safety of the city in comparison to others (Creative Sheffield, 2007, Sheffield City Council, 2009).

Despite the reputation of the wider city of Sheffield for the quality and quantity of green space however, the city centre of Sheffield is a place that is relatively lacking in green space and greenery (Sheffield City Council, 2004a); it is also a site of increasing city centre residential development and population change. For example, the 1991 Census showed that just 1,511 people were living in the city centre, but Sheffield City Council have estimated that by 2016 the city centre will have a population of at least 14,000 people (Sheffield City Council, 2004b).

This pattern of city centre residential development has been actively encouraged by Government policy which has filtered down into local council housing policies (Bromley et al, 2007). Indeed Sheffield City Council has explicitly stated that one of the major aims of the Sheffield City Centre Strategies since the late 1980s has been to encourage growth of the resident population in the centre of Sheffield. The benefits of this are argued to be numerous and include:

'improved sustainability, vitality and attractiveness, a safer City Centre which continues to live in the evening and at weekends and the generation of new uses for brownfield sites and vacant but sound buildings'

(Sheffield City Council, 2004, p2)

With this trend continuing, the importance of the contribution of green spaces to people's lives is a particularly important area for investigation, when there is likely to be commercial development pressure placed upon areas of city centre greenery; indeed the Ponderosa green space near the city centre was subject to development pressure in the 1990's, but it's importance was demonstrated by friends of the parks (Friends of Crooksmoor Parks, 2008). In addition there are likely to be greater requirements placed upon green spaces due to increased population density resulting (presumably) in increase in green space usage (Sheffield City Council, 2004).

There has also generally been a lack of research exploring green space for city centre populations. Lack of green space has been mentioned as a negative factor by city centre residents in broad studies of city centre living, however it is not something that has been explored in detail by these studies (e.g. Nathan & Urwin, 2005). A small number of studies that explore green spaces specifically have found however that they are important to city centre life. While Scandinavian research has found unsurprisingly that suburban areas tend to be greener (as is the case in Sheffield) and also that people in those areas use green spaces to a greater degree than people in the city centre (Neuvonen et al, 2007; Grahn & Stigsdotter, 2003); Grahn & Stigsdotter suggest that the lower level of usage does not necessarily mean that people who live in city centres do not care about green spaces to the same degree. They found that there was no difference between city centre dwellers and suburbanites in their desire to increase usage of green spaces, indeed a slightly higher percentage of city centre residents wanted to use green spaces more often (Grahn & Stigsdotter, 2003). Of course this may reflect the lower pre-existing rate of usage and thus people in the city centre may not wish to use green spaces as much as people in the suburbs; nevertheless it refutes the idea that city centre dwellers are necessarily unconcerned about green spaces.

Other studies conducted in European cities such as those by Chiesura (2004) and Sanesi and Chiarello (2006) have suggested that people perceive that green spaces purvey certain benefits to urban populations. Sanesi & Chiarello explored people's perceptions of green spaces in the Italian city of Bari, a city that is relatively deficient in green spaces, as well as how these perceptions relate to usage. The respondents perceived that green spaces were important for improving climatic conditions and they provided spaces for leisure, recreation and to play with children (Sanesi & Chiarello, 2006). Using an on-site questionnaire conducted in a park in Amsterdam, Chiesura found that many people visited to relax, listen to and observe nature. The idea of escape from the pressure of urban life was also stressed, as was socialising with family and children:

'urban nature offers the possibility to escape not only from the worries and routine of everyday life, but also from the physical contours of the city'

(Chiesera, 2004, p133)

While these studies are insightful, they are lacking a holistic approach which I feel would aid understanding of the contribution of green spaces to city centre life.

1.2 Research aims

This study aimed to explore with city centre residents their experiences of the green space in and around the city centre of Sheffield.

While detailed research questions are presented in the literature review chapter, these included general understandings of:

- How people felt about living in the city centre
- How green spaces were used in and around the city centre
- How people felt about the quality and quantity of green spaces
- The benefits people perceived that the spaces provided for residents
- How green spaces integrated into city centre life
- How the above features were related

How green spaces were perceived and used by residents was the focus of the research as opposed to perceptions solely of *users* of green space. This is important to qualify as one of the city centre green spaces (Peace Gardens) in particular is marketed as a city wide attraction, drawing users from all over the city (Sheffield City Council, 2007). This is also the case for one of the green spaces that could be seen as local to city centre residents, even though it is outside the city centre inner ring road (Weston Park), which is often used to delineate the city centre area by the City Council.

The importance of exploring *local* green spaces with residents is underlined when it is considered that having nearby green spaces is particularly important for predicting usage of green space. Indeed research has suggested that usage of green spaces declines dramatically as distance between green spaces and residences increases (Grahn & Stigsdotter, 2003, Neuvonen et

al, 2007); and in particular that people may often only be prepared to travel up to five minutes to visit a green space (Coles & Bussey, 2000). Usage patterns of local city centre green spaces were therefore explored in detail in order to build up a picture of how (and indeed if) city centre residents used their local green spaces.

People's perceptions of green space were also particularly important to consider as they influence both usage and the likelihood of benefiting in any way from green space (Burgess et al, 1988). Important perceptions include those of the potential benefits that green spaces may bring as well as perceptions of the qualities (and quantities) of green spaces in the area. This was vital in order to understand the perceptions as well as realities that may influence non-usage as people may not perceive the 'reality' of the situation, for example with regard to concerns over safety (Burgess, 1995).

1.3 Methodology

This research used a sequential mixed methods approach combining qualitative and quantitative methods. This was selected in order to be able to produce a more comprehensive study than from one method alone (O'Cathain et al, 2007), however this was not simply in additive terms, or in terms of triangulation where one method is used to confirm the findings of another; but entails recognition that different methods may produce different answers and that this in itself is desirable (Irwin, 2006).

Thus mixed methods were used to address a broad range of research questions as I recognise that certain questions are best assessed through quantitative and others through qualitative. Using two different methods also enables an understanding at different levels of reality, with for example questionnaires providing breadth and qualitative, providing depth (Sosu et al, 2008). Because all social phenomena are multifaceted, a variety of approaches enables an exploration of their complexity.

The quantitative method of data collection was a self-administered household questionnaire sent to residents of Sheffield city centre rather than on-site surveys which are often used. This was because it is more likely people with different preferences will be reached through household surveys. Surveying residents also meant the ability to access people who did not use the green spaces under investigation and indeed any green spaces, and therefore the possibility of being able to identify particular excluded groups (Coles & Caserio, 2001, p24). It also therefore situates green spaces in the broader context of living in the city centre rather than green spaces as the sole focus.

The interviews were semi-structured and conducted with some of the respondents to the questionnaire. Semi-structured interviews were chosen in order for people to discuss matters that were important to them and in their own words without imposition of the researcher's point of reference (Mason, 2006): while also ensuring that similar topics were covered across the interviews enabling important research questions to be addressed.

Sheffield Parks

Key to Sites

- | | | | |
|----|---|----|---|
| 1 | Abbeyfield Park | 47 | Herdings Park |
| 2 | Angram Bank Recreation Ground | 48 | High Hazels Park & Tinsley Park Golf Course |
| 3 | Arbourthorne Playing Field | 49 | Hillsborough Park & Walled Garden |
| 4 | Bawtry Road Sports Ground | 50 | Hollinsend Park |
| 5 | Beauchief Gardens | 51 | Jaunty Park |
| 6 | Beauchief Golf Course | 52 | Longley Park |
| 7 | Bingham Park | 53 | Loxley and Wadsley Commons |
| 8 | Birley Spa | 54 | Loxley Recreation Ground |
| 9 | Birley Wood Golf Course | 55 | Mather Road Recreation Ground |
| 10 | Blacka Moor | 56 | Meersbrook Park |
| 11 | Blackbrook Wood | 57 | Middlewood Park |
| 12 | Bole Hill Recreation Ground | 58 | Millhouses Park |
| 13 | Bowden Housteads Wood | 59 | Monument Gardens & Clay Wood |
| 14 | Bradway Recreation Ground | 60 | Mortomley Park |
| 15 | Chapelton Park | 61 | Mount Pleasant Park |
| 16 | Charlton Brook | 62 | Norfolk Heritage Park |
| 17 | Chelsea Park | 63 | Oxley Park |
| 18 | Colley Park | 64 | Parson Cross Park |
| 19 | Concorde Park/Golf Course & Woolley Woods | 65 | Phillimore Park |
| 20 | Crookes Valley Park | 66 | Ponderosa |
| 21 | Darnall Community Park | 67 | Porter Valley Parks |
| 22 | Deep Pits | 68 | Richmond Park |
| 23 | Deepcar Recreation Ground | 69 | Rivelin Valley |
| 24 | Dore Recreation Ground | 70 | Roe Wood |
| 25 | Earl Marshall Recreation Ground | 71 | Sheffield Botanical Gardens |
| 26 | East End Park | 72 | Sky Edge Playing Field |
| 27 | Ecclesall Woods | 73 | Stannington Park |
| 28 | Ecclesfield Park | 74 | Steel City Recreation Ground |
| 29 | Ellesmere Park | 75 | Sycamore Park |
| 30 | Endcliffe Park | 76 | Thorncliffe Recreation Ground |
| 31 | Firth Park | 77 | Tinsley Park Hill |
| 32 | Flockton Park | 78 | Tinsley Recreation Ground |
| 33 | Forge Dam | 79 | Tongue Gutter |
| 34 | Fox Glen Recreation Ground | 80 | Waterthorpe Park |
| 35 | Foxhill Recreation Ground | 81 | Weston Park |
| 36 | Frecheville Pond | 82 | Westwood Country Park |
| 37 | General Cemetery | 83 | Wheata Wood |
| 38 | Gleadless Valley Woodland Park | 84 | Whinfell Quarry Gardens |
| 39 | Glen Howe Park | 85 | Whirlow Brook Park |
| 40 | Graves Park | 86 | Wincobank Wood |
| 41 | Greenhill Park | 87 | Wood Lane Countryside Centre |
| 42 | Greenoak Recreation Ground | 88 | Woodthorpe Ravine |
| 43 | Grenoside Recreation Ground | 89 | Wordsworth Avenue Open Space |
| 44 | Handsworth Recreation Ground | 90 | Wyming Brook |
| 45 | Heeley City Farm | | |
| 46 | Heeley Millennium Park | | |



Figure 1.1. Map of the green spaces in Sheffield. Copyright Sheffield City Council (2007)

1.4 Sheffield green spaces

This section introduces the reader to the principal green spaces discussed in the thesis (See Figure 1.1. City Council Map on previous page for distribution of green space across the whole city). Additional green spaces will be encountered during the course of this thesis; however this section focuses on the most used spaces and those subject to much discussion in the interviews.

1.4.1 City centre spaces

This section highlights those spaces that fall within the city centre as defined by the A61 ring road



Key (from left to right)

- 1 Devonshire Green
- 2 Peace Gardens
- 3 Winter Garden

Figure 1.2. Aerial image of city centre (Google Earth, 2009)

Devonshire Green (1.22 hectares)

Devonshire Green (Figures 1.3-1.6) is an informal green space on the outskirts of the city centre in the Devonshire Quarter, surrounded by shops, cafes and the residential flat development of West One. Redevelopment was completed in Summer 2008, in the middle of the conduct of this research. It is now principally a lawned area with some trees, raised flower beds and integrated seating. It also has a very popular skate park which pre-dates the renovation.



Figure 1.3. Devonshire Green, during redevelopment, view to West One



Figure 1.4. Devonshire Green and West One after redevelopment



Figure 1.5. Devonshire Green, view across new concrete flowerbed to Forum café/bar (painted blue)



Figure 1.6. Devonshire Green skate park

Peace Gardens (0.67 hectares)

The Peace Gardens (Figures 1.7-1.9) are part of the 'Gold Route' from Sheffield station and are adjacent to the Town Hall. It is seen by the city council as the prime green space in the city centre (Sheffield City Council, 2004). It has a large inbuilt fountain which is frequently played in by children, and grassed areas, surrounded by decorative concrete. It is patrolled by city centre ambassadors.

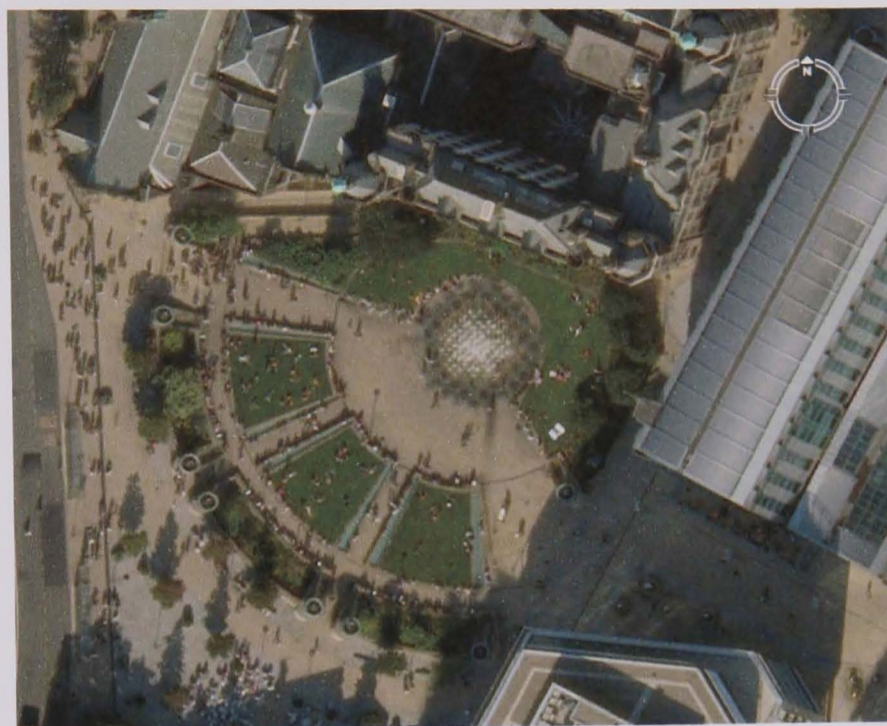


Figure 1.7. Aerial view of Peace Gardens (Google Earth, 2009)



Figure 1.8. View across Peace Gardens The Winter Garden can be seen in mid background of picture



Figure 1.9. Peace Gardens, fountain. View of Town Hall in background

Winter Garden

The Winter Garden (Figures 1.10-1.12) is a temperate glasshouse with over 2,000 plants. The building is 70 metres long and 22 metres high (Sheffield City Council, 2007). While not perhaps a conventional ‘green space’ (this was often debated in interviews) the Winter Garden was frequently mentioned by interviewees and thus it is appropriate to introduce it here.



Figure 1.10. Winter Garden, large scale interior



Figure 1.11. Winter Garden, close up of internal pathway



Figure 1.12. Winter Garden, entrance

1.4.2 Spaces outside the city centre

This section highlights the principal green spaces situated outside the immediate city centre, which were used by questionnaire respondents and discussed in the interviews.



Key (from left to right)

- 1 Endcliffe Park
- 2 Botanical Gardens
- 3 Crookes Valley Park
- 4 Weston Park
- 5 Ponderosa
- 6 Graves Park
- 7 Norfolk Park

Figure 1.13. Aerial view of green space outside city centre (Google Earth, 2009)

Endcliffe Park (15.5 hectares)

Endcliffe Park (Figures 1.14-1.16) is situated 2 miles south of Sheffield City Centre and is part of Porter Valley parks sequence which can be followed out to the Peak District.

Key features include a café, children's playground, floral features, statue of Queen Victoria, parking and toilets. There are wooded areas, grassed recreation area and a pond.



Figure 1.14. Endcliffe Park, pond



Figure 1.15. Endcliffe Park, wooded area



Figure 1.16. Endcliffe Park, café

Botanical Gardens (7.6 hectares)

The Botanical Gardens (Figures 1.17-1.19) were designed by Robert Marnock in gardenesque style (Friends of Botanical Gardens, 2009). It features different garden areas of interest with plants from around the world, e.g. American, Asian and Mediterranean, and contains various ponds and a fountain. Facilities include the gatehouse shop and a café/restaurant, and toilets. An unusual feature is the bear pit which once housed a live bear. The glass pavilions contain many exotic plants. The Botanical Gardens are enclosed within a wall and gates are locked in the evening.



Figure 1.17. Botanical Gardens in summer, view across gardens to pavilions



Figure 1.18. Botanical Gardens, Rose Garden



Figure 1.19. Botanical Gardens in autumn, view across pavilions towards the city centre

Crookesmoor Parks

The following three parks (Figure 1.20) are in close proximity to one another and the Western Bank Campus of the University of Sheffield. They are just outside the ring road demarcating the city centre.



Key:

- a: Crookes Valley Park
- b: Weston Park
- c: Ponderosa

Figure 1.20. Crookesmoor Parks

(Base Map obtained from Friends of Crookesmoor Parks, 2008)

Crookes Valley Park (4.8 hectares)

Crookes Valley Park (Figures 1.21 & 1.22) is adjacent to Weston Park. Much of the park is taken up with a lake which was originally a water supply reservoir. It is surrounded by sloped grass, and has bowling greens and a children's playground. The Dam House pub/restaurant is at the top of the park.



Figure 1.21. Crookes Valley Park, view across lake to Dam House



Figure 1.22. Crookes Valley Park, children's playground

Weston Park (5 Hectares)

Weston Park (Figures 1.23-1.25) is adjacent to the University of Sheffield. The redevelopment of Weston Park has recently been undertaken and involved renovation of the seven statues, memorials and the bandstand as well as improvement of the pond.

Other features of interest in the park include Weston Park Museum and tennis courts.



Figure 1.23. Weston Park, view of bandstand and monument



Figure 1.24. Weston Park, renovated pond



Figure 1.25. Weston Park Museum

Ponderosa (10 hectares)

Ponderosa (Figures 1.26-1.28) is across the road from Weston and Crookes Valley Parks and is larger than the other two spaces. Ponderosa is a mainly lawned recreation area, with a children's playground, but the top end contains a wooded area and adventure playground.



Figure 1.26. Ponderosa, view of recreation ground including Local Authority housing tower blocks



Figure 1.27. Ponderosa, wooded area



Figure 1.28. Ponderosa, adventure playground, University Arts Tower can be seen behind trees.

Graves Park (83.45 hectares)

Graves Park (Figures 1.29-1.31) is three miles south of the city centre, and at 83.45 hectares is the largest park in Sheffield. It has an animal farm, café, two children's playgrounds and toilets. Sports facilities include tennis courts and bowling green. There are large grassed areas, as well as lakes and woodland areas.



Figure 1.29. Graves Park, wooded area



Figure 1.30. Graves Park, lakes



Figure 1.31. Graves Park, grassed area, view of organised running event

Norfolk Heritage Park (28 hectares)

Norfolk Park (Figures 1.32 & 1.33) is one mile south east of the city centre. It was gifted to the city centre by the Duke of Norfolk and was one of the earliest public parks in England. The tree-lined avenue once formed the entrance to the Norfolk estate. Facilities include a café, toilets and children's playground.



Figure 1.32. Norfolk Park, view towards tree lined entrance



Figure 1.33. Norfolk Park, view across to city centre.

The spire on the right is the Town Hall. Tall building on the left is University Arts Tower.

1.5 Key concept: green space

The terms ‘green space’ or less frequently ‘green area’ have been used as short hand throughout this thesis to indicate generally any predominantly green area which has significance to either researchers whose work was highlighted in this thesis, or the participants in my research. This usually referred to urban green spaces, as that is the context for the research and those that are largely publicly accessible. This includes for example, parks, woodlands, and small areas of green and play areas, but not private gardens.

The predominance of green was generally recognised as important for the classification of green space as opposed to ‘grey space’; which was the case with Dunnett et al’s research, where green space is conceptualised as a space which is made up of land which is predominantly ‘unsealed, permeable ‘soft’ surfaces such as soil, grass, shrubs and trees’ (Dunnett et al, 2002, p23). However it is acknowledged that some spaces under discussion in this thesis may be more readily classed as ‘public’ or ‘open’ spaces rather than ‘green’ spaces, due to the considerable variability of research explored here, as well as views held by participants. The term greenery was also therefore used in this thesis to indicate natural features such as trees, flowers and bushes which are either within or separate to a specific green or open space. Frequently this referred to that which is on streets and in predominantly areas of ‘grey space’ which is land ‘predominantly of sealed, impermeable, ‘hard’ surfaces such as concrete, paving or tarmac’ (Dunnett et al, 2002).

This conceptualisation of green space was therefore not intended to coincide specifically with any official view of green spaces including those of the Sheffield City Council or official bodies such as the Land Registry or Ordnance Survey. For example the Generalised Land Use Database which is utilised by Ordnance Survey is concerned principally with the physical land surface in terms of greenery and vegetation cover rather than how a space is used and whether it

is accessible to the public (ODPM, private email, 2007). The fact that the term green space may be contested is recognised and highlighted throughout the thesis and indeed the participant's views on what the term may mean were explored in interviews. In addition the definition utilised in the questionnaire will be explained in chapter 4.

1.6 Policy Context

Urban green and open spaces have become an increasing policy priority over the past decade. With the establishment of the Urban Green Spaces Taskforce in 2001, the report *Green Spaces, Better Places* (2002) produced recommendations for the improved provision, design, maintenance and management of urban parks and other green spaces. Another report, *Living Places: Cleaner, Safer, Greener* (ODPM, 2002a) involved a variety of different government departments and set up proposals for improving the general liveability of urban public spaces, stressing that 'everybody's local environment should be cleaner, safer and greener' (ODPM, Ministerial Foreword, 2002a, p1). The establishment of CABI Space as an advisory body for public spaces and buildings indicates increasing attention being given to the nature and design of public space. As is reported by the Department for Communities and Local Government (formerly ODPM), green spaces are viewed positively by the government in all different forms and are thought to have numerous benefits such as supporting the local economy, making neighbourhoods more desirable, in addition to health benefits, social cohesion and biodiversity (Department for Communities and Local Government, 2010).

This concern is reflected in government policy guidelines. Planning Policy Guidance 17 (PPG17) requires Local Authorities to undertake assessments of the existing and future needs of their communities for open space, sport and recreational facilities. This reflects the need for localised assessment which will ascertain the requirements of communities depending upon the specific population and environment (ODPM, 2002b). Successful green space planning has been argued to depend upon the development and implementation of a green space strategy which highlights current and future needs in regard to both the creation and management of open and green spaces (Coles & Grayson, 2004).

PPG17 explicitly recognises the importance of protecting existing open spaces when they have specific uses or benefits; for example, as recreation facilities, as community resources, or when they benefit wildlife and biodiversity. While the building on school playing fields is not prohibited; a number of preconditions are indicated which make the justification of building on such sites more difficult.

PPG17 suggests that urban green spaces can play a role in supporting an 'urban renaissance' through creating a pleasant environment and improving air quality. In addition they are seen to be sites that can improve community cohesion through encouraging social interaction. Health and well-being are also seen to be products of green space through social interaction as well as sport and exercise.

The Sheffield Green and Open Space strategy is currently undergoing consultation, although the East Sheffield Green and Open Space Strategy has been published which deals with issues specific to this area of Sheffield. It recognises the particular circumstances of the east of Sheffield being generally a relatively economically deprived area. The management and maintenance of space was seen as a particular priority. Specifically, while larger spaces were of higher quality the smaller and more informal spaces often did not meet baseline assessments for quality. The areas nearer to the city centre are also seen to be lacking in green space. In addition while most people visited parks and green spaces, 30% said they never visited (East Sheffield Green and Open Space Strategy, 2008).

Connection between different open spaces was seen as important in addition to improving connectivity between green spaces and other places, such as community centres, schools and other amenities to encourage the usage of green space. To increase the distinctiveness and attractiveness of the area, recommendations were made to make spaces more attractive, accessible and visible from routes to and from the city 'improving the first impression of people travelling into the city and making it more attractive to business' (East Sheffield Green and Open Space Strategy Executive Summary, 2008, p6).

The Local Development Frameworks for Sheffield (Sheffield City Council, 2007) defined a large number of places within the open space category including small informal spaces that provide recreation close to home that are not necessarily formally designated green or open spaces. The classification of local area as within 400 metres conceptualises green space within 5 minutes walk, which emphasises the need for local spaces within all different communities.

1.7 Thesis structure

Chapter 2 is the literature review. This explores the previous research that has been conducted in different areas relevant to the research. Relating to the cross disciplinary nature of this project, this research covers a variety of different disciplines and subject areas.

Part II contains the methodology chapters. Chapter 3 discusses the mixed method approach to the research and explains the justification for employing this approach. Chapter 4 examines the questionnaire, the practical reasons for employing the questionnaire, the structure and administration of the questionnaire. Chapter 5 examines the qualitative interviews including how they were conducted and analysed.

Part III contains the results and discussion. The results chapters are subject led and involve combining the presentation of the questionnaires and the interviews. Chapter 6 describes the participants and the general findings with relation to city centre living, including their reasons for living in the city centre, advantages and disadvantages. Chapter 7 explores the usage of green spaces, including reasons for using and the different ways in which green spaces are used. Chapter 8 explores the benefits that people gain from green spaces. how different types of benefits can be understood and how people perceive them for themselves and for others. It also

includes a consideration of the importance of green spaces to the city centre. Chapter 9 explores people's perceptions of spaces. This examines perceptions of quality, quantity of space, relationship of perceptions to usage, as well as important understandings of ideas around the appropriate usage of space. Chapter 10 discusses the principal research findings in relation to relevant literature and highlights the contribution as well as limitations of this research. It also includes a summary and suggestions for future research.

Chapter 2 Literature Review

This chapter discusses studies which explore different aspects of the experience of green spaces in the city centre. There has been an increasing amount of research exploring green space in urban (and non-urban) environments over the past few years that has examined various elements including usage, perceptions of space and benefits gained. Methods range from experimental studies to detailed qualitative work as well as survey studies. The studies are discussed within different subject-led sections; thus some studies which have a broad focus will be explored in more than one section. The research studies will be summarised in various tables which correspond to particular areas of research interest, although reflecting the considerable overlap of some survey and qualitative work these broad studies are presented in separate method-based tables (Tables 2.7 and 2.8).

The literature was obtained through literature searches of databases including Web of Knowledge, Sociological Abstracts, Science Direct and Google Scholar. Citation searches were also conducted. Important journals were also hand checked on a regular basis and many articles were obtained from hand checking the references of other articles. These latter methods proved particularly fruitful as search terms may fail to identify important literature if keywords are different, for example 'green space' is not actually a term used by many authors. Internet searches were also conducted, as were searches of library databases for books. Terms used included: green*, greenery, green space, wellbeing, health, cities, urban, park(s), wood*, public space, urban space, city space, nature, restoration, physical activity, and combinations of these when results yielded were too large.

Section 2.1 explores the literature investigating city centre living in order to provide an introduction. 2.2 introduces large scale studies which have demonstrated the health benefits of green spaces. The primary focus of this review explores the particular benefits/wellbeing outcomes that green spaces are considered to bring. Firstly, in Section 2.3 these include physical and mental benefits that are said to arise from physical activity, followed in 2.4 by psychological benefits such as increased relaxation, less stress etc, associated with being away from everyday urban life, and finally in 2.5, social benefits such as increased social interaction. Section 2.6 explores usage and perceptions of spaces and how these relate. 2.7 considers safety and preference which have been widely explored. 2.8 explores general usage patterns, while 2.9 explores how usage may differ by different characteristics. 2.10 introduces the concept of liveability which highlights the potential role of green space within local communities. Finally 2.11 presents the research questions which were developed partly as a response to this review.

2.1 City centre living

Much social research into city centre living has focused upon gentrification in city centre and inner city environments. While there are contested definitions resulting from research having different foci and also a constantly developing situation; gentrification is generally thought to involve the upgrading and redevelopment of working class communities by incoming middle class dwellers and the subsequent displacement of working class residents. Although, there is debate about the extent to which new developments, where there is no existing population, are classified as gentrification (e.g. see Lambert & Boddy, 2002).

The detailed issues referring to theoretical debates considering gentrification will not be explored here due to lack of space and it not being a specific focus for this study. However, research will be briefly considered which examines how people perceive living in the city centre. The smaller number of studies which have explored more practical issues with regard to city centre living will briefly be explored (Table 2.1).

2.1.1 Advantages and disadvantages

Previous research has explored with city centre residents as well as those who may potentially become residents, what would attract them or discourage them from living in the city centre. Convenience was often cited as a reason for and advantage of, living in the city centre. Oakes & McKee using qualitative research found the importance of being in safe and convenient areas that have good access to amenities, leisure and work, public transport and roads out of town. The ability to walk around without needing a car was a commonly cited advantage (Oakes and McKee, 1997). Within the research of Heath, based on a questionnaire study with people on streets in three provincial cities, convenience again was cited as something that may attract people to the city, the availability and ease of usage of public transport was also valued as was convenience to shops and attractions of nightlife and eating places (Heath, 2001). Seo (2002) conducted questionnaires with residents in Manchester and Glasgow. Residents in the central city area considered being close to work as important as well as being in the central city location. Nathan & Urwin (2005) also found that people liked to live in the city centre for convenience as well as the buzz of the city centre. For Seo (2002), the availability of cultural and leisure facilities was a relatively minor consideration in terms of attracting new residents with practical concerns cited as more important. This was also echoed by Tallon and Bromley (2004), although they make distinctions between people who see city centre living as more practical and those who were looking for a certain lifestyle.

Table 2.1. Key studies addressing residents' experiences of city centre living

Author & Country	Methods	Key findings
Allen (2007) UK	Qualitative interviews with stakeholders, focus groups with residents in Manchester	Typology of residents 'counterculturalists', 'successful agers', 'city centre tourists'
Doucet (2009) UK	Qualitative interviews in Leith, Scotland with non-gentrifying populations (people who have lived in city centre for a time and not been displaced)	New housing was not being constructed for people who live in the area –out of price range. Price concerns may restrict the use of new amenities. Some residents positive about changes. Changing image of the city as a result of the new developments – more attractive and respected area. For some residents there was an 'us and them' feeling, for others there was not such a divide
Heath (2001) UK	On street questionnaire survey in three provincial cities	Division between urbanized and suburbanised - some people would not want to move to city centre
Nathan & Urwin (2005) UK	Case studies of three UK cities Census analysis, lifestyle data analysis, focus groups, interviews	City centre dwellers mainly young and short term
Seo (2002) UK	Survey of city centre residents in Manchester and Glasgow	Important feature of city centre –close to work, central location. Differences between inner and central city residents
Tallon & Bromley (2004) UK	Large scale interview surveys in Bristol and Swansea	Practical mundane features of living in the city centre more important than lifestyle considerations. Age differences –younger people keen on social and cultural facilities, older people more concerned about quality of environment

Research has also explored disadvantages of living in the city centre. In the work of Heath (2001) for people who would not consider living in the city centre considerable disadvantages were cited, including busyness, noise and perceptions of safety and crime as well as traffic and congestion. A lack of public and open space was considered a problem. In Nathan & Urwin's research in Manchester, Liverpool and Dundee, people complained about small, specific things about their area, for example, the quality of buildings. Noise, pollution and lack of green space were the biggest complaints about the city centre itself. In Dundee, respondents criticised the design of new buildings and the aesthetics of regeneration of the city (Nathan & Urwin, 2005).

Nathan & Urwin (2005) highlight the concept of tradeoffs which was important for understanding how residents viewed city centre living. Thus living in a convenient and vibrant city centre may entail tolerating noise and less outside space. These tradeoffs were generally accepted for the period of time when people felt that positives outweighed the negatives. For Nathan & Urwin (2005) it was generally when people reached a different stage in life that the tradeoffs changed, although this was not necessarily universal.

2.1.2 Differences between residents

Recent research has questioned the previously held view that city centre dwellers are particularly homogenous with regard to characteristics and lifestyle (e.g. Allen, 2007). Increasingly it appears that research is operating to make distinctions between different city centre dwellers in terms of views about the nature of their living in the city centre and the way in which they use the city centre.

Research has suggested that people may differ in the value placed upon the lifestyle aspects of living in the city centre in comparison to practical concerns. Tallon and Bromley (2004) and Young (2006) both found that some people were more interested in convenience while others were concerned with the lifestyle offered by the city centre.

Significantly, Heath's study, which explored the views of non-city centre dwellers, found that many people did not wish to live in the city centre, not because of any imagined problems related to the city centre, but because of a preference for suburban or country alternatives. These people were seen as least likely to be persuaded of the benefits of living in the city centre.

'The results suggest that city-centre living will not be appropriate or desirable for everyone and indeed it is probably unlikely to be appropriate for many people.'

(Heath, 2001, p469)

While researching people who do not live in the city centre would yield different results to interviewing those that do; Heath's conception that some people are more interested in suburban life whilst some are committed to urban life may also have relevance to how some people who live in the city centre conceive it.

The work of Allen (2007) is insightful in highlighting potential differences within the city centre population. Through qualitative research in Manchester he identified three distinctive groups of people who live in the city centre, the first group are 'counterculturalists', who were the first to return to city centre living, they identified most strongly with the conventional idea of gentrifier, seeking to construct a sense of distinction from suburban and other city centre dwellers in their housing choices and lifestyle. 'Successful agers' tended to be over 50 and were people who had previously lived in suburbs, had families and had decided to move into the city in order to have a particular lifestyle and access to cultural facilities such as theatres, classical music and restaurants. Both of these groups are thought to be 'authentic city centre dwellers' because they have desire and commitment to stay within the city centre. In contrast, the final group who are perhaps seen as typical city centre dwellers are 'city centre tourists', these are young and (mostly) single professionals. These city centre tourists often appear to be 'experimental' and living the city centre lifestyle (perhaps these correspond to the groups that Bromley and Tallon perceive as living the city centre lifestyle), although Allen suggests they are not particularly 'postmodern' because they have a traditional outlook and want to move out to the suburbs at a later stage (Allen, 2007).

2.2 Green space and health

A number of large-scale studies have been conducted which explored relationships between green space and health outcomes (Table 2.2). Takano et al (2002) undertook a longitudinal cohort study of elderly people to assess the relationship between longevity and green walkable spaces (such as parks, tree lined streets) near to their place of residence. Survival rates were greater for residents who had a place near their residence for walking, and those who had nearby parks or tree lined streets. Indeed, walkable green spaces were positively and significantly associated with five year survival, and this was independent of features such as age, marital status, sex, socio-economic status and attitude towards community (Takano et al, 2002).

This appears a striking finding; however, it is not known why there is an association between living near green spaces and longevity. For example, whether the people in the study physically used the green spaces or observed them (or neither). Therefore one could ask whether it is observing the green space, the physical activity that takes place within it, some relationship between the two, or indeed whether there is some other factor not yet considered which brings greater longevity. For example, it could be a question of reverse causality, in that healthier people chose to live nearer greener areas. Adams and White provide an insightful critique when they highlight that people were asked to consider green spaces that were near to them. This is highly subjective and it may be that people who used green spaces were more aware of them and thus more likely to say they have green spaces near to them (Adams & White, 2003).

Mitchell and Popham (2008) also explored the relationship between green spaces and mortality, using green space data from the Generalised Land Use Database which was compared with mortality records for every Lower Super Output Area (LSOA) as well as three specific causes of death: circulatory disease, lung cancer and self harm. It was found that inequality in all-cause and circulatory disease mortality (related to income deprivation) was lower in populations who live in the greenest areas than in those who have less exposure to green space. There was also an independent association between residence in greenest areas and decreased rates in all-cause and circulatory mortality.

The health promoting possibilities of green space has been explored by a large-scale Dutch study conducted by de Vries et al. Land use data was tallied with self-reported health data from over 10,000 people. The results suggested that people who live in greener environments were significantly healthier than others. People in urban areas also tended to have more negative symptoms as well as a higher risk of mental illness, however there was found to be no influence upon general health. As well as high negative correlation between urbanity and green space, it was found that green space was related to health indicators to a greater degree than urbanity level (de Vries et al, 2003).

Despite these conclusions the authors point out that the health effects of green space are only apparent in moderate and low levels of urbanity and not high levels. Thus it cannot be said that green space in highly urban areas made a difference to health. The authors themselves suggested

the possibility that quantity of green space is a new indicator for urbanity, and this means that there is the possibility that relationships between green space and health is, for example, related to less healthy life styles in urban areas, rather than the absence of green space (de Vries et al, 2003). This point seems particularly salient when we consider that much of the green space considered was agricultural land. A further criticism of this study is that a number of potential confounders were not considered, for example, personality –it is possible that certain personalities chose to live in greener areas and it is personality that influences health as opposed to the green space (RMNO, 2004).

Table 2.2. Large scale studies exploring general health outcomes

Author(s) country	Methods	Key findings
De Vries et al (2003) Netherlands	Data on amount of green space in environment combined with health data for over 10,000 people. Controlling for socio-economic status, demographic characteristics and urbanity	Green space positively related to all health indicators. Stronger association than for urbanity.
Maas et al (2006) Netherlands	Study of 250,782 people. Completed self-administered form on perceived general health and socio-econ status. Compared with green space data that shows % of green space within both 1 and 3 kilometre radius around postal code coordinates for each household.	% of green within both 1 and 3 km shows positive relationship to perceived health. Relationship present at all degrees of urbanity. Relationship appears slightly stronger for elderly and people of lower-socio-economic status.
Maas et al (2009) Netherlands	Calculated amount of green space within 1 and 3 km radius of postcode coordinates of home, and compared with social contacts and health of 10,089 residents of Netherlands	People with more green in 1 km (but not 3km) radius have better self perceived health and fewer health complaints,. People with more green space in their living environment feel less lonely and experience less shortage of social support, but not more contact with neighbours. Relationship between green space and loneliness and relation between green space and shortage of social support was strongest in urban areas.
Mitchell & Popham (2008) UK	Generalised Land Use Database for green space includes parks, other open spaces and agricultural land. Percentage of green space compared with mortality records for every LSOA as well as 3 specific causes of death: circulatory disease, lung cancer and self harm	Inequality in all cause and circulatory disease related to income deprivation is lower in populations who live in greenest areas than in those who have less exposure to green space. Was also independent association between residence in greenest areas and decreased rates in all-cause and circulatory mortality.
Takano et al 2002 Japan	Longitudinal cohort study of elderly residents in Tokyo. 3144 completed mail questionnaire green spaces in area recorded. Residents followed up after 5 years and mortality of residents recorded.	Having green space in neighbourhood associated with greater longevity.

Maas et al (2006) compared perceived health and green space within both one and three kilometres and found a significant positive relationship to perceived health. The relationship was present at all degrees of urbanity; however for people in strongly urban areas only the amount of green space within a three kilometre radius was related to good health. The authors suggest the agricultural land is the type of green space that is most consistent with an impact on

health. It is possible that there is agricultural land /countryside within three kilometres of strongly urban area but not so likely within a one kilometre area, again suggesting there needs to be caution when interpreting the results. As the authors recognise, the people within a three kilometre radius of agricultural green space or even a significant amount of green space are likely to be on the edge of an urban area.

These population level studies provide insight into possible relationships between green space in the local environment and health. The following section explores the possible mechanisms behind any relationships. This review will also consider qualitative evidence, and research which addresses how the users themselves feel about green spaces and its benefits.

2.3 Green space and physical activity

One possible causal pathway between green space and health outcomes is increased physical activity. Along with diet, physical activity is now known to be an important determinant of health and wellbeing (Pretty et al, 2003, Giles-Corti et al, 2002, Kirtland et al, 2002); with significant health benefits including reducing premature death from coronary heart disease (Hardman & Hudson, 1989), hypertension, colon cancer, diabetes mellitus (Vojnovic et al, 2005). Additionally, benefits from physical activity should not be conceived of simply in terms of physical wellbeing but also mental benefits such as reduced depression and reduced cognitive decline due to ageing (Weuve et al, 2004, US Department of Health and Human Services 1996). Despite this, people in industrialised countries have become increasingly sedentary in all aspects of daily life, this includes during work time, travelling to and from work as well as during leisure time (Pretty et al, 2003). With the recognition of the benefits of moderate activity, research has begun to focus on the aspects of the built environment that may encourage physical activity, such as walking and cycling.

Much research regarding physical activity and green space has focused upon whether physical activity is correlated to access to green space defined in a number of ways. The findings in relation to this are equivocal (Table 2.3). Thus, Giles-Corti et al found that walking at recommended levels was significantly associated with having good access to attractive open spaces (Giles-Corti & Donovan, 2002). In contrast Duncan & Mummery (2005) found that people who were further than 0.6km away from parkland and people who had unacceptable levels of connectivity were more likely to attain recommended levels of activity than those who lived closer and had more direct routes. Explanations offered by authors for this included the suggestion that more active people may be more likely to overcome barriers to physical activity, i.e. go outside their area and perhaps walk further to the park.

Using postal questionnaire and objective assessment of green space Hillsdon et al (2007) found that there was no significant association between recreational physical activity and self-reported health problems. Furthermore and most significant there was no association between recreational physical activity and access to green spaces. Indeed the authors explain that those

with best access to high quality large green space report lower levels of physical activity than those with poorest access.

This is a similar finding to the previous study and leads to the consideration that people are not using the local environment for physical activity. It is possible that potential users of green space may not view quality in the same light as do the researchers and thus what qualifies as good quality open space for the researcher may not be so for the participants (this is of course true for all studies that employ 'objective' measures of attractiveness or quality).

Furthermore, there may be other attributes of green space not captured through the tool assessing quality but may influence physical activity levels. An example is Hillison et al's (2007) study, where green spaces smaller than two hectares were not considered. Previous research has suggested that larger forested areas outside the urban core were important for weekend recreation, but the smaller local spaces in the city centre were more important for everyday life (Van Herzele and Wiedermann, 2003). Thus small areas of natural vegetation are widely used, particularly when in built up residential areas (Florgard & Forsberg, 2006) and may play a particular role for frequent recreation. Of course there would be considerable practical difficulties in surveying spaces of all sizes, however excluding smaller spaces means that a whole swathe of green spaces that may (or may not) have been important in providing spaces for physical activity have been ignored by this research. Including smaller spaces may possibly have yielded different results.

How access is defined is also an issue with Witten et al (2008) who found no relationship between access to open spaces in terms of the minutes taken to drive to green space and physical activity, sedentary behaviour and BMI, after controlling for socio-economic variables. The definition of access as acknowledged by the authors is narrow. For example, there is no indication of the quality of the green spaces that are nearest (which is likely to affect whether they are going to be used for exercise and thus have an impact upon the outcome measures) and secondly, would everyone who used green spaces visit by car? Quite a large number may choose to visit on foot, or by other forms of transport and thus analysing their visitation in terms of minutes it took to drive to the space would misrepresent their access. A further significant point is that most people in New Zealand are deemed to have good access to green spaces, which suggests that there is little difference between people and that it is likely to be a 'non-discriminatory indicator' i.e. all above certain level therefore little to discriminate between them (Witten et al, 2008). This of course leaves open the possibility that if they were comparing drastically different access then there might be different findings.

Ellaway et al (2005) conducted a wide ranging study with nearly seven thousand people in over eight countries. It was found that greater amounts of greenery but fewer incivilities such as litter and graffiti were associated with higher levels of physical activity and not being overweight or obese. Indeed it was found that people living in environments high in greenery were found to be more than three times as likely to be more physically active, and have 40%

less chance of being obese (Ellaway, 2005). This suggests the quality of the environment is particularly important. However significantly, as with the other studies that looked for relationship between green space (or greenery) and physical activity, we have no knowledge of whether people were actually *using* that environment for physical activity, or whether the quality of the environment is a proxy or indicator of another factor. Although the authors suggested socio-economic status was controlled for, I would question if that was possible as most areas are to a degree defined by socio-economic status. In addition a green environment was not the same as discrete green spaces which may be used as destination for physical activity, so while people may be using greener streets they may not be using green spaces.

Table 2.3. Physical activity and access to green spaces

Author(s) country	Methods	Key findings
Duncan & Mummery (2005) Australia	Examine different environmental features using GIS mapping techniques along with a telephone questionnaire about physical activity levels and subjective views of environment	People who were further than 0.6km away from parkland and people who had poor levels of connectivity were more likely to attain sufficient levels of activity than those who lived closer and had more direct routes.
Ellaway et al (2005) 8 European Countries	Face-face interview Survey of 6919 adults in various countries. Self-report data on health (including self-assessed height, weight and physical activity). Residential environment surveyed by researchers for incivilities (graffiti, litter, dog mess) as well as amount of greenery.	Higher levels of greenery but lower levels of incivilities such as litter and graffiti are associated with higher levels of physical activity and not being overweight or obese. People living in environments high in greenery were found to be more than three times as likely to be more physically active, and have 40% less chance of being obese.
Giles-Corti & Donovan (2003) Australia	Household interview study with 1803. Objective measurement of environment variables-street and access to public open spaces. Attractiveness of open spaces objectively measured.	Most people do not do enough walking. Access to open space positively associated with walking
Giles-Corti & Donovan, 2002 Australia	Stratified sample of 1803. Neighbourhoods in which people live stratified by socio-economic status (SES). Objective assessment of environment, interviewed about physical activity.	Walking for transport and walking at recommended levels associated with access to attractive public open spaces. People in low SES areas more likely to participate in walking for transport, less likely to do vigorous activity. People living in low SES areas -more negative perceptions of their area.
Hillsdon et al (2007) UK	4950 participants from EPIC study. The amount of physical activity done in past year by the respondents was determined by postal questionnaire. Quality of green space was objectively assessed by researchers.	No significant association between recreational physical activity and self-reported health problems. No association between recreational physical activity and access to green spaces. Those with best access to high quality large green space report lower levels of physical activity than those with poorest access
Witten et al (2008) New Zealand	Calculated access to parks and beaches defined in minutes drive for 38,350 neighbourhoods. Data matched with face-face survey of data of 12,529 people asked about sedentary and achieving recommended levels of exercise and BMI.	No relationship between access to open spaces in terms of minutes drive and physical activity, sedentary behaviour and BMI, after controlling for socio-economic variables. Some evidence of a positive relationship between access to the beach and BMI and physical activity.

2.3.1 Physical activity and using green spaces

In order to really understand the role of green spaces in the promotion of physical exercise it is necessary to be aware of people's usage of green space (Table 2.4). The relationship between physical activity and *using* green spaces was explored by Nielsen and Hanson (2007) in a Danish survey investigating access to and usage of green space and its relationship to stress and obesity. It was found that access to gardens and short distances from green space were associated with less stress and less obesity. However, significantly the number of visits cannot explain the effects of green space on health indicators (Nielsen & Hanson, 2007).

This is not to say that green spaces are not used effectively as places to exercise, even if having nearby green spaces does not make a significant difference to the amount of physical activity on a population wide level. The next study by Krenichyn, (2005) takes a different methodological approach. Using qualitative interviews it concentrates on the ways in which outdoor environment might '*encourage & enhance, or discourage & detract from, physical activity*' (Krenichyn, 2005, p4), for women using an urban park in Brooklyn, New York (Krenichyn, 2005).

Many of the women said that they preferred the park to other nearby outdoor areas as places in which to exercise. They enjoyed the physical effort needed when exercising within the park because of the topographic contours and also appreciated that there were fewer obstacles than on streets, and less traffic. Practical concerns were also apparent such as the provision of toilets and drinking fountains. In addition, many women felt that they were to a degree protected from harassment from men that they experienced when dressed in tight exercise clothes on the streets, by virtue of the fact that there were others like them. Nature-like features of the park were cited by many women as important. While the park was seen as a beautiful setting, it was not just admired for its aesthetics qualities but its spiritual qualities and the sense of freedom it provided (Krenichyn, 2004, 2005).

It is worth offering a note of caution here, as it is possible that those who did not prefer the park would not be in the sample, and significantly, may not be in the park at all. Nevertheless, it is important to gain insight into the factors which attract and encourage people to use open spaces for exercise, as this is an under-explored area (Bedimo-Rung et al, 2005). This study demonstrated that green space may provide a quality to physical activity that may not be gained in an indoor facility even if it will not necessarily mean that on a population level people were exercising at a greater level. It is therefore important to explore whether there were any benefits of people exercising in parks, in order to know whether it is worthwhile pursuing endeavours to attract people to parks or other green areas for exercise.

The concept of 'green exercise' is important. Research conducted by Pretty et al (2003, 2005) suggested the particular benefits of exercising within a green environment are synergistic (i.e. benefit of exercising and being in green space work together). One such study had people engaged in physical activity on a treadmill while observing simulated views of a) pleasant rural

and urban environments, b) unpleasant urban and rural environments and c) no view. It was found that while all categories showed improvements while exercising, people who exercised while observing pleasant green urban and rural views had lower blood pressure, enhanced mood and improved self esteem than people in the other conditions (Pretty et al, 2005a).

It could be argued that it is the pleasantness rather than the greenness that is important (suggesting this is why the unpleasant countryside does not get a positive response). However the pleasant urban views also have green within them. This of course raises the point about the quality of the environment if people are to gain benefits; not all green areas are beneficial and indeed a poor green area may be worse than a poor urban area (Pretty et al, 2005a).

Further research has been conducted in the countryside, which while not strictly applicable to the urban experience, can provide insight to the importance of green areas within the city environment especially for people for whom it is difficult to get into the countryside. People in a variety of countryside locations in the UK engaged in different forms of physical activity and wellbeing and a number of different measures were obtained. There were significant findings such as increased self esteem and reductions in emotions such as anger, depression and tenseness (Pretty et al, 2005b). While all participants were already active, and this was cited as a limitation because they are assumed already to be healthier (Newton, 2007); it could be argued that reductions in negative emotions and improvements in self-esteem as benefits of participating in physical activity within green space, may be even greater for people who are currently inactive, and this is suggested by the authors (Pretty et al, 2005b).

Table 2.4. Studies exploring physical activity and using green spaces

Author(s) Country	Methods	Key findings
Krenichyn (2005) USA	Qualitative interviews with female joggers in city park about experiences of physical activity in park.	Many preferred park as opposed to other places to exercise. Effort required because of topographic contours. Protected from harassment as others in similar position. Aesthetic and spiritual value of park-sense of freedom.
Nielsen & Hanson (2007) Denmark	Survey exploring access to and usage of green space and its relationship to stress and obesity.	Access to garden and short distances from green space associated with less stress and less obesity. Number of visits cannot explain effects of green space on health indicator, and it is suggested that relationship is related to quality and character of neighbourhood environment.
Pretty et al (2005a) UK	100 people engaged in physical activity on a treadmill while observing simulated views of different scenes: pleasant rural and urban environments, unpleasant urban and rural environments and no view. Blood pressure, self-esteem and mood tested before and after.	All categories showed improvements while exercising but people who exercised while observing pleasant green urban and rural views had lower blood pressure, enhanced mood and improved self esteem than people in the other conditions.
Pretty et al (2005b) UK	People in variety of countryside locations in the UK engaged in different forms of physical activity. Wellbeing was ascertained using various measures.	Significant findings such as increased self esteem and reductions in emotions such as anger, depression and tenseness.

2.4 Restoration and relief from stress

It has often been a claim for the benefits of nature that it allows for restoration of the mind and body and an escape from the stresses of everyday life. Olmsted, the 19th Century architect and city planner who designed Central Park in New York argued that the parks provided a way to counter the stresses and strains of living and working in an industrial city as well as providing an inherent fascination for people.

'(Nature) employs the mind without fatigue and yet exercises it; tranquillises it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system.'

(Olmsted, 1865, cited in Ulrich, 1991)

Academic research has increasingly asserted that green spaces and other forms of nature help people to recover from stress and mental fatigue and that this is the primary way in which nature may have a positive impact upon well being and health (RMNO, 2004). This is particularly significant as stress and other mental health problems are becoming increasingly common in Western Societies (Pretty et al, 2005).

This restoration has been explored in a number of different studies and is primarily based upon the suppositions of the similar theories of Kaplan & Kaplan and Ulrich, known as 'Attention Restoration Theory' and 'Stress-Reduction Theory' respectively. While these are not solely referring to urban nature as such, they provide the backdrop to many studies which explore urban green areas and can provide insights into the possible mechanisms by which green spaces in urban areas may reduce stress. In addition, many of the experiments and field work used to support this is based upon comparison of urban with green situations and views (see Tables 2.5 for experimental studies). Both theories view the role of nature in wellbeing to be innate as opposed to culturally acquired, which is something which would perhaps have been contested by writers who propose the social construction of nature and particularly the ideological contrast between urban and nature (Edensor,2000, Bunce,1994).

For Kaplan and Kaplan (1989) people often experience what they call attention fatigue. This occurs when people experience a prolonged period of directed attention, which is difficult to sustain (for example, concentrating on a task). People then become irritated and their performance impaired. Greenery and green spaces are thought to help with recovery from attention fatigue. Firstly, through the function of 'being away' because nature provides the chance for people to get away from mental strain, and routine activities and stresses (in both a physical and mental sense); secondly, through the function of 'soft fascination'; where green areas automatically attract your attention without the need for concentration. For a green space to be effective at facilitating restoration it must have 'coherence/extent', which is characterised as the extent to which it provides the ability to feel immersed in the setting, for example, away from urban influences, and secondly 'compatibility' which is the degree to which the setting matches peoples' preferences.

Ulrich's stress reduction theory is similar although it suggests that natural environments provide restoration from any form of stress, not simply attention fatigue. Stress of course is a phenomenon that has both physiological aspects of various bodily systems including endocrine, skeleto-muscular and cardiovascular systems that help the body in coping with stressful situations. Psychological responses include emotions such as anger, sadness, fear, as well as appraisal of the situation (Ulrich, 1991). Ulrich suggests that we are evolutionally programmed to respond in a positive way to natural environments including green space and water and simply looking at a view of a green space will produce a positive psycho-physiological (i.e. both psychological and physiological) response that significantly reduces stress. Urban environments in contrast may hamper any recovery or be a cause of stress themselves.

Research which provides support for these theories comes from a variety of sources and has been tested and explored in different ways. A frequently cited study (Ulrich, 1984), was conducted in a Pennsylvania hospital using medical records of patients who had undergone surgery and whose beds were in rooms that had either views of a brick wall or trees but were otherwise identical. The results demonstrated that patients who had views of trees had shorter stays in the hospital after an operation, required fewer pain relief drugs and received fewer negative staff reports than patients who had had a view of brick walls (Ulrich, 1984). It is important to recognise as Ulrich reminds us, of the possibility that it was not the urban nature of the view which provoked such reactions, but the fact that the view of the brick wall was particularly bland and unexciting, and that perhaps a cityscape may be more uplifting to some under-stimulated patients (Ulrich, 1984).

In a later study, Ulrich et al (1991) conducted an experiment into the effects of viewing natural and urban scenes on people who watched a horror film, to investigate the extent to which different outside environments helped or hindered recovery from stress. Results demonstrated that people who had viewed natural scenes recovered faster than people who viewed urban scenes.

Other researchers have found similar benefits when conducting controlled experiments into viewing nature. For example, prisoners were found to have fewer symptoms of stress, such as headaches and digestive illnesses if they had views of nature (Moore, 1981). Tennessen and Cimprich (1995) conducted an experiment with university students with a similar focus. Participants were given an attention test and the scores of those who had natural views and those who did not were compared. It was found that those who had views of nature had better test scores than those with urban views.

Table 2.5. Experimental/intervention studies

Author Country	Methods	Key findings
Hartig et al (2003) USA	Experimental study of 112 university students with normal blood pressure. Compared psycho-physiological stress recovery for either walking in green (nature reserve) or urban environments, measured in various physical and psychological measures	Reduced blood pressure for people sitting in room with green views compared to those with no windows. Subsequent walking in rural environment facilitate greater reduction in blood pressure than walking in urban environment. Performance on attentional test improved in rural & declined in urban environments. Positive emotions increased and anger reduced in rural environment opposite results in urban environment
Hartig & Staats (2006) Sweden	Experimental study. 103 college students in Sweden, went on walk either in urban or forest environments after being exposed to either high fatigue condition or less fatigue condition (so four conditions altogether)	People in both fatigued conditions reported more positive attitudes towards walking in forest. Larger difference for people who were more fatigued. Suggested that people anticipated possibilities for restoration
Herzog et al (1997) USA	187 undergraduate students viewed sets of colour slides; ordinary natural settings, ordinary urban settings and sports/entertainment settings. Rated for restorative potential.	Natural settings perceived to have highest restorative potential, urban settings lowest and sports/entertainment settings in middle.
Karmanov & Hamel (2008) Netherlands	Experimental study of 85 college students. Watched video either of urban or natural environment after sitting re-sit examination (naturally induced stress). Completed Profile of Mood States Questionnaire (POMS)	Both urban and natural environment had restorative effect. Natural environment did not have impact upon depression, but had impact on anger and tension.
Ottoson and Grahn (2005) Sweden	Intervention study involving 15 elderly people living in residential home for very elderly. Concentration, heart rate and blood pressure were tested before and an hour after an hours rest in either the garden or their favourite room.	Being in natural outdoors environment (garden) resulted in improved concentration after a visit to the garden, however they found no statistical effects on heart rate or blood pressure.
Tennessen & Cimprich (1995) USA	72 undergraduates completed different tests to measure directed attention. Tests took place in their dormitory rooms which had views categorized into four groups ranging from all natural to all built.	Having views of nature was associated with better test scores than those with urban views. Suggests that people have access to attention restoration through nature.
Ulrich, (1984) USA	Study conducted between 1972 and 1981 in a Pennsylvania hospital used medical record of 46 patients who had undergone gall bladder surgery and whose beds were in rooms that had either views of brick wall or trees. Compared recovery after operation.	Patients who had views of trees had shorter stays in the hospital after operation, required fewer pain relief drugs and received fewer negative staff reports than patients who had had a view of brick walls.
Ulrich et al (1991) USA	120 undergraduate students watched stressful film followed by either video of natural or urban scenes. Physiological effects of stress that were measured included: heart rate, muscle tension, skin conductance pulse transit time to see whether any influence of follow up video on stress.	Results demonstrated that people who had viewed natural scenes recovered faster than people who viewed urban scenes.

The role of green space in restoring attention has been demonstrated in children with Attention Deficit Disorder (ADD) (Faber Taylor et al, 2001). After surveying parents it was discovered that for children with ADD, activities that were performed in green settings were more likely to result in a reduction in ADD symptoms and these symptoms were milder for children who played in greener settings (Faber Taylor et al, 2001) (See Table 2.6 for survey studies involving restoration). Ottoson and Grahn (2005) looked to explore the validity of the theories of both the Kaplans and Ulrich, by examining how older people in a residential home reacted to being in an outside environment as opposed to an inside one. This was tested in terms of focus (consistent with Kaplans) and stress reduction measured in blood pressure and heart rate (consistent with Ulrich). They found that being in a natural outdoor environment, for example a garden, resulted in improved concentration after a visit to the garden but no statistical effects on heart rate or blood pressure. The authors suggest this is evidence in support of the Kaplan's theory (Ottoson & Grahn, 2005). However one caveat could be suggested as to whether people were stressed initially. The research that supports Ulrich often involved inducing stress into people (or being in a very stressful situation) and then seeing how they recovered, by viewing nature. However, if the elderly residents were not stressed before going into the gardens then arguably they were unlikely to see the corresponding drop in blood pressure and heart rate that would have resulted if stressed.

An explicit association between level of stress and visitation of green space was found in the research of Grahn & Stigsdotter. They concluded that the more people visited green spaces, the less often they experienced stress and also the time spent in green space was related to stress. In addition if people yearned to visit green spaces more often than they could they were more likely to feel stressed (Grahn & Stigsdotter, 2003).

Many of the studies (Table 2.5) mentioned above have methodological concerns, for example, small sample sizes. Specifically, the Ulrich studies which are widely cited have not been replicated even though conducted a considerable time ago and specifically the 1984 study was conducted over a long period of time meaning that people who were in different viewing conditions could have had surgery years apart (RMNO, 2004). Despite this, taken as a body of work, it can increasingly be confidently asserted that there are significant benefits of contact with nature in terms of restoration or stress reduction.

Table 2.6. Survey studies relaxation/restoration

Authors Country	Methods	Key findings
Faber-Taylor et al (2001) USA	Survey of parents of children with ADD. Focus on role of green spaces in restoring attention.	Children with ADD performed better after playing in a green environment. Activities that were performed in green settings were more likely to result in reduction in ADD symptoms and ADD symptoms were milder for children who played in greener settings
Gidolf- Gunnarsson & Ohrstrom (2007) Sweden	500 participants answered mail questionnaire, asking about access to green space, noise disturbance, use of outdoor spaces, stress related symptoms	Higher % of those who reported poorer access to green spaces said noise impacts upon desire to stay outdoors. 2x greater noise disturbance for residents with 'poorer' than better access. Fewer residents with 'better' availability to green areas had less stress related psychosocial symptoms than residents with 'poorer' availability.
Grahn & Stigsdotter (2003). Sweden	Questionnaire study of 953 randomly selected people in 9 Swedish cities asking about health and usage of green space in city	The more people visited green spaces, the less often they experience stress. Time spent in green space was a relevant factor. If people felt that wanted to visit green spaces more often than they did, they were more likely to feel stressed. Also importance of gardens/or space next to home-people did not compensate for lack of garden with green space usage
Hartig et al (2007) Sweden	Epidemiological study –using time series data aggregated for country of Sweden - relationship between cold summer weather and use of depression medication SSRI	Negative correlation between mean temp in summer and dispensation of SSRI. Suggested that people therefore have less opportunities for outdoor recreation and this increases depression.
Nielsen & Hansen (2007) Denmark	Questionnaire Survey of c1200 Danes. Focused on activities in green space and perceptions of green space as well as freq of visit to green space. Health questions such as height and weight and stress.	Distance to green areas better predictor of stress than usage of green spaces. Access to green also associated with lower probability of obesity. However this is not related to usage of spaces. Thus suggests more about quality or character of area rather than green itself
Hansmann et al (2007) Switzerland	164 people took part in structured interviews in urban forest and a city park. Two subjective measures of psychological distress (stress, headaches) and subjective measure of wellbeing (feeling well-balanced). Activities performed in green spaces also recorded	Over 90% of people believed that green space had a positive affect on wellbeing and health, including reduction in headaches and stress. Suffering from headaches and stress decreased significantly and feeling well-balanced increased. Positive effects are greater with more active behaviours (supports idea of doing exercise in green space) and longer visits.

Many studies that have a survey/interview approach to research about stress reduction and getting away from urban environments are often cited as indicating the benefits of green environments (Coles & Bussey, 2000, English Nature, 2003, Macnaghten & Urry, 2000) and that people perceive greener environments to be more restorative (Herzog et al.1997). Studies which explore multiple experiences and benefits are grouped according to methodology (Table 2.7 & 2.8)

Table 2.7. Questionnaire/mixed methods studies exploring various aspects of experience of green space

Author Country	Methods	Key findings
Burgess et al (1988) UK	Greenwich Open Space Project. In depth discussion groups, 212 structured interviews with residents. Asked about usage, feelings about local green spaces –how people understand urban spaces and meanings that they have for them.	Sense of satisfaction experienced by people being in outside space and being in nature. Spaces support social interaction. Concerns about management and safety – threaten experience. Spaces not experienced in isolation - as part of urban experience.
Chiesura (2004) Netherlands	Visitor survey with 467 visitors to Vondelpark, Amsterdam. Explore reasons for using park, emotional dimensions and benefits.	Nature is source of positive feelings and benefits for people. Relaxation, listen and observe nature and escape from city –main reason for visiting as well as social reasons such as be with children
Coles & Bussey (2001) UK	2 Questionnaires (592 and 356 respondents), on site interviews (295 interviews in 18 woodlands) and focus groups explore personal valuations of local woodlands such as emotions and experiences.	Role of woodlands in creating escape from urban environment, contact with nature and stress reduction. Woods do not have to be natural, only appear so. Importance of maintenance and removing urban negative influences such as rubbish –do not make it appear natural. Importance of proximity
Ellis et al (2006) USA	122 respondents to main survey. Amount of retail land use measured using GIS, and tree and shrub cover measured using satellite imagery of neighbourhood. Neighbourhood satisfaction recorded in questionnaire	Retail land use negatively associated with satisfaction. Tree and shrub cover mediate negative relationship between retail land use and neighbourhood satisfaction.
English Nature (Bell et al, 2003) UK	Interviews, focus groups and questionnaire with 460 people at various green spaces explore relationships people have with green spaces	Main reasons for visit- walk dog, exercise and pleasure of nature. Reduction of stress and relaxation important.
Jorgensen et al (2002) UK	Photographs of a view in Parsons Cross Park digitally modified to show different levels of vegetation under-storey (amount of vegetation growing underneath trees and thus influences views through trees) combined with different levels of vegetation enclosure on either sides of a path. Respondents rate the images, in terms of preference and safety	For safety the respondents preferred no enclosure (i.e. one side of pathway was open) and less vegetation under storey. However were interactions between treatments which suggest not this straightforward. E.g. at ‘partial enclosure’, no difference in safety for different levels of understorey.
Jorgensen et al (2007) UK	Postal questionnaire (336 respondents) to people living in area of Warrington set within woodland setting. Semi-structured interviews with 39 of questionnaire respondents.	Negative and positive meanings of woodland setting. Woodland was many people’s favourite place, although often seen as unsafe. Appearance of street related to how people feel about environment and seen as symbol of quality of the community. People want appearance of management.
Kaplan (1993) USA	Conducted 2 questionnaire studies that explored role of nature in workplace, with 168 and 615 participants respectively.	Study 1: fewer ailments for people with views of nature and greater job satisfaction. Study 2: having more natural elements in view –greater satisfaction.
Kaplan (2001) USA	6 apartment communities which had a variety of views, including trees, rivers, grass as well as built up areas of other apartments and parked cars. Using	Having nature views played a substantial role in participants’ satisfaction with residential context, as well as a significant but smaller role in the aspects of

	objective observation as well as resident questionnaires asking about satisfaction with nature and residential environment.	psychological wellbeing. Landscaped settings and gardens contributed to neighbourhood satisfaction, while the less managed areas contribute to nature satisfaction
Kuo et al(1998) USA	Photo simulations created of three different densities of trees, and two different levels of grass maintenance. Participants were asked to rate in terms of preference and sense of safety.	People preferred spaces with more trees and better maintained grass, and indeed they felt that more trees created a safer environment.
O'Brien,E (2006b) UK	Focus groups and questionnaire of residents in south London. Asked about how experience and feel about local woodlands.	Many different attitudes towards local woods. Green spaces valuable part of environment, as provide opportunities for contact with nature.
Ozguner & Kendle (2006) UK	On-site questionnaires at two sites. Preferences for naturalistic spaces such as woodlands, or more formal garden arrangements. Values and benefits that may be gained from these different sites were also explored.	Both sites seen as safe and provide benefits. The more managed site of gardens was seen as safer by the majority of respondents when they compared the two.
Sanesi & Chairello (2006) Italy	Telephone interview study of 351 residents in Bari. Questions on perceptions and behaviour regarding city green spaces.	Green space perceived as important for a number of different reasons, improving climatic conditions, socialising.
Tyrvaainen et al (2007) Finland	Mail questionnaires. Asked to name their favourite places and asked about usage of and benefits of green spaces.	Spaces provide contact with nature, stress relief, aesthetic experiences, while environmental benefits such as pollution and noise control were considered less important .Favourite areas are not necessarily the most used

Local Authority research in the UK with large numbers of respondents suggested that people went to parks to relax and for peace and quiet (Dunnett et al, 2002). These results also echo Chiesura's findings from a survey of park users in Amsterdam, where 'to relax' was the most frequently mentioned answer followed by 'listen and observe nature; and then 'escape from city' (Chiesura, 2004). Indeed the benefits provided by green spaces that were most often espoused by respondents to Tyrvaainen et al's questionnaire, were recreation opportunities, contact with nature, stress relief and aesthetic experiences (Tyrvaainen et al, 2006). The restorative value of nature within a city setting was found in the results from interviewees in Krenichyn's (2004) study of joggers in Prospect Park in New York.

In the research of Coles & Bussey, woods were seen to provide refuge from the urban environment, reduce stress and provide contact with nature. While woods did not have to be natural in the strict sense (i.e. unmanaged), features which suggested the intrusion of humanity and urbanity diminished the woodland experience. The authors suggested this was the reason features such as rubbish, car dumping etc were seen as particularly negative (Coles & Bussey, 2001). It may also be why in the work of Pretty et al, unpleasant countryside views were viewed as less restorative even than unpleasant urban views (Pretty et al, 2003).

Being away from the urban, the city and the modern is physically and metaphorically true for those partaking in wilderness experiences and many of the women who participated in the wilderness experiences explored by Fredrickson & Anderson (1999), emphasised how far

removed they felt from modern civilisation. It was reported that they were often in awe of being surrounded by 'nature', which many had not really been exposed to before. Fredrickson & Anderson stated that many went beyond simply feeling 'away' and often felt they had spiritual experiences while in the wilderness (Fredrickson & Anderson, 1999).

The benefits of urban green spaces may be broader, in terms of contentment and satisfaction with certain aspects of life. For example, the participants in Burgess et al's interview often felt a profound sense of satisfaction at simply being in nature and experiencing the sensual pleasures that it had to offer (Burgess et al, 1988). Research has also suggested that having green in the local environment can increase both satisfaction with a job and residential satisfaction (Kaplan, 1993, 2001, Ellis et al, 2006). Residential satisfaction in particular has received interest. Kaplan suggests that views of green spaces in the residential environment play a role in people's satisfaction with their neighbourhood, and specifically landscaped settings and gardens contributed to neighbourhood satisfaction, while the less managed areas contribute to nature satisfaction (Kaplan, 2001).

Table 2.8. Qualitative research studies exploring various aspects of experiences of green areas

Author(s)	Methods	Key findings
Fredrickson & Anderson (1999) USA	Women participated in wilderness trips to Minnesota and Arizona. Completed journals. Researchers used journals to generate interview schedules. Participants in depth interviewed. Transcripts content analysed	Immersion in wilderness experiences, people were in awe of nature which had spiritual dimension. Importance of support provided by fellow women
Gearin & Kahle (2006) USA	Focus groups conducted with teenagers, and with adults. Also an accompanied walk. Attitudes to green and public spaces and through spaces such as paths or roads	Teenagers valued green space as spaces for recreation and socialising. Differences between adults and teens perceptions of what wanted in green spaces –adults wanted more defined and organised space for recreation, teenagers more flexible space.
Macnagthen & Urry (2000) UK	Qualitative focus groups with different groups in UK. Explored aspects of embodied experiences in local woodland, opportunities provided by nature.	Different groups used and talked about green spaces in different ways. Different meaning and benefits. Often valued for opposition to city
Milligan; Gatrell & Bingley (2004) UK	Participants engaged in gardening on allotments during 9 month period. Pre and post research interviews and focus groups. For gardening project –diaries used to record thoughts. Observations by researchers.	Many benefits of gardening on allotments for older people. People have sense of achievements and satisfaction from gardening. Importance of social networks and reduction in social isolation provided by communal gardening.
O'Brien, E (2006a) USA	In depth interviews and discussion groups	People value trees and forests in different ways. Participants views revolve around four main themes: personal wellbeing, identity, conflict and confusion and forest management
Rishbeth & Finney (2006) Finney & Rishbeth (2006) (UK)	Participatory qualitative research with asylum seekers/refugees involving visits to green space and. photo-elicitation and photo-journals compiled by participants	Urban green space has different benefits for people, feelings of nostalgia, opportunities for socialising, escape from stress. Mostly did not use them after the initial phase of research. Importance of highlighting experiences of people not from UK –worries about transgressing norms of behaviour

2.5 Social wellbeing

Social wellbeing and specifically the effects of residential green spaces upon social integration and inclusion will now be explored. This has been famously investigated in the work of a group of environmental psychologists in Chicago, who conducted a variety of 'natural' experiments in public housing complexes in poor neighbourhoods of Chicago, in order to see the effects of green or barren public spaces upon aspects of well being (Table 2.9).

In order to explore the possibilities of green space for social interaction and integration Sullivan et al (2004) and Coley et al (1997) compared usage of greener, tree filled spaces with barren spaces outside otherwise identical buildings. Through observation, Sullivan et al (2004), found that green areas in between buildings were used by more people than barren spaces and also that within the green spaces more people engaged in 'social' activities (i.e. social interaction). Coley et al (1997) found that the presence of trees consistently predicted use of outdoor spaces and larger groups of people were found in spaces with trees and those with more trees (Coley et al, 1997). Using the same environmental context, Kweon et al (1998) found that exposure to green spaces was associated with higher levels of social integration and a greater sense of local community for older people. Thus, by spending time in outdoor green spaces older people got to know people better and thereby gained a greater sense of local community as the link between exposure to green spaces and local community was mediated by social integration (Kweon et al, 1998).

The authors were aware that causality was open to interpretation and discussed the possible alternative reasons for their results, for example that residents who are more socially interactive planted trees to improve neighbourhoods. However this was discounted due to the trees being 25-50 years old. It is likely, therefore, that the presence of trees encourages people to spend more time in outside spaces, where they then get to know one another and as a result greater social interaction is seen (Sullivan et al, 2004).

The role of green spaces as contrasted to barren spaces in promoting the play of children was explored by Faber-Taylor et al (1998). After observing child and adult behaviour within the spaces of Ida B Wells estate, it was found that vegetative environments supported children's play and that nearly twice as many children were observed playing in spaces with many trees, as those with only small number of trees. Creative play was also more common in high vegetation spaces and furthermore children were found to have greater interaction with adults in the greener spaces.

In response to this research but seeking to explore with wider populations rather than the extreme environment of social housing explored above; Maas et al (2009) related the amount of green space within a one and three kilometre radius of postcode coordinates of homes, with social contacts and health of over 10,000 residents in the Netherlands. In this study, people with more green space in their living environment felt less lonely and experienced less shortage of social support, however they did not have more contact with neighbours.

The relationship between green space and loneliness and the relationship between green space and shortage of social support was strongest in urban areas which suggests the importance of green space in these areas. Relationships were also strongest for children and the elderly, because of having to rely to a greater degree on the neighbourhood for supporting their needs. Potential limitations acknowledged by the authors included not considering small areas of green space and not knowing whether contacts took places within the green space. They suggested it could be that green space was a proxy for another variable which influenced loneliness etc. The cross-sectional study design makes causation impossible to establish, leaving open the possibility that people with more social contacts may choose to live in greener environments.

Table 2.9. Social well being: Chicago studies

Author	Methods	Key findings
Coley et al (1997) USA	Observations conducted within public spaces of the estates. Location and number of trees within the courtyards were recorded as were the activities of people and interaction between the people that occurred in these spaces.	Trees in spaces promote social interaction: Presence of trees predicted use of outdoor spaces and larger groups of people were found in spaces with trees and those with more trees. The closer trees were to residential buildings the more accessible they were and the more people spent time outside, near them.
Faber Taylor et al (1998) USA	Observation of 64 urban spaces observed between buildings (low vegetation and high vegetation). Observed activities of children in spaces	Half the level of play as well as adult supervision in the more barren spaces than the greener spaces. Also children performed more creative play in greener areas
Kuo & Sullivan (2001a) USA	Survey of 145 female residents, comparing barren and green spaces. Aggression was measured on the Conflicts Tactics Scale (CTS) and attention fatigue was measured using Digit Span Backwards test.	Levels of aggression and violence were significantly lower among individuals who had nearby nature (spaces with trees) outside their apartments than those in barren areas. Suggest relationship was mediated by mental (attention) fatigue
Kuo & Sullivan (2001b) USA	Crime measured through crime reports filed by police and those initiated through citizen complaint. Greenery measured through aerial photos and ground level photos. Rated on scale to determine greenness.	The more dense the vegetation and greenery in public space, the less reported crimes (of all types) in buildings nearby. Vegetation explained 7-8% of variance in crime levels reported by different buildings.
Kweon, B Sullivan, W & Wiley, A (1998) USA	Structured interviews with older adults (64-91) explored participant's feelings about the area including how safe they felt, their health, as well as how often they spent in the open spaces outside. In addition social integration and feelings of community involvement were measured	Exposure to green spaces was associated with higher levels of social integration and greater sense of local community for older people.
Sullivan et al (2004) USA	Spaces in public housing development categorised into barely barren and barely green according to amount of vegetation. Spaces observed. Activity of people in spaces recorded into social and non-social	Green areas in between buildings were used by more people than barren spaces and within the green spaces more people engaged in 'social' activities (i.e. social interaction).

The role of green spaces in bringing people together has been highlighted for visitors to urban parks and woodlands in a variety of different survey and qualitative research studies. Sanesi & Chiarello's (2006) respondents to a telephone survey perceived that while the most important

function for green space was improving climatic conditions; participants also perceived that green spaces provided spaces for leisure and recreation and spaces to play with their children. This was echoed in research by Chiesura (2002) and for Macnaghten & Urry local woods were appreciated for *'the human experiences and social relationships that such spaces afford'* (Macnaghten & Urry, 2000, p170). In the research of Krenichyn (2004, 2005), being in the park provided opportunities in which to create new friendships through shared physical activities, something which was a novel experience for many women:

'(regular contact in park) ...led to more permanent affiliations founded on common interests, which was a pleasant surprise for some women who initially used the park only for solitary fitness activities'

(Krenichyn, 2004, p124)

For the women who participated in wilderness experiences, they were valued particularly for the possibilities of social interaction and the supportiveness of the group (Friedrickson & Anderson, 1999). Research conducted amongst older people using communal allotments in Northern England, found similar valuing of the possibilities of working as a group and possibilities of developing social networks, and of reducing social isolation (Milligan et al, 2004).

Social/societal benefits may not necessarily concern promoting positive interaction, but possibly preventing negative social interactions. Historically, the Victorian public parks movement were convinced of the moral and social benefits of greens spaces for an urban population (Rohde & Kendle, 1997). In comparing the aggression scores of participants who lived next to barren and next to green spaces; Kuo and Sullivan (2001a) found that levels of aggression and violence were significantly lower among individuals who had nearby nature (spaces with trees) outside their apartments than those in barren areas, and the results suggested that the relationship was mediated by mental (attention) fatigue.

Furthermore, while research has highlighted safety concerns that people may have in green spaces, particularly in more enclosed and woodland sites (Jorgensen et al 2007, Burgess et al, 1988, Burgess, 1995) which will be explored in more detail subsequently; the work of Kuo and Sullivan (2001b) is interesting as they posit that rather than providing a haven for crime, the presence of vegetation leads to *'lower levels of fear, fewer incivilities and less aggressive and violent behaviour'* (Kuo & Sullivan, 2001b, p343), as long as it preserves visibility. They proposed that this occurred through two mechanisms. Firstly through greater use of public spaces which increased surveillance, and secondly through what they call the *'mitigation of psychological precursors to violence'* (Kuo & Sullivan, 2001b), including aggression which was noted in a previous study. In fact vegetation was significantly negatively correlated with crime, and the more dense the vegetation and greenery in public space, the less reported crimes (of all types) there were in buildings nearby. While the authors suggest surveillance (because more people are in the green courtyards) and reducing psychological states which lead to criminal behaviour (such as aggression), as reasons for the relationship between vegetation and crime,

we are given no evidence of this in their research, the authors are assuming that these are the mechanisms on the basis of their previous research.

2.6 Usage and perceptions

People's preference in terms of greenery and green spaces are vitally important in order to understand if people are to use and thereby benefit from green spaces. Tyrvaïnen et al's (2007) mail questionnaire study in Finland found that favourite areas were not necessarily the most used

'relatively low attractiveness of green areas within study area is highlighted by the fact that two-thirds of respondents named a favourite place outside the area, compared to 42% that named one within it'

(Tyrvaïnen et al, 2007, p10)

One reason for favourite places being less used is that certain landmarks are not necessarily accessible. In addition, one of main requirements of green spaces, that of peace and quiet, meant that the more intensively used areas were not among favourite places. Favourite green places must be recognised as significant, as while they are not necessarily near to residential areas, they are part of the scenery and geographical identity of the area (Tyrvaïnen et al, 2007).

Contrasting to these findings, Burgess et al (1988) found that people preferred the local familiar intimate spaces, that play a part in everyday life, rather than distant large parks and landscape located a long way from their homes. It is of course possible that different findings may reflect the phrasing of questions asked and the context of discussion; for example people may abstractly prefer more beautiful spaces, but in terms of everyday, local spaces were more important to them. It also may reflect the availability of good quality local green spaces. Additionally it may be related to the potential of spaces to provide what people desire, if the desire is peace and quiet for example, the perception that a space offers a different experience to being in the city is important.

The research of Walshe suggested that people may want to feel that they are in a more rural rather than organised space, so they could feel the peace and quiet as though they were away from the city. Yet the space investigated in the study was Hampstead Heath, suggesting it does not have to be physically removed from the city, just perceived as such (Walshe, 1979). This idea is part of Kaplan's (1995) conceptualisation of how the notion of extent or coherence, which defines green spaces in terms of feelings of separation that they afford from the urban setting; is important for people to experience restoration in urban green spaces. As seen previously research also suggests that desire for separation from urbanity is important in the enjoyment of green spaces (Coles & Bussey (2000).

2.6.1 Local spaces

Coles and Bussey (2000) developed parameters of urban woodlands in terms of size, location etc, which were associated with regular usage. The predominant finding was that people

preferred to visit woodlands that were within five minutes walk of their home, and they suggested that this could be conceptualised as being within a distance of 100-400 metres from home. This can be supported by Harrison's recommendations for appropriate distance from green space being no more than 280 metres, in order to account for barriers such as busy roads (Harrison, 1995).

Within other studies, proximity was also found to be particularly important in predicting whether people visit green spaces (Ward Thompson, 2002)

'People who live in close proximity to a green space use it frequently, those who live further away do so less frequently in direct proportion to the increase in distance.'

(Van Herzele & Weidemann, 2003, p111)

Indeed for Ward-Thompson et al this underlines the importance of creating and maintaining local community woodlands because proximity is the most important factor for regular usage of woods and presumably other green spaces (Ward Thompson et al, 2005).

The size and quality of that green space also have an impact on how far people are prepared to travel.

'Each hierarchic class of green space has a different walkable catchment area which is partly determined by its size...furthermore, green spaces' catchment areas also depend on constraints for their use such as lack of maintenance, insecurity and mentality of other users.'

(Van Herzele & Weidemann, 2003, p111)

In terms of sizing criteria, Harrison (1995) as well as Bussey & Coles found that an area of two hectares was the minimum size of woodlands that people would choose to visit regularly. The shape of woods was also particularly important for those below five hectares in size. The importance of size has been recognised by Coles and Caserio and may be vital for green spaces to act as a buffer from urban environments (Coles & Caserio, 2001).

While size may be an issue; as was suggested earlier, other research has found that people value smaller, local, intimate spaces (Burgess et al, 1988, Florgard & Forsberg, 2006). The results may be different because of the phrasing of questions for example, people may not feel that they are 'visiting' smaller spaces, but rather the more informal spaces are areas they pass through. It may also reflect the type of green spaces discussed, as perhaps woodlands, for example, are different to grassed areas.

2.7 Preferences and sense of safety

This review will now examine specifically what types of green areas people prefer and how this is linked to a sense of safety, a relationship which we shall see is often complex. Ozguner and Kendle explored differences in perception between naturalistic and more gardenesque style space with visitors. While participants felt safe in both sites (which may relate to the nature of visitor survey –people were already in the spaces) the more managed gardens site was seen as safer by the majority of respondents when they compared the two (Ozguner & Kendle, 2006)

The findings are partially supported by Jorgensen et al (2002), using photo elicitation of parks. In terms of safety, the respondents preferred no enclosure (i.e. one side of pathway was open) and less vegetation under storey. However interactions between enclosure and the denseness of the under storey were apparent. Thus at the condition of 'partial enclosure' of trees, there was no difference in safety ratings for the shrub under storey, which suggests the impact of vegetation upon perceptions of safety is more complex than simply more and denser is perceived as less safe (Jorgensen et al, 2002)

Interestingly, in comparing parkland and more 'natural' woodlands; Tyrvaïnen et al found that natural green areas were seen as more important than parks; however they were more likely to be subject to conflicting views. Thus, unmanaged areas were valued highly by some participants and regarded with distaste and fear by others (Tyrvaïnen et al, 2007). It does appear that wilder and less managed spaces may be preferred by some but often provoke more extreme reactions than more controlled spaces. Thus, As Ozguner & Kendle suggest

'while some studies of landscape preference demonstrate that natural areas are highly valued and preferred there is also evidence that natural areas are scary, disgusting and uncomfortable'

(Ozguner & Kendle, 2006, p143)

This has been echoed by Burgess et al (1988) who explain that more naturalistic settings, especially woodlands, are

'among the most highly valued landscapes, in terms of personal pleasures, sense of wellbeing and the contact with nature they afford people, But they are also the setting in which many people feel anxiety either for themselves or their loved ones'

(Burgess et al, 1988, p115)

Jorgensen et al (2007) also found that favoured spaces could be those spaces in which people may feel least safe because of the simultaneously enveloping and isolating qualities of woodlands. It is essential to remember therefore that green spaces are often ambiguous in their meanings and it is not unusual for people to hold seemingly conflicting views about the same place (Jorgensen et al, 2007, Macnaghten & Urry, 2000).

2.7.1 Maintenance and context

Kuo et al (1998) obtained people's responses to different levels of tree density and grass maintenance in terms of preference and sense of safety using photo elicitation and interviews in the materially deprived housing estate in Chicago. It was found that people preferred spaces with more trees and better maintained grass, and indeed they felt that more trees created a safer environment. This differs to previous research where greenery and particularly trees have been associated with feelings of insecurity and fears over crime. Thus while in some instances trees and vegetation make people feel unsafe, in the context of poor urban public housing, presence of these (well maintained) features symbolise that area is cared for and nice area.

'Thus in urban settings with a strong 'no mans land' character (e.g. inner city outdoor spaces, abandoned city lots), the positive impacts of trees on sense of safety may far outweigh the negative; in contrast, in the more affluent urban settings typical of much previous research, the negative impacts of high tree densities might be expected to outweigh the positive.'

(Kuo et al, 1998, p55)

However when green areas are not well maintained at all and people experience littering and graffiti; this can create a cycle in which the neglected areas become further neglected as social barriers to this behaviour are eradicated (O'Brien & Tabbush, 2005). This echoes Broken Windows Theory which suggests that obvious and visible signs of degradation and decay such as 'broken windows', rubbish or graffiti mean that residents abdicate control from the area and it is identified as an area rife with crime and vandalism, thus allowing for a continuation of such deterioration, as well as vice versa (Wilson & Kelling, 1982). This has been used as an explanation by Kuo et al, as to why well maintained trees and grass may have the opposite positive effect on feelings of safety and preference (Kuo et al, 1998).

A significant finding from the mixed method study of Jorgensen et al (2007) into urban woodlands was the importance of greenery as signifying the quality of the areas and exemplifying the values of residents. The importance of the appearance of the local environment was highlighted and assumed to go beyond simple appearance and instead be to do with the quality of the neighbourhood as a whole, as well as the quality of people who live there. For example in terms of residential private gardens

'there is a sense that the physical condition of the gardens is important because it is a gauge of the quality of the community: by cultivating gardens residents show that they care about their community'

(Jorgensen et al, 2007, p280)

Many residents modified trees/shrubs in gardens and boundaries as a way to both express individuality as well as order (Jorgensen et al, 2007). This sense of representation also applied to public space where many residents valued the maintenance and care of communal vegetation as signifying human control over the environment.

2.8 Patterns of usage

Usage patterns are perhaps difficult to produce a summary of, due to different researchers looking at very different spaces and the expectation would be for research to yield different findings depending upon context. Studies do tend to suggest variation in how often people use spaces, although most people do not use them daily (Table 2.10). For example, in Ward Thompson et al's study most people visited at least once a month and many visited more frequently (Ward Thompson et al, 2004). In fact most people who visited woods visited monthly, then weekly, then daily (Ward-Thompson et al, 2005, p114). Straker and Gelder found in their study of small woodlands, the largest group visited less than once a month, with over 30%, followed by never (18.6%), once a month (15.6%), once a week and more than once a

week with around 11% each (Straker & Gelder,2002). Thus more people than in Ward Thompson's study visited less than once a month. For Dunnett et al (2002) Local Authority surveys revealed that 46% of people visited green spaces at least once a week. The differences found by various studies may reflect differences between the green spaces surveyed and possible differences between woodlands and other urban green spaces.

Table 2.10. Green space usage/perception studies

Author(s) country	Methods	Key findings
Dunnett et al (2002) UK	Wide-ranging study. Various methods include literature review, telephone survey of Local Authorities. More detailed case study of 15 Local Authorities including structured interviews with managers, telephone interviews of non or infrequent users and collation of existing survey data.	Multiple findings referring to usage, perceptions and benefits of space. 46% of people visit green space at least once a week. Informal and passive activities are principal reasons for visiting. Barriers to usage include poor facilities, other users dogs mess, safety concerns, incivilities such as litter and graffiti.
Gobster et al (2002) USA	On-site survey patterns of use, preferences, concerns about the management of parks were explored. Following this survey a follow-up survey was administered to members of ethnic minorities as too few participated initially.	Ethnic minority users of the park came from further away, more frequently drove there, used the park less often and were more likely to come in family groups or larger social groups than white people.
Greenhalgh & Wolpole (2002) UK	Household questionnaires and case studies into different aspects of green space management	Many different findings relating to how parks maintained and usage of space
Payne et al (2002). USA	Telephone survey preferences for different nature-based versus structured recreation activities in local parks; frequency of visits to a local park in the last year	Black people were more likely than whites to say they needed more park land Black people more likely to prefer organized recreation activities as well as parks designed for recreation rather than conservation. People over 50 were significantly less likely to have visited parks over past year
Rishbeth & Finney(2006) Finney & Rishbeth (2006) UK	Six refugees took part in the study and ten different green sites across Sheffield were visited. Workshop based photo-elicitation activities were carried out. Photojournals were compiled by participants after visits during the week.	Green spaces evoke nostalgia and visits were enjoyable. Refugees did not generally visit green space beyond the accompanied visits
Tinsley et al (2002) USA	Questionnaires with people of different ethnic groups about park usage and perceptions.	White people use spaces more often, black people more likely to use them with friends
Ward Thompson et al (2004, 2005)	Questionnaire and focus groups	Variety of usage of woodlands largest group use monthly. Importance of childhood visits. Small gender differences in usage of space

2.8.1 Activities and reasons for visiting

Research suggests that people go to green space to perform a variety of different activities. For example Dunnett et al's (2002) large scale research of park usage suggested people used

spaces for a variety of reasons, such as social activities, walking activities, passive and active enjoyment. Ward Thompson et al (2004) suggested walking was the most popular activity and daily users often used green space to walk dogs. For people in Lee's (2001) quantitative study the most popular activities done by residents included walking with or without dogs, having picnics, playing games and watching wildlife and scenery. Macnaghten and Urry's participants also had different bodily uses for woods. For some, risky activities such as mountain biking, rock climbing etc, were the reasons they went to the woods, while others were more concerned with simply being in contact with nature which was achieved by walking through the woods (Macnaghten & Urry, 2000). This is evidence of 'human variability': the fact that different groups will have different perceptions of and uses for woods and other green spaces in general (Frumkin, 2003).

2.8.2 Usage amongst different groups

Previous research has suggested that there may be differences amongst different groups in frequency of usage and also what they do in green spaces. Lee (2001) suggested that frequent visitors to forests and woodlands were more likely to visit alone while people who visited monthly or less were more likely to visit with friends and family. Frequent visitors were also more likely to walk to the woodlands as opposed to visiting by car (this may reflect proximity). Ward Thompson et al (2004) highlighted different user types, for example daily users who were often walking the dog and were the only groups that used woodlands alone. People who visited weekly had more positive views about green spaces in terms of feeling at home in the space and safety concerns. Monthly visitors were similar although slightly less positive. This finding is particularly important as it suggests that frequency of usage is not necessarily related to positivity about the green space.

In terms of who visited the woods on a regular basis the authors found that a significant factor was the importance of childhood experiences of woodlands and the relationship this had to visits as an adult. While it is impossible to infer causality and it may be that frequent visitors are more likely to remember childhood visits, but:

'these findings suggest that unless people visited woodlands on a daily or weekly basis in childhood (which implies fairly unconstrained access to woodlands) they are unlikely to be frequent visitors as adults.'

(Ward-Thompson et al, 2005, p134)

This is an important finding to understand as it makes it particularly important for children to be exposed to greenery and nature at a young age in order for them to appreciate it as they get older.

2.9 Demographic and personal characteristics

There is some evidence of differences in perceptions and subsequent usages across different characteristics. For example, Dunnett et al found that certain groups were more likely to be low

or non-users of space; these were people over 65, people with disabilities, members of non-European ethnic minorities and 12-19 year olds (Dunnett et al, 2002). Most researched characteristics are age, gender and ethnicity and these will briefly be explored (Table 2.10).

2.9.1 Gender

Gender differences in people's relationships to green space have been widely reported. This is in terms of perception and uses as well as supposed benefits (Curson & Kitts, 2000). Makinen and Tyrvaïnen explored more general differences between boys and girls suggesting that boys looked more at opportunities for activities in green spaces and used green spaces more than girls (Makinen & Tyrvaïnen, 2009).

Echoing research mentioned previously, in the focus groups of Macnaghten and Urry (2000) many female participants feared the woods, and would not walk alone through them, especially at night, and many of the mothers expressed concern that the woods were not safe anymore for their children to play in. Rather than necessarily reflecting the reality of situation, this reflects the gendered nature of the fear of crime, and particularly sexual assault (Pacione, 2003, Keane, 1997).

While it has been recognised that statistically open and public green spaces are the safest places; this is not to negate the fact that many women face real issues in public spaces, for example sexual harassment (Burgess, 1995). Furthermore, women were not uniform in their interpretation and assessment of green spaces as dangerous and it would be a serious error to suggest homogeneity in perceptions and usage. Many other interviewees stressed that they did not feel unsafe or limited, that companionship was valued for its own sake and that safety issues were a secondary concern (Krenichyn, 2004).

Indeed, not all studies have found gender differences in attitudes towards green spaces; Ward Thompson et al's research found that women and men's attitudes were largely similar and that women were often concerned to deny that they felt fearful of being in the woods, as with Krenichyn's research. Despite this, there is congruence with previous research in that women were unlikely to go to the woods alone (Ward-Thompson et al, 2005).

2.9.2 Age

Some research suggests that older people may have lower usage of spaces. Greenhalgh and Wolpole's (1996) research suggests that people over 60 were the most likely to say they never used parks. People over 65 were the age group most likely to be non-users or low users of space as were 12-19 year olds within the research of Dunnett et al (2002). Payne et al (2002) also found that people over 50 were less likely to use the park they investigated, however age did not contribute to preferences for the kind of recreation preferred. In contrast for Ward Thompson et al's study of local woodlands use in Scotland, age was found to not significantly impact upon frequency of usage (Ward Thompson et al, 2004).

Children are likely to have a very different relationship to open spaces than adults, as they are limited to varying degrees in movement through space and time and are often '*restricted to spaces very close to where they live*' (O'Brien, 2006, p543). Indeed within the focus groups conducted by Ward Thompson, people over 45 were found to be less fearful of the woods than those under, potentially reflecting variation in understanding and experience of woodlands, and at the same time, perhaps the lower level of freedom children and teenagers have to explore and gain such experience (Ward Thompson et al, 2005).

It is important here to note the dichotomous construction of children in relation to public spaces. Young children are here often thought to be at risk from predators and other dangers and need to be protected in public space. In contrast older teenagers are often constructed as particularly threatening through media and popular discourse, and may be seen as part of the problem when it comes to safety in green spaces (Valentine, 2004).

2.9.3 Ethnicity/country of origin

Tinsley et al (2002) found that Caucasian visitors used the park investigated significantly more often than the other groups and also had a significantly lower travel time and were more likely to walk to the park than other groups, who were more likely to drive. However it is possible that the racial differences simply represented the make up of the surrounding areas, rather than any cultural differences in parks as desirable places to visit, which the authors do acknowledge. However there did appear to be differences in not just the frequency of visits but also preferences for certain activities and aspects of the park, as well as who people visited the park with (which are not explainable by proximity). For example, African American and Caucasian people were more likely to cite natural features, such as trees and flowers as what they enjoyed in the park, than Asian or Hispanic people. White users were more likely to visit parks alone or with immediate families and African –Americans were more likely to visit with friends.

Payne et al (2002) also found differences between people of different ethnic origin. Black people were more likely than White people to say they needed more park land although the authors suggest this may reflect lack of park land available in northern areas of the city where Black people predominantly lived. In addition Black people were more likely to prefer organized recreation activities as well as parks designed for recreation rather than conservation.

In relation to the 'other' of the city, the notion of the woods and countryside as representing 'real Englishness' was evoked by some participants in Macnaghten and Urry's focus groups. The authors suggested that this unwritten idea of Englishness may be why the Asian youths were not particularly interested in the woods, preferring cities, and seeing rural areas as uncomfortable and unwelcoming for ethnic minorities. Interestingly woods and forests appeared to have different meanings in Pakistan and Kashmir (where some participants were from), and '*did not conjure up notions of bodily freedom, escape or adventure*' (Macnaghten & Urry, 2000).

p175) Rather participants conceptualised the importance of nature in a global sense, for example to help to reduce global warming, rather than as a source of individual pleasure. This was echoed by Slee et al who argued that a vital part of the identity of England is the notion of the rural idyll, with its connotations of the countryside as a 'white' and exclusionary landscape (Slee et al, 2001).

The concept of visiting parks/countryside for their own sake was also alien to some participants in Macnaghten and Urry's research; in their home countries it was an accepted practice because relatives lived there. They didn't see landscape as beautiful, and did not value walking for its own sake (although as the authors stressed many English people also shared this viewpoint). Additionally visiting parks may have been seen primarily as a social activity to be done with your family and not something to be done on your own (Macnaghten & Urry, 2000). Rishbeth and Finney (2006) explored through participatory qualitative methodology how a group of refugees within Sheffield, UK perceived and used green spaces in the city. Green spaces within the city were often seen as a novelty, and the concepts of parks and particularly city farms were a new idea to the participants. In addition, feelings of nostalgia were frequently invoked by visits to green spaces in the city with plants and flowers for example, eliciting memories of their home countries and helping to retain their national identity.

Despite benefits obtained, the researchers found there appeared to be little association between first impressions and subsequent use of green space, thus while participants appreciated parks, they often felt separated from public spaces, and apart from a couple of visits did not use green spaces. There were a number of reasons that deterred them from visiting parks and other green spaces including practical concerns (such as lack of money) and safety concerns as previously highlighted, as well as concern of engaging in inappropriate behaviour (Rishbeth & Finney, 2006).

2.10 Liveability

The concept of liveability helps to embed green spaces within their local environments and understand their potential contribution to the local area in which they are situated. There is not one agreed definition of this term (sometimes spelled 'livability') (Committee on Identifying Data Needs for Place Based Decision Making, 2002) which originated in the United States. However it appears to encapsulate a holistic concern with good quality living environments recognising that the living environment is important for the quality of life.

Liveability is thought to encapsulate many experiences and to satisfy multiple needs. It seeks to bring together economic and social as well as environmental concerns

'livability bridges many of the other concepts...it refers to the extent to which the attributes of a particular place can...satisfy residents by meeting their economic, social and cultural needs, promoting their health and well-being, and protecting natural resources and ecosystem functions'

(Committee on Identifying Data Needs for Place-Based Decision Making, 2002, p24)

The introduction of the concept of liveability into policy discourse has been to address a lack of environmental concern in previous regeneration policy (Shaw, 2004). This has been emphasised in the Living Places: Cleaner, Safer, Greener (ODPM, 2002a) which seeks to highlight the environmental element of communities and the impact this has upon general lives of people in communities.

'successful thriving and prosperous communities are characterised by streets, parks and open spaces that are clean, safe and attractive – areas that local people are proud of and want to spend their time in. Tackling failure, such as litter, graffiti, fly tipping, abandoned cars, dog fouling, the loss of play areas or footpaths, is for many people the top public service priority'
(ODPM, Ministerial Foreword, 2002a, p1)

With particular relevance for this research, liveability is thought to include the maintenance of open spaces and green areas as well as general neighbourhood clean up initiatives, measures to design out crime, renewable energy and waste management (e.g. recycling). New Deals for Communities (NDC) case studies reviewed by Shaw (2004) found that a number of factors challenged liveability including poor quality of housing, litter, graffiti, dog fouling, abandoned and burnt out cars, lack of open and green spaces and poor quality of environmental service provision. Such poor liveability was said to impact on how people feel and behave including a low level of satisfaction with their area (Shaw, 2004). It thus emphasises both the potential impact of green spaces upon people's lives and quality of life in particular but also the embedded nature of green spaces within a local environment. Green spaces in particular have been argued to contribute to the liveability of an area, its attractiveness as a place to live and also to be part of creating a place in which to invest and to work and visit (CABE, 2004, 2005).

2.11 Research questions

The literature review has highlighted many different areas of research that are relevant to the development and furthering of understanding of the experiences of green spaces in the city centre. While many areas have been studied, there is a lack of research within city centre environments as opposed simply to an urban environment and also research that tries to build up a detailed understanding of the localised experiences of green space within a specific city centre context. Thus this research took an exploratory approach to examine the experience of city centre residents in relation to usage of green space, perceptions of green space and benefits gained from green space and situated this within the context of living in the city centre rather than as an isolated experience.

The research questions were deliberately broad and exploratory: they also evolved during the conduct of the research and did not reflect solely an original interpretation of the literature. Rather, some questions developed as the results of the survey came in and during the process of the conduct of the interviews where further issues for exploration came to the fore.

The mixed method approach reflects a desire to examine green spaces for city centre residents from different perspectives, drawing upon the different strengths of qualitative and quantitative approaches to improve understanding of how people experience city centre living and green

space in particular. Subject areas were covered by both methods, however the individual questions were generally addressed by one or other method, reflecting the different strengths that each could bring, although some questions were addressed by both methods.

Research questions related to city centre living

- How do people feel about living in the city centre?
- What are the particular issues that preoccupy residents?
- What are the positive and negative aspects of living in the city centre?
- How do residents vary in their feelings towards the city centre?

Research questions related to usage of green space

- What are general patterns of usage of local green space? In terms of frequency, length of stay, activities done in spaces.
- What factors are associated with usage? Including personal characteristics associated with, activities and reasons for visit.
- How do people understand their usage of space, how does it fit in with everyday life?

Research questions related to benefits of local green space

- What benefits do people perceive green space provide for themselves and others?
- How is usage of green space related to perceptions of benefits?
- How important are green spaces to residents in the city centre?

Research questions related to perceptions of local green space

- How do people feel about the quality and quantity of green space in and around the city centre?
- How do people construct the green spaces within their narratives?
- How do perceptions of green space relate to frequency of usage?
- How do people feel about safety and other users in green spaces?

The next part of the thesis will explore the theoretical and then practical issues related to the methodology employed to address these questions.



PART II Methodology



Chapter 3 Mixed Methods

This chapter outlines the general methodological approach of mixed methods. Section 3.1 highlights the theoretical assumptions behind this approach including controversies over the legitimacy of combining methods. 3.2 explains the rationale behind adopting a mixed methodology and the particular type of mixed methods employed. 3.3 outlines how this approach was manifested in the research, including the analysis and presentation of results.

3.1 Theory of mixed methods

'Mixed methods research is a type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.'

(Burke et al, 2000, p123)

Over recent years there has been increasing interest in the combining of quantitative and qualitative research, which is referred to generally as 'mixed method(s) research' (other phrases are employed frequently such as 'multiple methods' and 'mixed strategy'). There is concern to create consistency of definitions and currently the term 'mixed methods' is used, to indicate the use of quantitative and qualitative within the same research study (Teddlie & Tashakkori, 2003, Hanson et al, 2005). The increasing interest in Mixed Methods is reflected in the development of two new journals over the past couple of years and the proliferation of research using and theoretical discussion of mixed methods (O'Cathain, 2007, 2009a).

Mixed methods research is not new, and early social research often employed mixed approaches although it was not necessarily called such (Burke et al, 2007, O'Cathain, 2007). Increasing polarisation occurred during the course of the 20th century between researchers who espoused quantitative and qualitative approaches, such that, doing one or the other was seen as an essential part of certain disciplines and often considered the right and proper way of conducting research within that discipline. Thus while

'social and psychological research quickly became primarily quantitative (e.g. as influenced by logical positivism and a reinvigorated scientism). Partially in reaction, many qualitative currents developed throughout the century, coalescing into a qualitative research paradigm in the 1980's and 1990's.'

(Burke et al, 2007, p125)

Qualitative and quantitative approaches to research are often therefore, seen to be resulting from differing epistemological positions, which are incompatible. At a basic level, quantitative research has been influenced strongly by the natural science model and particularly positivist research, where the role of the researcher is minimised as far as possible in order to obtain objectivity. In contrast, qualitative research stems from a position that rejects the idea that natural sciences can be used to aid understanding of human beings, but rather focuses upon an

interpretative epistemology which emphasises context and meaning and acknowledges the role of the researcher as integral to the research process (Brannen, 1992). As Bryman explains

'the concern in quantitative research about causality, measurement, generalizability etc can be traced back to its natural science routes; the concern in qualitative research for the point of view of the individuals being studied, the detailed elucidation of context, the sensitivity to process can be attributed to its epistemological roots.'

(Bryman, 1992, p59)

Bryman stresses that these approaches to research do not have to be rooted in their epistemological beginnings. He operates a useful distinction between researchers who view mixed methods as possible and those that do not. The Epistemological position sees quantitative and qualitative as grounded in incompatible epistemological positions; therefore mixing methods is not possible. The Technical version in contrast gives greater emphasis to strengths of data collection and analysis provided by quantitative and qualitative approaches and sees it possible to combine them:

'there is a recognition that quantitative and qualitative research are each connected with distinctive epistemological and ontological assumptions but the connections are not viewed as fixed and ineluctable.'

(Bryman, 1992, p446)

In this sense, researchers take a pragmatic approach which emphasises the practical real world application of mixed methods, where the research problem is the focus rather than underlying philosophical concerns, which along with many researchers is the approach that has partly been taken in this research (Bryman, 1992, May, 2007, O'Cathain, 2009, Hammersley, 1992).

While pragmatism was of primary importance to this thesis, solely approaching research in a pragmatic way arguably enables researchers to avoid difficult questions addressing their role in the research process. My methodological position is aligned with that of Seale's 'middle way' and Hammersley's subtle realism (Hammersley, 1992b, Seale, 1999). This suggests that while pure objectivity is not possible as all research is shaped by researchers' concerns to a greater or lesser degree, whether this is acknowledged or not; it nevertheless does not take a constructionist approach traditionally aligned with much qualitative theory that there is no such thing as an objective reality. This means that research does capture reality at different levels and from different perspectives. This approach means acknowledging my role in the research process at all stages, although of course it involves recognising that this role is different for the different methods.

This approach was followed by O'Cathain in her mixed method thesis which involved acknowledging her role in the different stages of the research process (O'Cathain, 2009b), rather than acknowledging this role for the qualitative segment and not for the quantitative segment as would be expected in a pragmatic approach which tends to follow the conventions of different research traditions. The next section highlights the value of integration in writing the results, which itself would be very difficult if following these pragmatic conventions of writing from first and third person according to which method was being described.

The importance of making one's position clear is particularly important in the developing area of mixed methods, where often this is not the case (Bryman, 1992, O'Cathain, 2009). The dilemmas encountered when conducting mixed methods should not be underestimated, and O'Cathain (2009) highlights the potential pitfalls for researchers combining methods which may be directed at diverse audiences whose expectations of research outcomes are very different. The expectations of fellow researchers and general research communities for which your research may be relevant may conflict in their conventions. Thus being able to justify the research approach in a clear way (even if it may depart from convention) was vital.

The element of pragmatism which is most attractive is the fact that it is research question led. I would follow May, in asserting that researchers should combine quantitative and qualitative when practical and where research questions lead you in that direction (May, 2007), which involves acknowledging the advantages that can be provided from combining methods that have different strengths and weaknesses (Devine & Heath, 1997). Indeed it should be acknowledged that sticking solely to one method simply because it is what should be done or because it is easier can have a negative affect upon research. Mason asserts therefore that methodological approaches also influence our epistemology as well as vice versa:

'adhering to only one method can lead to conservatism of thought, of repeatedly asking the same questions while failing to pose innovative questions that would illuminate the social world in new way'

(Mason, 2002, p297)

3.2 Particular approach

Previous mixed methods research has suggested a variety of reasons for combining qualitative and quantitative in the same study, although sometimes these are not made clear by researchers. The specific justification for using quantitative and qualitative will be explored in the following two chapters; however the reasons for mixing them are explored here. O'Cathain et al (2007) report in their review of and interviews with researchers who had conducted mixed methods studies that only a third of researchers gave justification for why they had engaged in such research. The principal justification for using a combined approach was to enhance comprehensiveness of the study, in terms of addressing a broad range of questions and allowing for understanding of the complexity of phenomenon under study (O'Cathain et al, 2007). Using two different methods enables an understanding at different levels of reality, with for example the questionnaire providing breadth and qualitative providing depth (Sosu et al, 2008). This also reflects the fact that all social phenomena are multifaceted –thus they require a variety of approaches in order to explore their complexity. Echoing the views of Sosu et al, combining a large scale survey with small-scale interviews allows for exploration of general and specific *'compared to the single method this would help expand the scope of our understanding'* (Sosu et al, 2008, p172).

In discussions of mixed methods and their appropriateness there may be a tendency to over-emphasise the differences between qualitative and quantitative; which is often used as evidence of their incompatibility (Hammersley, 1992). However their differences are part of the attraction for using two distinct methods. This reflects the prime reasons for conducting mixed methods in this study. The quantitative element of the questionnaire allows for a broader understanding of features of green spaces, for example patterns of usage, general perceptions and of course the relationships between these amongst a broader sample. The interviews in contrast, which have concern for context and the minutiae of peoples lives, allow for an exploration of peoples' feelings around green spaces, the specifics of why they feel they use particular spaces and how people construct them within their narratives.

It is thus not simply about breadth and depth therefore but that quantitative and qualitative methods are helpful in exploring different elements of a similar topic. Conducting a mixed method study also enables the investigation of the interactions between these, for example examining the association between perceptions and usage of spaces using the questionnaire, which can then be related to how people discuss how they feel about spaces and their usage in the interviews. Furthermore, the fact that quantitative survey is primarily driven by my concerns as a researcher while the qualitative allows a greater understanding of the participants' views is also an important reason for including both in this study (Bryman, 1992).

This is not necessarily Triangulation, which is often used as a catch all term for all mixed methods research (Mason, 2006). However in strictly methodological sense Triangulation involves exploring the same phenomenon using different approaches in order to verify/corroborate results. In this sense different methods study the same objective phenomenon and thus are argued to increase validity of study (Brannen, 1992). Triangulation and corroboration have been argued to be narrow reasons to employ mixed methods and can be restrictive – for example in terms of corroboration it entails looking for common instances and asking the same questions.

Other approaches to mixed methods include embellishment, where for example, interviews are used to flesh out the findings of a questionnaire (which again are arguably rather restrictive) and complementary approaches which suggest different roles for the different methods which are used for answering different questions; although related to the same topic (Mason, 2006, Brannen, 1992). As Brannen suggest the aim for mixed methods:

'findings from the different elements of a mixed method study are best combined like pieces of a jigsaw puzzle with the aim of gaining a more complex understanding of the social world, rather than as a means of validating each other'

(Brannen, 1992, p297)

In this study the quantitative and qualitative methods will generally ask different questions in line with a more complementary approach; although making an effort at integration, which is sometimes not done with more complementary approaches that seek to keep separate the different findings (O'Cathain, 2009). This approach leans more towards 'mixing methods to

ask distinctive but intersecting questions' (Mason, 2006), where there is concern to keep separate ways of seeing, for example, understanding that interviews and questionnaires will be producing different kinds of data (and perhaps contradictory), but nevertheless examining how these relate rather than generally keeping them separate. Of course in some elements it will be the case that separate interpretation is more appropriate, as certain topics will be explored solely by one method. In other respects where there is considerable overlap in the questions, elements of corroboration will be highlighted in the results chapters. This reflects a flexible approach to how one perceives the value of mixed methods, which can have more than one role. Arguably to do otherwise risks employing the dogmatic approach of those who suggest mixed methods are incompatible.

3.3 Research implementation

Implementation refers to the order in which data is collected (Hanson et al, 2005)

Sequential QUAN -> QUAL sampling (Teddlie & Yu, 2007) Allows for a sub-sample to be drawn from larger sample
QUANTITATIVE Allows us to reach a large number of people and observe patterns of behaviour and opinions and allow for a degree of generalisability.
QUALITATIVE Allows for complexities –see issues to greater degree from participants points of view, explore feelings and perceptions in greater detail.

Figure 3.1. Research approach

A sequential method of conducting the research was decided upon as opposed to a concurrent approach where research using two methods is conducted at the same time. This sequential approach involved a quantitative survey followed by qualitative interviews of a sub-sample from the questionnaire. This is a common form of mixed method sampling, followed by many researchers (Hancock et al, 1999, Teddlie & Yu (2007). As Kemper et al explain (2003)

'in sequential mixed model studies, information from the first sample (typically derived from a probability sampling procedure) is often required to draw the second sample (typically derived from a purposive sampling procedure)'

(Kemper et al, 2003, p284)

Being the sole researcher conducting this research project meant it was largely impossible to administer two methods concurrently; however this was not the prime motivation for the decision. The decision was due to the advantages of obtaining the data from the questionnaire which could then lead to the sampling of a sub-sample for the interviews. The results from the questionnaire as well as feeding into sampling decisions and providing a basic sampling frame, also fed into the development of interview questions. Obtaining broad understanding of the subject from the questionnaire and identifying areas of interest and possible relationships; meant that the interviews could be used to explore similar issues in a qualitative way. Furthermore

clarification and elaboration of certain issues from the questionnaire could also be sought. Additionally interviews explored elements that had not been considered in the questionnaire, drawing upon the strengths of interviews that allow for more participant-led understanding and in-depth detail. These strengths will be explored further in chapter 5.

There are of course practical issues with regard to the conduct of sequential methodologies, most notably the issue of time. A questionnaire conducted for a mixed method study arguably takes the same amount of time as one for a single method study and yet interviews are also very time-consuming. Thus, any overrun on the questionnaire eats into the time allotted to the interviews, which was certainly an issue in this study.

3.3.1 Analysis

While the individual analyses will be described in more detail in the relevant sections for the methods, a mixed method approach entails considerations beyond individual analysis of separate datasets. A sequential approach to administration of the research does not automatically imply the same approach to analysis. Thus while the conduct of research and analysis was largely conducted sequentially and separately (there are mixed method designs that will combine analysis for example by quantifying interview data, however this was not felt appropriate due to the different strengths of the methods); in order for the questionnaire to feed into the interviews and to generate sample, the analysis was flexible. Therefore while the questionnaire was analysed initially, followed by the conduct and analysis of interviews, on a number of points findings from the interviews prompted a return to the questionnaire data to conduct new analyses.

Thus while the data sets were analysed separately there was considerable awareness of relationships between them and the further insights that can be explained from exploring these relationships. The extent to which the analysis is interactive is related to the particular topic – not all the topics explored in this study were investigated to the same degree by both methods (this is inline with the complementary/integrated approach). For example during the course of the research it became apparent that the qualitative is of more relevance to benefits of space where people could discuss their experiences and what is perceived to be beneficial. In comparison the questionnaire was more useful in building up a picture of how people generally used spaces, while the qualitative information in this respect, can enhance by providing an understanding of the different way that people use space and why. This therefore, involves a complex process of separate analysis as well as related interpretation, which involves going back and forth between the data sets and examining them separately.

3.3.2 Issue of contradictions

Research that is mixed method should not necessarily be assumed to yield similar results. Indeed this certainly should not be the expectation, as researchers have found that results can

indeed be contradictory (Moffatt et al, 2006), and in fact it has been argued that one of the aims of mixed methodologies should be to allow for the expression of contradictory views (Brannen, 1992). As Devine and Heath argue, it is easy to

'select snippets from qualitative interviews to 'flesh out' the data from quantitative research. A more important issue arises, however, when qualitative material does not confirm or even challenges quantitative findings (and vice versa).'

(Devine & Heath, 1997, p12)

There is generally little attention in the research literature to the consequences, if qualitative and quantitative research does not come to the same conclusions. Devine and Heath pose a number of important questions about how to deal with this: *'Should one or other data source be conveniently discarded? How does a researcher try to reconcile contradictory findings? What criteria should be applied?'* (Devine & Heath, 1997, p14) Differences between the data sets are important –it does not necessarily mean that one is wrong; although of course this may be a possibility, for example, statistical analysis could have been conducted incorrectly. Indeed inconsistency can provide information that might not have been gained otherwise and may lead to new theoretical developments. (Teddlie & Tashakkori, 2008, Mason, 2006) Results were therefore not discarded if they did not conveniently corroborate one another, but rather this was highlighted and possible reasons for this investigated.

3.3.3 Presentation of results

Moffat et al (2006) assert the value of combining methods at the presentation stage, a feature which is often avoided by researchers, who tend to publish work in different journals. This often represents the separation of methodologies in wider academia. As Green and Preston have explained:

'University faculties and departments are often 'orientated' towards a particular quantitative or qualitative research specialism, journals have a quantitative or qualitative focus, and policy makers and business favour particular types of Research.'

(Green & Preston, 2005, p168)

Many doctoral theses that use a combination of quantitative and qualitative actually operate a degree of segregation in the writing up as well as other stages of the research. The usual convention for doctoral theses is where results are reported separately (for example one chapter detailing qualitative results and one detailing quantitative results) and then are brought together in the discussion (O'Cathain, 2009b).

This thesis reports the results of the study in an integrated fashion with subject led presentation and discussion. This highlights the findings from the individual methods, the relationship between the two data sets in relation to the subject matter (Sandelowski, 2003). This involves indicating any occasions where information from both data sets was used, or when, for example, the interviews prompted a new analysis of the questionnaire. This has the advantage of providing a fuller understanding of the subject under study for the reader because of the potential possibilities provided by this integration which would not necessarily be

acknowledged as related if they were examined separately. Indeed the non-linear nature of analysis, interpretation and writing, which is perhaps more widely expected in qualitative research generally, can then be recognised in a mixed methods study rather than being marginalized. Furthermore the very act of writing up the results together may prompt new analysis.

Choosing to present the data in an integrated fashion, as O’Cathain reported is not an easy option. It requires considerable thought beyond that required if they are presented separately (O’Cathain, 2009b). There are both different questions and findings for the different methods, so some subject areas will have more qualitative data and others more quantitative. In addition there is the possibility that results will not concur, so each subject will have a different relationship between the qualitative and quantitative results. The importance of being open about the non-linear nature of analysis as well as breaking with conventions in reporting mixed methods has been highlighted and is important for the acceptance of the approach within the general research community (O’Cathain, 2009b).

3.4 Conclusion

This section has highlighted the general mixed methods approach including the principal reasons for employing this approach. It outlined how the mixed method approach was operationalized during the different stages of research. The following chapter examines the specific reasons for and issues concerned with developing and conducting the questionnaire.

Chapter 4 Quantitative Method

As suggested in the previous chapter, this mixed method thesis employed both qualitative and quantitative elements. This chapter explores the quantitative questionnaire. Section 4.1 explains why a self-administered household questionnaire was chosen. 4.2 highlights the general issues of questionnaire construction, while 4.3 explores the structure of the questionnaire and why particular questions have been included. Section 4.4 explains how piloting was conducted and includes an explanation of how questions /layout were altered on the basis of the pilot questionnaire. 4.5 highlights the sampling procedure and 4.6 the practical issues that arose when sending the questionnaire. 4.7 explains the response and return rate. 4.8 indicates important coding issues and 4.9 highlights how ethical issues were addressed.

4.1 Self-administered household questionnaire

In order to investigate the research questions, the quantitative method of data collection was a **self-administered household questionnaire**. This section firstly explains the general reasons for employing this strategy (see Appendix 1 for questionnaire).

4.1.1 Household questionnaire

While much research into open green spaces has been conducted through site surveys, in which people are interviewed or given a questionnaire to complete in a particular space which is the focus of investigation; it is my belief that household surveys were preferable in this research for a number of reasons:

- Site surveys may be biased in favour of those who prefer those areas in which studies take place as opposed to others, whereas it is more likely that people with different preferences would be reached through household surveys. Conducting an on-site survey means that overly positive views of the green space under question could be obtained.
- Household questionnaires can reach people who *do not use* the green spaces under investigation and indeed any green spaces, and we may therefore be able to identify particular excluded groups (Coles & Caserio, 2001, p24). Differences between non-user and user groups, in terms of preferences, uses and perceived benefits can also be explored.

4.1.2 Self-administered Questionnaire

A *self-administered* questionnaire was chosen over interviewer-administered questionnaires primarily due to time constraints and financial considerations. The average interviewer assisted interviews cost ten times the amount of an average self-administered questionnaire (de Vaus, 1993), although because I would have been conducting them, there would be no need to pay

interviewers. Travel costs would have been an issue if I had conducted many structured interviews. In contrast the cost of a questionnaire only increases by a smaller amount for each additional one (cost of postage and printing).

Being the sole researcher made time considerations very pertinent, and for self-completion questionnaires, once they were sent off, my time could be occupied elsewhere, compared to the time it would have taken to conduct large numbers of interviews. There was also the issue of participant's time. It was likely that many people would be at work during the day, limiting the time that interviews could be conducted to the evening and weekends. Self-completion questionnaires in contrast could be completed at a convenient time. In my opinion these reasons outweighed the potentially lower response rate from self-administered questionnaires. The desire to conduct qualitative interviews also meant it was preferable to undertake questionnaires for the quantitative element.

Thus, while I am aware that self-completion questionnaires often have significantly lower response rates than interviewer administered, on average 20-40% for the first mailing (Nachmias & Nachmias, 1981); there were a number of measures taken that might have increased the rate.

1) The objectives of the survey, being about people's local environment [should] have related to peoples everyday lives, rather than being something which was abstract and irrelevant. This may have made them more likely to respond.

2) The inclusion of a self addressed envelope, and incentive of being entered into a prize draw to win £100, both of which have been found to increase response rates (Moser & Kalton, 1971) although this was unlikely to have had the same impact as if offering an voucher as incentive for everyone.

3) Effort was made to make the questionnaire as professional in its appearance and questions as possible, as well as easy to understand and not too time-consuming. In addition effort was made to ensure the letter was clear and concise in instructions (Nachmias & Nachmias, 1981).

4.1.3 Response bias

The principal disadvantage of mail questionnaires is the poor response rate and response bias. Response bias occurs when one subgroup of target population is more or less likely to respond than another section. The factors that influence non-response vary from one survey to another (Oppenheim, 1986, p35) although there are certain factors that lead to lower response. Mail surveys are argued to achieve poor response rates from people with low education, people who do not like to write, or have problems reading and also those who do not have an interest in the topic (Czaja & Blair, 2005). While interest in the topic is arguably likely to affect participation in all types of research not simply mail questionnaires, the principal concern was lack of participation by people with lower education and perhaps lower reading level. However, after consideration of the advantages and disadvantages of conducting a mixed-method study with

qualitative interviews as well as the more structured questionnaire, time constraints made it impossible for one person to do all structured as well as qualitative interviews.

4.2 Questionnaire Construction

4.2.1 General Concerns

In constructing the questionnaire I was aware of various issues to consider when designing a good quality questionnaire. It was important to keep the language of questions simple, avoid double-barrelled questions and to avoid leading questions which could bias responses (De-vaus, 1993). Negative questions were avoided as far as possible, particularly when respondents were asked to indicate agreement; as it could have been confusing to know whether to tick 'agree' or 'disagree' in response to a negatively worded item. However there has been an inclusion of some negative items within the green space perception questions as it may avoid people automatically ticking the same response for all questions.

It was also important when discussing time frames to use an appropriate frame of reference (Office of Educational Assessment, 2006), for example instead of asking 'Do you visit green space regularly?', it was important to state what is meant by 'regularly' and divide it into different time scales, e.g. weekly, daily etc. This was to ensure there was no difference in interpretation as some people may interpret regularly as weekly, others as daily. The definition of 'green space' and 'area' for people also eliminated the problem of differential interpretation for these issues. 'Other' options were also provided on many categorical questions, in case the list provided by myself was not exhaustive (Office of Educational Assessment, 2006).

Ensuring that the questions were well spaced and that the font was easy to read were felt to be essential in order to maximise the response rate. Coloured paper was used for the questionnaire to make it stand out from ordinary letters that might be received. Letters were given the University of Sheffield and Architectural Studies School header in order to lend an official feel to the questionnaire, the university stamp was also on the envelope so that it could not be misinterpreted as junk mail.

4.2.2 Defining local area

In order to focus participants' minds and to obtain a degree of comparability it was decided to define 'local area' in the questionnaire. Not all research asking people to consider their own neighbourhood does this (e.g. Weich et al, 2001). It was possible that people would have radically different ideas about what counts as their local area. For some it might be the immediate area around their house, others may consider it to stretch to miles away. In either case, it was unlikely to correspond with objective measurement. Therefore, the advantage of specifying area within the study enabled a certain degree of consistency. Table 4.1 considers previous researcher's conceptualisations of local area or neighbourhood.

There are two principal divisions between how researchers conceive a neighbourhood. One is defining neighbourhood by a geographical feature or administrative boundary which is objective, the other approach is to ask people to consider their area in relation to a specific distance or time (e.g. certain distance from home). Administrative boundaries were not thought appropriate for the questionnaire as people were unlikely to be aware of them and secondly even if people are made aware, it would differ for individuals (unless the area from which the sample is drawn is the relevant administrative area). This would have resulted in having to outline the differing boundaries in the questionnaire which would be particularly time consuming. Administrative boundaries are also not geographically equivalent, for example, some are very small while others are large and they are not necessarily related to people's experiences of area.

For the questionnaire local area was therefore operationalized as being the area within *fifteen minutes walk* of a respondent's home (Miller, 1997, Balram & Dragicevic, 2005). It was felt that this would be easier for respondents to conceptualise rather than specifying a distance of, for example, one mile radius, which has been used in other research studies. Previous research has used distance between ten minute to twenty minute to conceptualise local area (see Table 4.1) Fifteen minutes also reflected the recommendations of the European Environment Agency (EEA) that all people should have access to green space within a fifteen minutes walk (roughly 900 metres) (Barbosa et al (2007).

Thus, if people are recommended to have green space within fifteen minutes walk of their home, and fifteen minutes walk is an appropriate cut off point for conceptualising the neighbourhood/local area, it seemed opportune to use this for defining the local area within the questionnaire. It can be used for enabling people to relate their experiences of using green space within that area as well as their perceptions of the quality and quantity of that green space. There was a consideration of the smaller distance requirements for green space access; English Nature, for example, recommends that people living in towns and cities should have accessible natural green space within 300m from home (Harrison et al, 1995). Despite this, it was felt that these limits were too restrictive to conceptualise the local area, particularly when the research focus was green spaces and considering the nature of the city centre, it was possible (indeed likely) that people would not have any green space within that distance.

Table 4.1. Examples of defining local area/neighbourhood from neighbourhood and health research

Authors	Local area measures
Bowling et al (2006)	15 or 20 minute drive from home
Cummins et al (2005)	Postcode sectors
Guite et al (2006)	15-20 minute walk or 5-10 minute drive
Kirtland et al (2003)	0.5 mile radius/10 minute walk from home
Lee et al (2005)	800 mile radius around public housing development
McGinn et al (2007)	20 minute walk or 1 mile from home
Ross & Mirowsky (2001)	Census tracts
Sooman & McIntyre (1995)	½ mile radius of home
Soth & Crowder (1997)	Census tract
Tienda(1991)	Census tract

4.2.3 Defining green space

It was decided to leave the definition of green spaces provided in the questionnaire as open as possible following Burgess et al (1988) in order for people to be able to describe their usage of many different types of green space. Burgess et al found that people in their research identified many different areas of green, as green space beyond conventional definitions of parks and woodlands. This was echoed by Ward Thompson et al (2005) in their research where areas of woodlands were categorised and defined by participants rather than being limited to areas officially designated by forestry professionals. This meant that diverse areas of space were recognised as woodlands, from strips along rivers or field boundaries to large commercial plantations (Ward Thompson et al, 2005). The definition therefore provided in the questionnaire was

'any sort of green area, ranging from a small patch of grass or trees to a big park or woodlands. Therefore when answering the questions please feel free to consider all green areas and not just the well known or popular spaces'

(Questionnaire, appendix 1)

This allowed participants to consider a wide range of green areas. People were also asked to name the spaces that they visited that were not provided as options, so it was possible to form an idea of any spaces which would not be conventionally seen as a green space.

4.3 Questionnaire questions

To enhance validity many questions were either taken as they were or with slight modifications from widely administered surveys with previously validated questions. Many of the neighbourhood questions were taken in essence with few changes from versions of the Survey of English Housing. Satisfaction questions were obtained from the British Household Panel Survey (BHPS), and some demographic questions from CENSUS. This also allowed for comparability across different samples. This would enable any future research to compare each individual with their geographical area of residence (e.g. output areas).

The questionnaire underwent considerable changes throughout the planning stage, as new ideas emerged from the reading of the literature, and also as a result of informal and formal pilots. This section will present the questions as they were in the final administration of the questionnaire. Where significant issues were considered about a question or its answer options then that has been highlighted. The inclusion of questions for building up a picture of peoples' experiences in the city centre has been taken as given and therefore not highlighted in individual questions. The specific reasons for including a question, for example, its relationship with other variables are highlighted.

4.3.1 Section A: Where you Live

Section A contained questions relating to peoples' housing and the local area in which they lived. These questions asked about peoples' objective circumstances not perceptions. This was

chosen as a starting point in order that it was applicable to everyone (i.e. not everyone will use green spaces so if this was the first question it may deter people as it would not be relevant to them). They were also quite easy questions to answer and not too personal as other demographic questions may be perceived to be. These questions were included in the questionnaire to build up a picture of the residents in the sample and also to see if any of these characteristics related to green space experiences. These questions were all closed questions with categorical answers

A1) What type of accommodation do you live in? For example, whether they lived in a flat or house.

A2) Which of the following is your accommodation? This referred to housing tenure: *owner-occupied (including buying house with mortgage), council/local authority/housing association and private landlord rental, other tenure*. Tenure has been reported to be one of the major indicators of neighbourhood satisfaction. Tenure also helps to explain usage of green space according to a previous study (Giles-Corti et al, 2002).

A3) How long have you lived in your present accommodation? This was included as an indicator of how well known the area was and possibly the extent of attachment to the area.

A4) How many other people live in your household? This was included as it is an indicator of potential users of green space.

A5) How many children under 18 in the house? This may influence the importance of green space, what it was used for and how they were used.

A6) How old are they?

A7) Do you have access to the following at your home?(outside space) This may influence the desire for other green spaces as well as usage, and may provide necessary green space so that the participant does not have to go elsewhere.

4.3.2 Section B: Feelings about your area

As with the previous section, interest in finding out how people view their neighbourhood and how this related to their neighbourhood satisfaction was important. These variables have been reported in the Survey of English Housing to be related to neighbourhood satisfaction in a positive way (Parkes et al, 2002) and it is interesting to see if this is the case for Sheffield city centre. In addition perceptions of the area have been reported to influence the likelihood of seeking out open space for activity and walking (Giles-Corti & Donovan, 2002).

Aspects of neighbourhood

The following variables were included because research suggests that the relationship between neighbourhood satisfaction and green space may be mediated by them, as well as the fact that previous research indicates their relationship to certain aspects of green space, suggesting their importance in their own right.

Safety, appearance and social interaction were assessed by questions derived from the Survey of English Housing, on a 5 point scale (cited from Parkes et al, 2002) (with slight variations in wording), as well as one dichotomous yes/no question.

Safety in area

Vegetation has been shown to influence perceptions of safety. However these perceptions appear to be not simply about safety while in green space but also the safety of the general area. For Kuo et al, vegetation in poor, deprived urban environment became a visible indicator of a cared for area, and of 'civilised' behaviour, which meant that people rated it as safer (Kuo et al, 1998). Additionally, for people in Jorgensen et al's study, the extent of management of vegetation in the local area influenced perceptions of safety in general area (Jorgensen et al, 2007).

Perception of levels of crime in the area has also been linked to whether people seek out a public green space (Giles-Corti & Donovan, 2005), and the amount of vegetation within a neighbourhood has also been linked to lower levels of crime and aggression (Kuo & Sullivan, 2001). Perception of safety was therefore assessed by 2 questions:

B1) How safe do you feel in the area where you live? (*very safe –very unsafe*)

B4) Do you think crime a problem in your area? (*serious problem –not a problem*)

Appearance of area

As indicated previously, the appearance of an area is related to a sense of safety and green space and should be included for that reason, as well as its reported strong influence upon neighbourhood satisfaction (Parkes et al, 2005).

B2) How would you rate the general appearance of your area? (*5 point scale of very bad – very good*)

Social integration in area

Previous studies have suggested that nature plays a strong role in the promotion of the social interaction and integration. Studies of housing estates with high levels of deprivation in Chicago have suggested that courtyards with trees, grass, etc are far more likely to encourage people to both go outside and then interact with one another than barren open spaces (Sullivan et al, 2004). This has also been echoed in numerous studies including those conducted with qualitative methods where people have expressed the importance that natural environments such as woods, play in allowing people to communicate with one another, and the development of relationships (MacNaghten & Urry, 2000).

The direct relationship was assessed in Section D, which asked why people used green spaces, and whether they visited with someone; however it was interesting to see how green space related to perceptions of the sociality of the area overall. For example. Kaplan

incorporates sense of community and how friendly people are into her measure of neighbourhood satisfaction, which was significantly associated with views of nature (grassy areas, trees) from the home (Kaplan, 2001). Notions of friendliness and community spirit have also been reported to be significantly associated with neighbourhood satisfaction (Parkes et al, 2002), which as stated has previously been associated with green space. In addition, the inclusion of this variable allows us to understand people's priorities, for example it is possible that people in certain areas see social integration as less important, and thereby even if they have negative feelings towards the extent of social relationships, they will still be satisfied with their neighbourhood (Parkes et al, 2002).

Social interaction will be assessed by 2 Questions:

B3) How friendly do you think people are within your area? (*Very friendly –not at all friendly*)

B5) Do you think there is community spirit in your area? (*yes /no/don't know*)

Neighbourhood satisfaction

Neighbourhood satisfaction has been used in previous studies of green space and wellbeing suggesting that views of vegetation as well as the amount of greenery could influence such satisfaction (Kaplan, 2001, Ellis et al, 2006). It is an important measure because it gives us an indication of how residents perceive the overall quality of their environment, and has also been said to have a role in life satisfaction and hence overall subjective wellbeing (Parkes et al, 2002).

It also enables us to gain understanding of the role of green spaces within neighbourhoods. For example, it is possible that people may perceive green areas in a negative light and also have negative perceptions of the neighbourhood as a whole. Alternatively, it is possible that they perceive that green space is limited but because it is not a priority then this does not influence their satisfaction with neighbourhood.

In many previous studies the concept of neighbourhood satisfaction has been assessed using multi-item scales incorporating the different factors or attributes of the neighbourhood which are deemed to add up to neighbourhood satisfaction. This was the case in the research by Kaplan (2001) which explored how the view from a person's window influenced their neighbourhood satisfaction as well as psychological wellbeing.

I would suggest that there are problems with this; firstly these factors are not necessarily seen to be the same by different researchers, which limits any comparability between studies. Secondly, participants are likely to have different ideas of what adds up to neighbourhood satisfaction and while all will be assessed in the same way; for example some people may feel that crime is more important, while others may feel that the appearance of buildings is more important. This makes it difficult to say that these sum up neighbourhood satisfaction.

As Lu explains

'Since a reacting individual is likely to attach different levels of importance to various attributes of ... neighbourhood and their weights are not likely to be well understood, it becomes difficult if not impossible to construct externally reliable measures of life satisfaction. An overall measure based on a single question avoids this complication.'

(Lu, 1999, p270)

It was therefore decided to pose a single question and allow participants to decide what contributes to their assessment of satisfaction of their neighbourhood. The variables that are included in multi item measures of neighbourhood satisfaction such as those used by Kaplan (2001) and Parkes (2002) were analysed as separate variables.

B6) On the whole, how satisfied are you with the area in which you live?

Neighbourhood Satisfaction was assessed by a single item ordinal scale with five categories: *very satisfied, fairly satisfied, neither satisfied nor dissatisfied, slightly dissatisfied, very dissatisfied.*

4.3.3 Section C: Use of Green Spaces

These questions were descriptive; and therefore enabled understanding of the ways and extent that green spaces were used. A number of different aspects of usage of space were explored in this section. Most of the questions referred to local green spaces so an idea of how people used the spaces close to their homes rather than those they might visit further away was obtained. The terms 'typical visit' and 'on average' were used in order to ensure people considered their general patterns of usage as opposed to an extreme week - for example, if they were asked to consider the last month it could be that they were on holiday, or ill, and thus an accurate representation of their general usage would not be produced.

C1) On average, how often do you visit or walk through green spaces in your local area?

Following Tyrvaïnen (2006) et al, residents were asked to specify how often they visited local green spaces, ranging from daily –never, in order to distinguish between regular and occasional users and also people who never used their local green space. This was differentiated from how often they used non-local green spaces within the city and further afield (C11), to gauge the importance of local green spaces. The questions highlighted both visiting and walking through the space. If the question had referred only to 'visited' it is possible that if someone just walked through green spaces on the way to work, they may not see that as visiting, and this may result in an underestimation of usage.

C2) Which green spaces do you visit? Participants were provided with a list of green spaces that were roughly within their local area with space provided for the option of naming others. The green spaces were the same for all questionnaires and thus it was possible that people did not perceive that certain green spaces were in their local area, however it would be impossible to tailor the questionnaire to each address. People were asked to describe the approximate location and the attributes of any 'other' green spaces. This was because they may not know the name of the space and it may then be possible to identify it from its attributes.

It was felt appropriate to divide questions pertaining to the purpose of a visit into two. This enabled one question to refer to specific physical activities and another question to consider the mental and spiritual benefits. This was felt to be desirable so people were not overloaded with options and possibly consider certain activities conducted more important than others. For example, for people who use parks to walk, if there was one question asking about what they did in green spaces, or why they visited the space, people might just look for the option 'walk' and ignore the other less obvious reasons. It was hoped that having the two questions might therefore get people to focus more explicitly on mental and spiritual benefits (although a further option was included that allowed people to say they have no other reason for visiting).

C3) On a typical visit what activities are you likely to do in green spaces? (Options included: *sit and relax, walk, (for pleasure, for transport, and to walk the dog), cycle, skateboard, jogging/running, other sports, supervise/play with children, observe wildlife/greenery, meet/socialise with people, picnic, organised activities, other activities*).

As many options as possible were included and were influenced by a wide range of literature on the subject. Activities included things such as supervise/play with children which people may not think of as activities, but form an important element in understanding how green space was used. Walking for transport and walking for pleasure were likely to have different consequences and it is useful to know these distinctions, for example, the time of a visit, who accompanied them, how they felt about green spaces. This distinction was employed by Giles-Corti et al (2002) in studies of physical exercise in Australia – which is important because some people may not consider walking from place to place as an activity. Walking the dog was also listed separately as it is a strong indicator of daily visiting (Ward Thompson et al, 2004).

C4) Apart from the activities in the previous question, are there any other reasons why you visit these green spaces? (Answers include: *To Relax/reduce stress, for peace and quiet, for fresh air, to escape from city, to escape from home, to be in nature, for beauty, for inspiration*). These benefits referred to the more restorative nature of green spaces and mental benefits generally and were principally adapted from research by Chiesura (2004) which explored the usage of a city centre park in Amsterdam.

The next set of questions were included to build up a picture of specific usages of space. Because of the limited space allowed in a questionnaire it is necessary to get as much useful detail from each question as possible. Initially and in the pilot participants were asked questions such as, how long they stayed, who they visited with etc, about *all spaces*. However following the analysis it was considered that this was too general. From the responses it would not be possible to know what space was being referred to and indeed people might be making some sort of average calculation so it was felt this generalised view may not reflect accurately the usage of any green space. People were therefore asked to describe usage of the space that they used most often which at least allowed us to understand which spaces are the most used and how they are used.

C5) What is the green space (in your local area) that you use most often?

C6) On average, how often do you visit or walk through this green space?

C7) On a typical visit how do you get from home to this green space? (*On foot, cycle, car, bus, other*) While green spaces were specified within fifteen minutes walk –this did not mean that people would necessarily access them only on foot, although research has suggested that people will mainly visit green spaces on foot (Coles & Bussey, 2001).

C8) How long does it usually take you to get from your home to the green spaces? (*Up to 5 mins, 6-10 mins, 11-15 mins, more than 15 mins*). Research suggested that people preferred to visit green space within 5 minutes walk of their home (Coles & Bussey, 2001)

C9) Who would you usually go with? (*Alone, friends, partner/spouse, child(ren), other(please specify)*) This question was included in order to see whether using green space was more of a solitary or social activity, and therefore played a role in social interaction.

C10) On a typical visit, how long would you stay? (*just pass through, less than 30 minutes, 30 minutes-1hr, 1-2 hrs, 2-3hrs, over 3 hrs*) The first two options were chosen to distinguish between people who *visit* and those who just pass through, for example you could visit for less than 30 minutes or you could simply walk through on your way to somewhere else. Due to the size of the local green spaces it was felt unlikely that people would stay all day, although an option was provided for more than 3 hours.

9) On average, how often do you visit or walk through green spaces in Sheffield that are NOT within your local area? People may not use local green space but this does not mean that they don't use any green spaces. Usage of local green space could be compared with non-local green space.

10) What are other green spaces in Sheffield that you visit? This included a list of the well known green spaces in Sheffield (major parks and woods) as well as the Peak District. As with the local green space question there was space to add in others not listed and to state location and attributes.

4.3.4 Section D: Feelings about green spaces in local area

Perceptions of green spaces were important to explore in their own right and also because of possible relationships with usage. Perceptions have been suggested previously to be a strong influence on decisions to use certain spaces (Giles-Corti & Donovan, 2002). Investigating perceptions also allows for understanding of how important green spaces are to people in their neighbourhood and the possible benefits that could be gained by visiting.

For example, it is possible that people in the city centre may perceive that there is an adequate supply of green space, even though it is physically limited because it is not something they were concerned about. In addition responses could show how green space perceptions related to general perceptions of their neighbourhood –for example it may be that people are dissatisfied

with green spaces but satisfied with their neighbourhood suggesting that green spaces were not playing a significant role in the appraisal of their local area.

The satisfaction items were derived from previously validated work by Bonaiuto et al (2003) (with some minor modifications –see below). These items had formed a component of a very detailed neighbourhood satisfaction survey that related to overall neighbourhood satisfaction. In my opinion it provided a broad understanding of how people perceived the quality (or lack thereof) of green space within their areas, by consideration of the following ten items:

- There is no park where children can play
- There are green areas for relaxing
- There are enough green areas
- Green areas are in good condition
- Going to a park means travelling to another part of the city
- There is at least a garden/park where people can meet
- Many green areas are disappearing
- The green areas are well-equipped
- The green areas are too small
- Most green areas are closed to the public

These items were assessed using 5 point Likert scales of ‘totally agree’, to ‘totally disagree’. This incorporates both positive and negative aspects of green space and a broad range of perceptive judgements over green space. Some modifications were undertaken. The last item was felt to be irrelevant as most green spaces are not closed to the public in the UK (with the exception of private gardens of course, which people are unlikely to perceive as a green area in that sense). The statement ‘There is at least a garden/park where people can meet’ appears to be addressing two different points, the availability of green areas, as well as presuming that people will use it for social interaction. It was therefore, felt more appropriate to address social interaction in the second set of statements. Whereas, the amount of green space I considered was addressed in the two items referring to amount and size of green space.

As can be seen, the wording of these items was changed slightly to make it explicit that they were referring to the local area. In addition some of the particular items were substituted for other ones, bearing in mind other literature which cites particular factors which may influence usage. Thus one item that was added referred to perceived safety of green spaces within the local areas. ‘The green areas are safe’, was again assessed by a 5 point Likert scale of ‘totally agree’ to ‘totally disagree.’

The total questions in order and with the correct phrasing, was as follows:

D1)

- a) There are enough green spaces in my area.**
- b) The green spaces are in good condition in my area.**
- c) The green spaces are well-equipped in my area.**

d) The green spaces in my area are suitable for children to play in.

e) The green spaces are too small in my area.

f) The green spaces are safe in my area.

g) The green spaces are attractive in my area.

The inclusion of the safety of the green space item is important for a number of reasons; most notably, because previous research has suggested the importance of its relationship to the use of green space (Macnaghten & Urry, 2000, Burgess, 1995, Jorgensen et al, 2006). As well as the fact that the effects of vegetation upon safety are dependent upon context, in terms of individual characteristics, area characteristics, or indeed it may for example depend on the nature of that vegetation (Ozguner & Kendle, 2006).

D2) A second set of statements were developed following consideration of previous research. These focused more on the relationship of green spaces to the local area and benefits they may bring, rather than the qualities of the local particular green spaces.

a) Local green spaces are important for appearance of the area.

b) I prefer to use green spaces in other areas of Sheffield.

c) Local green spaces attracted me to the area.

d) Local green space is important for people to meet.

e) Local green spaces are important for the health of people in the area

These statements may be seen to reflect different aspects of the importance people place on green spaces to their area. For example, 'I prefer to use green spaces in other areas of Sheffield' may suggest that green spaces in the local area are in someway lacking. 'Local green spaces attracted me to area' is perhaps the strongest statement in relation to green spaces in a local area and it was not necessarily anticipated that it would receive high scores, due to the fact that there is not much green space in the city centre. The other three items referred to particular benefits that green spaces may be said to bring to the area, and it was interesting to see whether people perceived that they were important for community health, for social interaction as well as the appearance of the area.

D3) On the whole, how satisfied are you with green space in local area?

This was asked to gauge peoples' overall appraisal of the green spaces in their local area in a form that could easily be correlated with other items.

4.3.5 Section E: Physical activity

Walking is a physical activity that is currently the focus of environmental and policy initiatives in public health (Leslie et al, 2007), and green spaces are increasingly being recognised as important resources that enable communities to engage in exercise, particularly moderate exercise such as walking or cycling.

As Giles-Corti et al indicate

'Well designed public open space (POS) that encourages physical activity is a community asset that could potentially contribute to health of local residents.'

(Giles-Corti et al, 2005, p169)

In Section C people were asked the reasons for visiting green spaces. This meant that we would be able to link with questions which provided more detail of physical activity levels, in order to see the value of green space as an enabler of recommended levels of activity. Recommended levels of physical activity are 30 minutes, 5 times per week of moderate exercise which includes activities such as walking, cycling, gardening (Chief Medical Officer, 2004).

There were separate questions which referred to physical activity and walking due to the fact that people may not class walking as physical activity. Of course there is an awareness of who uses green space and its usage from the previous questions, but these questions give a more concrete idea about the extent of usage and the role of green space (if any) in achieving exercise recommendations, and offers a comparison to other spaces.

E1) How often do you walk for 30 minutes or more? (*5+ times per week, 2-4 times per week, once a week, few times per month, monthly or less, never*)

E2) Where do you usually do this? (*Streets/pavements, green space in Sheffield, countryside, other*) This was to establish the predominant place people walked. Foremost was likely to be streets and pavements; however it was interesting to observe whether green space did play a role in achieving guidelines for recommended walking, or whether it was not used that intensively.

E3) What other forms of physical activity do you do? (*None, jogging/running, cycling, swimming/water sports, football/basketball/cricket/other team sports, racquet sports, gym workout, other*)

E4) How often do you do these activities for 30 minutes or more? It was likely that anyone doing any of these activities would do them for 30 minutes or more, however it helps gain a comparability between walking and other exercises in terms of time spent. It also allowed us to see the extent to which it contributed to recommended levels of exercise.

E5) Where do you usually do these? (*home, specialised indoor facilities, specialised outdoor facilities, streets/pavements, green space in Sheffield, countryside, other*) This question investigated whether green spaces provided an area for these activities or if people were more likely to use organised facilities.

4.3.6 Section F: About You (Demographic /Personal Characteristics)

The demographic and personal characteristics questions were included in order to understand who answered the questionnaire and also to see how these characteristics related to other answers. These questions were placed near the end of the questionnaire in order to reduce the possibility that people would be deterred by the more sensitive questions.

- 1) **How old are you?**
- 2) **What gender are you?**
- 3) **What is your marital status?**
- 4) **Were you born in the UK?**
- 5) **What is your ethnic group?**
- 6) **What religion are you?**
- 7) **What qualifications do you have?**
- 8) **What is your employment status?**
- 9) **What is your annual household income?**
- 10) **Do you have regular access (as driver or passenger) to a car/other motor vehicle**
- 11) **Over the past twelve months would you say that your health has been: good, fairly good, not good?**
- 12) **Do you have any long-term illness, health problem or disability which limits your daily activities**
- 13) **If yes is use of green space affected?**

These questions all had exclusive categorical answers (people could only tick one box). A number of the questions were taken from the census and adapted to simplify them (for example the health question, religion, ethnic group question). Choosing a question which has been used successfully before was considered preferable, if possible, to facilitate future comparability.

4.3.7 Section G

This final section contained questions obtained from BHPS asking people to rate on the scale from 1(not satisfied at all) to 7(completely satisfied). It was decided to include these questions in order to have a measure of overall subjective wellbeing (swb).

Measures included:

G1) Health, household income, house/flat, husband/wife/partner, job, social life, amount of leisure time, way spend leisure time

G2) life overall

Subjective wellbeing can be used to understand the importance of variables for peoples' life, for example, green space to peoples' life. Thus, rather than asking people directly it can be observed how the variable of interest compares to other factors (Welsh, 2006). The life satisfaction approach is also valuable because it does not generate desirability effects –i.e. people do not say what they may think the researcher wants them to say (Welsh, 2006).

It is important to make clear the distinction of subjective wellbeing from psychological wellbeing. Subjective wellbeing is concerned with either a person's emotional responses to a situation (affect) or a more global cognitive assessment of their situation (i.e. life satisfaction) in contrast psychological wellbeing is concerned with whether someone is psychologically well, and the criteria for this have been determined by researchers (the terms subjective wellbeing and

psychological wellbeing are often used interchangeably but this results in considerable confusion).

Life satisfaction and happiness have been argued to be the components of subjective wellbeing. Life satisfaction is arguably a more appropriate measure to employ in a survey. Happiness is suggested to be less stable and fluctuates depending upon circumstances to a greater extent than does life satisfaction (Keyes et al, 2002), although there is considerable disagreement over the constitution of happiness and satisfaction (see e.g. Ryan & Deci, 2001, Hird, 2003).

4. 4 Piloting

The questionnaire development was tested at two stages, with an informal pilot of friends and associates who completed the questionnaire while commenting upon any issues that arose. This was followed by a formal pilot, which replicated the conditions of the main questionnaire mailing (with the exception that vouchers were provided for all returnees) and was sent to a sample in Sheffield city centre. Both stages of the pilot highlighted issues that warranted consideration. Two qualitative interviews were also conducted after the pilot questionnaires and although these were analysed with the other interviews, initial analysis of these also prompted consideration of changes to some aspects of the questionnaire.

4.4.1 Informal questionnaire pilot

The first stage was a test of the ease to which the questionnaire could be completed as well as length of time for completion and understanding of questions. This pilot was conducted by the administering of questionnaire to 12 people in total and asking them to fill in the questionnaire, but at the same time speaking aloud any comments they had about the questions as they filled them in. The pilot revealed that most of the questions were easily understood, however there were a few questions that respondents reported were ambiguous and could be subject to misinterpretation.

Principal points raised concerned directions (e.g. 'if none go to question 5'), for example, instructions that omitted directions to go to a particular section. These points were easily rectified, and best noticed by people who did not have familiarity with the questionnaire.

4.4.2 Formal Pilot

The second pilot was sent to participants of a previous research study conducted by the School of Architecture investigating city centre living and noise. 28 questionnaires were sent out, 2 were returned unopened as people were no longer resident at the address. 13 questionnaires were returned completed. The questionnaires were generally well-completed with few missing answers and no systematic pattern to the missing answers

4.4.3 Changes implemented following formal pilot/interviews

Initially the questionnaire had contained a question (A8) asking people how they used the outside space indicated in question A7. It was decided to remove question A8 because it became apparent in the pilot that people were ticking more than one space in answer to the previous question A7. It would then have become complicated to ascertain which outside green space people were referring to when asked how often they used it. Consideration was given to asking people to refer to the one used most often or to refer to the one that was highest up on the answer options. However, it was felt that the latter could still be a bit confusing, and the former option, would mean that we would not necessarily ascertain the most important. For example, people may use a balcony most often but this may not be the most important to them. It was felt it would therefore be preferable to remove this question as would not really contribute to the analysis.

Question A7 **‘Do you have access to any of the following at your home?’** was also changed. *(Originally the answer options were; Private garden, patio or yard, roof terrace or balcony, none)*. It was decided to also add in the option of ‘shared garden’ in addition to the private garden. This was because people were ticking ‘private garden’ with reference to communal gardens that are within developments and this did not fit my definition of a private garden. This came to light during discussion of gardens in the two pilot interviews, when it became apparent that such gardens were shared with other residents, rather than being a private domestic space. This was a significant example of the way different stages of research can feed into another. The new answer options were therefore: *Private garden (for the use of your household only), shared garden (for the use of more than one household), patio or yard, roof terrace or balcony, none of the above*

The most significant change which took place after the pilot was in Section C detailing green space usage. A decision had to be made between seeking very specific but perhaps too restricted answers and having a broad picture which tells us little about details. The general style of questioning was prioritised in the pilot questionnaire; however this was changed for the principal questionnaire.

The questions relating to how people get to green space, who people go with etc, were changed to refer only to one specific green space, the one that was used most often. This was done in order to be able to map particular usage patterns of specific spaces. If these questions were answered in reference to all spaces then only general data would be obtained rather than details on specific spaces. While there were questions referring to the reasons for using green space and how often these were used that applied to all spaces, to establish a general picture, in order to perhaps have more policy relevance it was felt it would be helpful to be more specific in subsequent questions.

The general focus was retained for the questions referring to the reasons for visiting green space, as people might have considered it was too artificial to comment about one space or feel restricted, as they may visit different green spaces for different reasons and only being asked to comment about the most frequented one could have resulted in omission of the reasons for visiting others.

4.5 Drawing the sample

There were two stages to obtaining the sample:

- 1) Defining the study area
- 2) Finding the addresses/people within that area

4.5.1 Study area

This was the area viewed as the city centre for the purpose of sampling. In many forms of research administrative boundaries are used (e.g. wards). However administrative boundaries do not have any particular relationship to how people experience neighbourhood. In contrast the A61 inner ring road is a strong demarcating feature which separates the city centre from the rest of Sheffield. It was decided to define the city centre by the ring road to the west, south and east and the river Don to the north.

While it would have been possible to use roads as the boundaries throughout, as there was considerable development being undertaken at the north edge of the ring road at the time, and with certain roads closed, and new ones opening (and these were not marked on current maps) it was felt preferable to use the river as a marker of the boundary between the city centre and the rest of Sheffield. In addition the river was a very clear boundary, which naturally delimits areas and can only be crossed at a small number of points. For pragmatic reasons it was also easily identifiable on maps, and also easy for people not necessarily familiar with the road names in Sheffield to understand. In addition there are areas of the 'city centre' which fall immediately outside of the ring road, but are enclosed within the junction between this and another main road in to the city centre. It was requested by the council that this area (Victoria Quays) be included. This was desirable because of the continuation of the character of an area -Victoria Quays was comprised of a conversion of older building into flats and new developments, which have similar characteristic to those on the other side of the ring road. There is of course the issue of the increasing development of the city. Since the sample was developed there have been new flat developments opened and new ones being built, which causes 'city centre living' to spread beyond this boundary, however these were not included as part of the sampling.

Using data from Mastermap which displays the road and other features, commands were executed in ArcGIS which highlighted the roads and then using the edit tool a new polygon (shape) was drawn which follows the line of the ring road and along the river.

4.5.2 Obtaining sample

Once the study area was created the sample was obtained using the electoral register. This was felt to be the best option due to the prohibitive price of address databases. Research involves weighing up practical and methodological considerations. So while address databases are more complete, due to financial restrictions it was deemed preferable to use the electoral register. The electoral register was obtained for two wards, the Central ward and the Walkley ward. While most of the city centre as defined above was covered by the Central Ward, a small part at the western edge of the area fell into the Walkley ward which necessitated obtaining this as well.

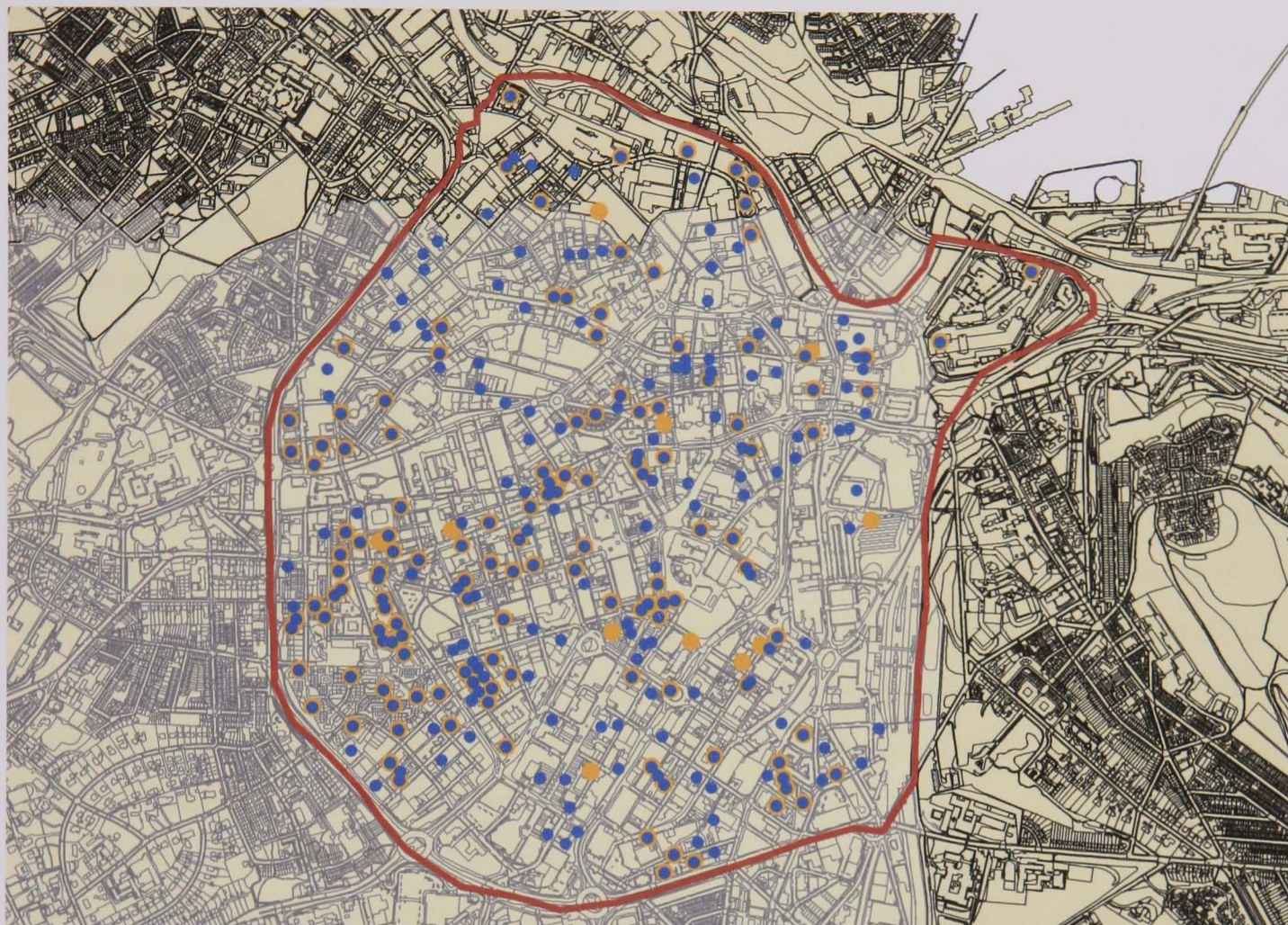
The electoral register file was joined to a postcode file which could then be opened in ArcGis. This layer of the map was then placed onto the study area. In order to isolate these postcodes and create a separate layer (or file to be used in other programmes) a geographical command had to be issued that defined the postcodes in relation to the study area. These varied significantly in what they included. Postcodes that are ‘completely within’ the area were selected using ArcGIS –this was chosen to provide the highest probability that the postcodes would not fall outside the ring road. It also provided a higher probability that the addresses to which the postcodes corresponded were within or on the ring road.

Postcode points represented the first address in that postal area to which delivery was made on the postman’s route, and were therefore designed for the convenience of the post office. This meant that it was feasible that even if the postcode point was within the ring road, some of the addresses that it represented might have overlapped the boundary. This happens because points simply summarise addresses and will happen regardless of which selection technique is employed for the postcodes.

A number of maps were created which showed interesting features about the sample postcodes. Firstly it brought to my attention the changing nature of postcode points and what they represented. With ongoing development taking place in Sheffield, new residential addresses are being created all the time, and postcode points are changing. This became apparent when the maps of residential postcodes from 2005, and the most up to date postcodes from March 2007 were compared.

Selecting the postcodes was also complicated by the fact that having drawn the line around the ring road and up to the river, it appeared that some postcodes within the ring road had been excluded. On closer inspection, however, it was found that these postcodes were not inside the ring road, they were either just on it or just outside it, and as the ‘completely within’ command was selected, to minimise the chance of having large numbers of addresses outside the study area, it was felt that this was acceptable. As can be seen in Figure 4.1 the study area is indicated as the area inside the red line. The domestic postcodes indicated in blue and electoral register sampled postcodes indicated in orange. This suggests that the majority of domestic postcode

areas were represented by the electoral register sample. The few postcodes that were not domestic (orange with no blue) were in fact businesses where people lived and so were included in the sample.



Key

- Electoral register postcode points
- Residential postcode points
- Outline of study area

Figure 4.1. Map of study area. Base map Copyright Ordnance Survey 2007

The addresses of 1945 people were obtained from the amalgamation of the study postcodes and the electoral register file. The decision was made to send the questionnaires to everyone in the study area on the electoral register rather than draw a sample from this population. This decision was made for a number of reasons. The original proposal was to send to around 400 people and if the pilot was representative expect to get around 50% back. If everyone completing questionnaires received a £5 voucher, this would have become expensive, and was similar to the cost of sending out 2000 questionnaires without the voucher. It also obviated the need to stratify the sample in any way to ensure that all areas were represented. This would have been an issue, as the maps showed considerable concentration of delivery points around

particular areas and developments. Response rate was expected to be lower as there was no automatic incentive.

4.6 Process of sending and receiving the questionnaire

The questionnaire was sent out with a letter explaining the general purpose of the survey and the importance of participating. People were informed about the prize draw and a reply sheet was included which people could tick if they wanted to be included in the prize draw. It included a section asking people if they wanted to participate in interviews and requested contact details if they did. The letter was printed on University of Sheffield headed paper in order to give it a formal feel, the University of Sheffield stamp was also on the envelope which was hoped to give the impression of importance and not junk mail, so people would not automatically discard it.

The questionnaire was sent out at the end of January 2008. In the first batch 1940 questionnaires were sent out (week commencing 21 January). This was the original sample of 1945 minus 5 people who had been sent the questionnaire as part of the pilot phase of the research. While it would not have been a problem to have included them again in the research, it was felt that they would not reply due to the lack of the same incentive the second time around. It was also felt that they would also be unlikely to want to fill in the same questionnaire (with slight modifications) for a second time.

A number of questionnaires (around 275) were returned to sender. The vast majority indicated that the person to whom the envelope had initially been addressed was no longer living at the address. It was decided to resend but this time addressed to 'the occupier' as it was reasoned that the people had gone to the effort to mark these envelopes and therefore may be willing to fill in the questionnaire if it was sent out again. It was decided not to send out another 5 because instead of 'addresses unknown' or 'gone away' the envelopes were marked as having inaccessible addresses and in one case that the person was deceased. While the latter could have been resent as 'the occupier' it was felt that this was unduly insensitive. This second batch of 270, were sent out in February 2008.

Section 4.7 Response rate and questionnaire completion

4.7.1 Response Rate

There was a total response of 223 questionnaires. 194 people responded to questionnaires where envelopes were personally addressed. This is equal to exactly 10 % of the first mailing (194 out of 1940). 25 people responded from the 270 'the occupier' questionnaires which were initially sent back to the university as 'return to sender'. As these were sent to the duplicate addresses then the response rate is $(194 + 25)/1940 = 11.23\%$. There are 4 people that we do not know whether they responded to the occupier or to the named questionnaire, either because the id number had been removed and/or reply slip was not included. This is a low response rate and

while it had been expected to be quite low (circa 30%) 11% is particularly low and perhaps reflects the transitory nature of the city centre population. 115 people indicated they wanted to be interviewed out of 223 (52%)

4.7.2 Completion of the questionnaire

The questionnaire was well completed in general. Most questionnaires did not have any missing answers. There were a couple of questionnaires with many missing answers, where it appeared people had missed pages out rather than refused to fill in certain sections. A number of people (n=7) ticked the ‘do not want to say’ option for the income question, less for the religion questions. 1 person refused to put in their ethnicity. A further comment was made about not putting in civil partnership as an option. While perhaps this had not been given enough consideration, the questionnaire was devised before civil partnership had become legalised and therefore it was not an option at the time of development although it was legal when the questionnaires were printed. It is also possible that anyone who was in a civil partnership would have considered themselves as married and ticked that option.

4.8 Coding issues

4.8.1 Incomplete/contradictory and missing data

While there were few missing and contradictory answers they presented coding issues for the researcher. For contradictory answers it is impossible to know the right answer. One example of contradiction was when one person, when asked how often they visited wider green space put *never*, yet when asked which green spaces were visited ticked, *Peak District*. There are three possible reasons for this, firstly, misreading the question or secondly thinking that the Peak District was not in Sheffield so was not considered an answer to the first question, however when they saw it as an option on the second page ticked that they visited the Peak District, thirdly they did not consider the Peak District to be a green area –perhaps countryside was viewed differently. In cases such as these, people would be excluded from the analysis of ‘frequency of visit to non-local green space.’

On most occasions missing data was recorded as ‘missing’, however in some cases it made sense to record a different code. For example, some people indicated in the marital status question that they have no spouse or partner. However, satisfaction with relationship question was left blank rather than ticking ‘doesn’t apply to me’. This was then coded as ‘doesn’t apply to me’ as this was factually correct, and makes their answer easier to understand. On another occasion the person wrote that the green space they used most often was Gell Street Park. However they did not write this in answer to the earlier question asking which green spaces they visited in their local area. This was then coded as using Gell Street Park as again it was factually correct.

4.8.2 General coding of questionnaire

The coding framework involved assigning numerical codes to the answer options. These varied depending upon the type of variable. For ordinal variables the coding was from 1- n with 1 generally indicating displeasure or lowest and the higher number indicating positive, or higher amount. For dichotomous variables and for answer options where people were allowed to tick more than one, for example, reasons for visiting green space, each reason was coded as yes or no, with yes =1, no=2. For other nominal variables each category was assigned a number which was essentially meaningless, usually representing the order the options appeared on the questionnaire. Life satisfaction domains were not recoded, just entered as a numeral from 1-7.

4.8.3 Recoding issues

Some analyses of the questionnaire required the recoding of variables due to small numbers in certain categories. Many variables were dichotomised, for example, for different analysis, particularly when doing chi square tests as there were insufficient people in the categories. The cut off points for these recoded dichotomous variables are clearly indicated in the relevant results chapters and often analysis was conducted with more than one recode, for example, ‘visit green space never/visit green space’ and ‘visit green space 5+ times per week/visit less’.

For some variables a recode had to be conducted before any analysis, for example, the question asking how many children were in the house, was dichotomised to whether people had children in the house, because the small numbers in individual categories would mean that analysis would not be meaningful.

4.9. Ethical issues in questionnaire

Ethical approval was gained for the study from the University Ethics Committee. Informed consent was presumed to have been given when people returned the questionnaire. People were informed that questionnaires would be kept confidential and that their answers would not be associated with their names. The letters sent out with the questionnaire informed respondents of the possible outputs of research, including publishing of results. The questionnaire was made anonymous through the use of the ID number on the corner of the questionnaire, which was used as the identifier within the subsequent analysis. The questionnaires were stored in a secure filing cabinet.

4.10 Conclusion

This chapter has highlighted the development and the administration of the questionnaire including both theoretical and practical issues. The next chapter will explore the interviews.

Chapter 5 Qualitative Method

This chapter explores in more detail the qualitative interviews, including both theoretical reasons for undertaking the interviews, how they were conducted and the practical issues that were considered. Section 5.1 considers the justification for using qualitative interviews; 5.2 discusses the approach to interviewing that was employed. 5.3 describes ethical and practical considerations. 5.4 focuses on analysis of the interviews. 5.5 discusses the analysis process. 5.6 explains the sampling decisions undertaken, while 5.7 provides a brief appraisal of the conduct of the interviews.

5.1 Qualitative interviewing rationale

5.1.1 Why interviewing?

Qualitative interviewing was chosen to provide a different approach to the experiences of green space in the city centre of residents to complement the questionnaire. As Hakim argues:

'qualitative research is concerned with individuals own accounts of their attitudes, motivations and behaviour. It offers richly descriptive reports of individuals' perceptions, attitudes, beliefs, views and feelings, the meanings and interpretations given to events and things'

(Hakim, 1997, p26)

The interviews therefore had three particular important rationales:

- Detail
- Emotions/feelings
- Participant perspectives

The interviews were conducted to add descriptive, in depth detail of similar areas of investigation to the questionnaire. However, while questions were asked of similar areas, this does not imply that I was actively looking only for corroboration or framing questions in a way in which similarities were sought, rather the interviews were approached separately and any contradictions and differences were actively sought out. Secondly, interviews were used to explore people's feelings and emotions about spaces which are not so amenable to quantitative exploration. There is not enough sensitivity and information within quantitative rating scales to explore, for example, people's concerns and feelings about green spaces or other areas of interest. Thirdly, qualitative interviews allow for the exploration of subjects of interest to the interviewee rather than simply the concerns of myself as the researcher, and for the framing of discussion in the participant's words. This entails allowing for greater variation between the interviewees rather than uniformly asking the same questions of each interviewee, as each area of interest is explored.

The focus on the participant's viewpoint is particularly important in exploratory research, as there may be important features that had not been considered. Furthermore, the interviews

allowed for the exploration of people's contradictory and complex views which would never be captured by quantitative instruments that give a general overview. As Banister has argued:

'your aim in using semi-structured interviews may be to explore precisely those areas where your interviewee perceived gaps, contradictions and difficulties. Hence another advantage of using a less structured approach is that you can tailor your questions to the position and comments of your interviewee, and you are not bound by the forced of standardization and replicability to soldier on through your interview schedule irrespective of how appropriate it is for your interviewee'

(Banister et al, 1994, p51)

5.2 Approach to interviewing

This section will discuss the decisions made with regard to theoretical and practical issues involved in qualitative interviewing. Rather than there being strict protocols governing the conduct of interviews which need to be followed, I approached the conduct of the interview in the same light as Kvale and Brinkmann. They conceive interviewing as a craft, it is something that you learn as you go along; there is no quick fix and no hard and fast rules about how to conduct qualitative interviews (Kvale & Brinkmann, 2009). However, there were important decisions to be made about the conduct of the interview and the design of the interview guide as well as analysis.

5.2.1 Theoretical approach

As was highlighted in chapter 3, my approach to research is one of subtle realism (Hammerlsey, 1992) which Seale (1999) calls the 'middle way'. This recognises that interviews do not simply reflect reality but in some sense are constructing versions of it. They represent interviewees' accounts of the world. This is not the same as a 'full blown' constructionist approach which suggests there is no such thing as reality for us to understand, but also is not the same as saying that an interview is simply and straightforwardly discovering knowledge. Rather, it recognises the role of the researcher in producing knowledge in a specific situation as well as the specific situation impacting upon the account that will be co-produced within the interview. As Holstein & Gubrium suggest:

'the goal is to show how interview responses are produced in the interactions between interviewer and respondent, without losing sight of the meanings produced or circumstances that condition the meaning-making process. The analytic objective is not merely to describe the situated production of talk, but to show how what is being said relates to the experiences and lives being studied'

(Holstein & Gubrium, 1997, p127)

As well as this subtle realist approach it also incorporated elements of grounded theory. This reflects an exploratory approach which seeks to be reasonably open minded about what one is hoping to explore in the conduct of the interviews (perhaps contrasting with the questionnaire which has a more researcher defined focus). This approach is

'one that is inductively derived from the study of the phenomenon it represents[...] data collection, analysis and theory stand in reciprocal relationship with each other. One does not begin with theory, then prove it. Rather one begins with an area of study and what is relevant to that area is allowed to emerge'

(Strauss and Corbin, 1990, p23)

I would not classify my research as fulfilling totally the demands of grounded theory, partly because I did not follow to the letter, strictures about the conduct and analysis of research and particularly because I did not employ theoretical sampling. It was felt that to do this might have restricted the direction of what was intended to be an exploratory study and secondly due to the questionnaire existing as a sampling frame. Sampling decisions will be explored more in Section 5.6.

5.2.2 Semi-structured interview

The qualitative interview is usually categorised as being either unstructured or semi-structured. My approach fell more within a semi-structured approach, that is, with reasonably specific topics combined with being very flexible in the order and follow-up questions. This was in order to be able to ensure that certain research questions were addressed which may not be the case if unstructured interviews were conducted; although research questions were also subject to addition and change as new data emerged.

An interview topic guide (Appendix 4) was used to structure the interview and ensure the coverage of certain topics. It also created a certain amount of order in topic areas; however the nature of interviews means that this order was often not adhered to. Participants were allowed space to pursue topics that interested them because when participants talk about something not covered in the guide it is obviously important to them (Bryman, 2004). The development of the guide was partly influenced by results from the questionnaire, which highlighted issues that were important, however there were also pre-existing concerns that I wanted to explore in the interviews, such as, how people feel about spaces within the city centre, how they construct narratives around the usage of green space, why they are used and what encourages and what detracts from their usage.

5.2.3 Interview guide detail/process of interviewing

What were deemed to be easier questions were generally asked first as they allowed the interviewee to relax and get comfortable in the interview situation, without having to think about challenging questions. Questions that may have required more thought were put at the end of the guide. Thus, generally the broader questions about living in the city centre were at the beginning, while questions about how people perceived benefits of green space were towards the end, as were questions requiring people to define green space. Effort was made to try and use language that was easily comprehensible and relevant (rather than academic language) and just as in the questionnaire, to not ask leading questions. Concerted effort was made to avoid leading questions when asking prompting or probing questions, although sometimes this seemed unavoidable, particularly when an interviewee was not very talkative and I was trying to get them to open up or elaborate.

It was generally thought appropriate to ask about specific features of interest as well as to ask about the general. Asking about specific incidents or experiences helps to increase vividness of description (Rubin & Rubin, 2001). For example, questions referred to specific green areas such as Devonshire Green or the Peace Gardens, as well as green areas generally. This was in order to get understanding of differences as well as similarities between spaces rather than spaces generally. It was also felt that this helped to understand an interviewee's point of view, for example, asking about 'green spaces' may not mean anything to a person, compared to asking about Devonshire Green. This focus upon participants' understandings of phenomena is what Kvale & Brinkmann (2009) call 'deliberate naiveté' –meaning being open to participants' own categories and understandings rather than imposing your own at the outset. As Bryman suggests

'the emphasis must be on how the interviewee frames and understands issues and events –that is, what the interviewee views as important in explaining and understanding events, patterns, and forms of behaviour.'

(Bryman, 2004, p323)

The questions were also asked in such a way as to elicit description and detail while avoiding yes and no answers which may have limited the conversation. Where people did answer with yes or no this was usually followed with questions which asked for clarification or elaboration. As interviewing is an ongoing process that develops from one interview to another, new lines of questioning were often added from interview to interview and during the course of interviews themselves when new things came to mind as a result of what the interviewee had said previously. The phrasing was changed when thought to be appropriate. This is reflective of the grounded theory approach where each interview feeds into one another and also the craft of learning how best to ask interview questions as you go along (Kvale & Brinkmann, 2009, Willig, 2001).

5.3 Ethical and practical concerns

5.3.1 Informed consent for interviews

Informed consent is an important issue for interviews, arguably more so than for questionnaires, because of the more revealing and personal nature of interviews, the greater interaction between the interviewee and interviewer, as well as the issue of recording. The research of Wiles et al (2006) involving interviews with qualitative researchers, suggests that researchers should gain signed informed consent indicating that participants are actively opting to participate. This has the advantage of giving participants clear and concise information about confidentiality and anonymity that can be expected. Importantly it can also protect researchers against any accusations from participants that they were not informed.

Before the start of the interview, interviewees were therefore informed verbally that interviews were voluntary and they could withdraw from the interview at any time, not answer any questions they did not want to and that the interview was confidential; as I was the only person who would have access to recordings. They were also informed that they would be

given a pseudonym in any outputs from the research. The interviewees were then given the £10 voucher and asked to tick boxes and sign the consent sheet indicating their acknowledgement of the above (see Appendix 5 for consent sheet) People appeared generally unconcerned about confidentiality and it only developed into a discussion on a couple of occasions. All interviewees were happy to sign the consent sheet.

There could have been some concern that payment may encourage people to participate even though they did not want to, particularly if they were poor; however the voucher was perhaps a different kind of payment to cash and was unlikely to be much of an incentive to people who really did not want to participate. In addition the way in which people could indicate their interest in interviews on the questionnaire return sheet was likely to remove any sense of obligation that may have occurred if asked to participate face to face. The research was also not of a sensitive nature or particularly controversial so this led me to believe that people were unlikely to feel they were revealing anything particularly personal, or regret their participation.

5.3.2 Recording

The interviews were all recorded using a digital voice recorder. This produced high quality recordings which could be transferred to the computer and converted to WAV files, which could be listened to at a convenient time and speed. Voice recording was conducted for two reasons. Firstly, to be able to have continuous conversation, as writing notes would have seriously disrupted the flow of the interview. Secondly, it provided an accurate representation of what was said. Without voice recording only the basics of any conversation could be captured and potentially be misinterpreted. Research suggests that recording largely eliminates the potential concern of interviewees that they might be misinterpreted. As Pile suggests

'The analysis of language can only be carried out with confidence if there is an entire record of a conversation. Hastily scribbles notes... are not accurate enough to be used in this way. Tape recorded session provide the only viable data for this kind of analysis.'

(Pile, 1990, p217)

5.3.3 Transcription

The decision to transcribe interviews myself was made in order to assist me in gaining a greater familiarity with the data, and so represent what participants said in the interviews to a greater degree than an outsider who did not have such awareness of what happened during the interview. This knowledge was enhanced by the taking of field notes and writing of memos immediately after each interview. Transcription is also arguably part of analysis (Kvale & Brinkmann, 2009, Denscombe, 1998) in the sense that it involves making decisions about what to include and to exclude, in terms of the amount of detail and how closely one pays attention to the context and to other aspects of communication during the interview. These all affect the subsequent interpretation of what is said and underline the importance of the researcher transcribing the interviews rather than someone who has no role in the research.

The interviews were therefore transcribed almost verbatim (i.e. including all ‘umms’ and ‘ahhs’, pauses, etc, as far as possible), however overlapping of the conversation where this did not impact the flow was not recorded as this could have created confusion when read on the page. As Poland (1995) has reported the very concept of a sentence fits with the tradition of written language and does not translate well into oral language where we generally talk in flowing ‘run-on sentences’, which are difficult to record in writing. Where to insert periods and commas is therefore an interpretational process and could easily be subject to contestation, however I tried as much as possible to accurately represent what was said.

Time scales were recorded (for example long pauses, repetitions), as these could have had an impact upon what was actually said. Emotions were also recorded as far as possible (for example, angry, annoyed, happy). These are of course, reliant on subjective judgement. However, my belief is that the interpretation of peoples’ emotions was generally correct, as they were recorded in memos and field notes immediately after the interviews. This was done to give as much attention as possible to the context and feel of the interview. Each transcription was generally done before the next interview in order that it could inform the next interview, however on some occasions due to time restrictions this was not possible.

5.4 Analysis decisions

Both methodological literature and previous studies often contain little or no explanation of how interviews were analysed, and researchers are often left to make up their own scheme for analysing interviews (Stroh, 1999, unpublished thesis). It is of course understandable that writers of methodology books are reluctant to be prescriptive as all qualitative research is different and different aims and approaches will necessitate different analysis techniques. One exception to this is perhaps grounded theory which is often suggested to be overly prescriptive (Crang, 1993) (This is debatable and depends upon which of the developments and refinements of grounded theory made by the original authors you read). However if researchers were more explicit about the steps taken in their analysis of interviews it would make it easier for those who wanted to follow in their footsteps. My intention was to be as explicit as possible in describing choices and decisions made in the analysis process in order to aid transparency and for the subsequent benefit of the reader.

5.4.1 Coding issues

Much of the preliminary stage of qualitative analysis was taken up with coding

‘Any researcher who wishes to become proficient at doing qualitative analysis must learn to code well and easily. The excellence of research rests in a large part on the excellence of coding.’

(Strauss, 1987, p27 cited in Bazeley, 2007, p67)

A number of different decisions had to be made about the general approach to coding before commencing the research. Particularly significant were:

- whether to use Computer Aided Qualitative Data Analysis Software (CAQDAS)
- broad or specific categories as starting points
- open or a priori coding

5.4.2 Computer Aided Analysis

It has been argued that computer analysis which keeps the initial context of the data easily accessible improves the process of coding and retrieval functions of analysis. This is opposed to the potential possibilities of endless pieces of paper, which result from manual coding. Despite this convenience some researchers have issued warnings about being too reliant upon CAQDAS particularly because it may encourage a mechanistic approach which can lead to lack of interest in context and data as a whole. Mason, for example, argues against believing that slices of data that have been coded are complete variables for analysis, rather she suggests they are viewed as unfinished resources which prompt more thinking. She also warns against trying to code everything cross-sectionally when this is neither possible nor desirable (Mason, 2002)

The decision was made to use NVivo for organisation and retrieval, however initially transcripts would be read through and coding suggestions were recorded manually and then transferred to NVivo. One reason for this decision was my personal preference for reading paper copies rather than reading off the computer screen. Following Mason (2002) I felt it would allow for a greater understanding of the context from which data may come and help to guard against seeing sections of data as complete variables.

5.4.3 Developing coding scheme

A decision had to be made about whether the coding scheme should start with broad categories and narrow down or the reverse. In this research I felt it was important to start small and work upwards. It is my belief that if one starts too broad and tries to fit things into predetermined or overarching categories one may miss idiosyncrasies, important details, differences or things that do not fit in with these categories. It is of course possible, and desirable, to combine smaller and larger categories and to merge categories at a later point (or at least grouping of categories –see node section). This approach reflects a grounded theory inspired approach which draws heavily upon the detailed and rigorous analysis of the text at the most minute level.

5.4.4 Open coding

A decision had to be made as to whether to use open coding (codes which are derived from the data) or a priori coding (codes which are developed at earlier stage and then attached to relevant data). Drawing upon another aspect of grounded theory and reflecting the exploratory

emphasis of the interviews, I wanted to be reasonably open minded in coding and reading of the text, as otherwise there was a danger of imposing what I believed to be important and seeing things that perhaps were not there or conversely missing things that were important.

Therefore, generally open codes were derived from the data. However it is slightly misleading to suggest there was no prior imposition within even an open coding scheme. as it is inevitable that people have certain preoccupations and themes which perhaps they search for unknowingly. There were also particular areas for which I knew there would be codes, even if I had not formally laid them out beforehand. For example, codes referring to places such as Devonshire Green.

Furthermore it is a mistake to argue that grounded theorists have advocated approaching research with a blank mind.

'to be sure one goes out and studies an area with a particular...perspective, and with a focus, a general question or a problem in mind. But the researcher can (and we believe should) also study an area without any preconceived theory that dictates, prior to the research 'relevancies' in concepts and hypotheses.'

(Glaser & Strauss, 1967, p33)

5.5 Analysis stages

5.5.1 Stage 1: Memo/initial thoughts

After each interview memos were created about how the interview went and possibilities for improvement of questioning or other concerns, for example presentation of self. The interviews were then transcribed and notes made about general impressions, topics, themes and preoccupations that emerged. Appropriate questions, phrasing of questions, order of questions and new issues to be explored with subsequent interviewees were learnt, which was very valuable to the interview process. Constantly reviewing how the interview went and particularly your role as interviewer within it is important in order to improve for the following one:

'when learning a craft such as that of interviewing, it is particularly important to constantly review what you did and the way you did it so as to see how you might have done it differently and better'

(Wengraf, 2001, p28)

5.5.2 Stage 2: Initial coding

To start the initial coding a practice run was made by coding one transcript in Nvivo. This led to the realisation that far too many codes had been created to be initially manageable. While of course bearing in mind that they are not permanent and can be moved and merged and new ones created, I still felt that I had begun the process of coding and categorising without giving enough thought to the transcript and interview as a whole, the feel of it, the main preoccupations of the participant, and issues of reflexivity. Therefore the decision was made to spend more time going through transcripts manually in detail, looking for important issues, seeing where possible themes might develop, recording consistencies and inconsistencies in the data and also marking these on the manuscript. Once this stage was completed I felt it would be easier to refer to

these notes, and possibly code themes that were marked on the transcript and in memos and then progress to using NVivo to code and retrieve as there would be a greater awareness of areas of importance.

Coding involved different levels of what counted as data, reflecting another important choice in analysis (Mason, 2002). Codes were *literal* in terms of what is being said, interpretive in terms of what was meant, and what picture they were trying to construct (or not to) as well as reflexive (awareness of interaction between researcher and participant).

This reflects a concern not to fall into the trap of relying on an approach which simply reports interviewees' common sense categories without developing those of the researcher; something which is frequently done (Silverman, 1998a). Echoing Wengraf (2001) I was therefore alert for the difference between looking at 'stories as presented' and 'realities as were' because '*the reader of an interview text should always be alert for suggestions of difference between the two*' (Wengraf, 2001, p28).

5.5.3 Stage 3: Refining coding with NVivo

After initially going through the transcripts, more rigorous and defined categories were developed and applied across the transcripts using NVivo. It involved looking for comparisons across different cases for similarities as well as differences. Following Bazeley (2007), NVivo coding started with two different but in some way representative interviews, as the process was easier if started with a greater number of relevant codes and then applied to subsequent transcripts. Using Nvivo, extracts were coded and moved into a Node which represented a theme. Thus it was possible to have many files which contained the extracts referring to different themes. You could also click on the link back to the existing transcript, so it was easy to find the context from which it came. Multiple codes were used for the same section of text as they could say many different things within one extract (and also overlap different areas of text).

5.5.4 Tree nodes vs free nodes: Coding in NVivo

Coding started with Free Nodes which means nodes were unrelated. These were then reorganised into Tree Nodes when it became apparent what their relationship was (although some remained as Free Nodes). Tree Nodes are organised hierarchically to indicate the relationship between nodes, for example if looking at wellbeing a 'parent node' could be precursors to wellbeing and then 'branch nodes' could be these aspects, for example, a good job or health.

Bazeley points out that people who look at the same data from different perspectives or with different questions are likely to create differently labelled and organized trees of nodes (Bazeley, 2007, p102). This is not an issue in research conducted by one person, although in this research it meant it was important to acknowledge my role in shaping the structure of analysis.

rather than seeing it as something that would have emerged from the transcripts in the same way whoever had conducted it.

The relationship between nodes can and was changed during the analysis. It is also true that ideas about what is relevant or important as you code can change – It is very easy to concentrate on a thread of thinking and then later realise it is not important or relevant to the current project or to use codes that were set up initially but then become difficult to use and which finally don't advance your understanding (Bazeley, 2002). This was arguably another advantage of having many different nodes, because the ones that are less important will have far less data in them –if one had started with broad categories it would become more complex to separate the different areas that were relevant or not relevant. The coding system stabilizes but remains open and flexible as analysis progresses (Bazeley, 2002). As well as creating new nodes with diminishing frequency, nodes can be merged together if they are about the same subject. For example, initially one may think two nodes are different, then come to realise they are about same thing, or there might be only one reference for a particular node so it might be better if combined with another node in order to facilitate comparison.

5.5.5 Constant comparison

The process of *constant comparison* is said to aid the researcher to go beyond reporting participants common sense categories into theoretically relevant study and was conducted to a degree in this research. Constant comparison involves coding together data that records different incidents in the same theme in order for it to be compared. So, for example, constant comparison in terms of living in the city centre could involve examining how people differed in their views of the long term nature of living in the city centre, and how this was related to other beliefs or characteristics. Constant comparison is akin to variable analysis warned about by Mason (2002), and is not necessarily all that this research should be about. As we saw previously, analysis can be conducted on different levels. This includes other ways of engaging in analysis that are not necessarily about such comparisons of categories, for example, how people present themselves or arguments, or employ discourses.

5.6 Obtaining interview sample

It has been argued that sampling receives less theoretical consideration than other areas of qualitative research (Curtis et al, 2000) and is often not given the same priority that it is accorded within quantitative research:

'Sample sizes are often selected in a seemingly arbitrary manner in many research studies and little or no rationale is provided for the sampling scheme used.'

(Onwuegbuzie, & Leech, 2007, p106)

This assertion is partly true but is also somewhat misleading. It is not necessarily that sampling is not given due consideration, rather that there are no hard and fast rules and protocols as there

are with quantitative sampling methods. Sampling is always more contextual within qualitative research reflecting the more grounded and specific nature of the research.

5.6.1 Theoretical approach to sampling

As highlighted previously a mixed methods sampling strategy was employed which involved using the respondents of the questionnaire as a sampling frame to obtain interviewees. 115 of the questionnaire respondents had indicated they would be willing to participate on their reply slip. The first issue considered when drawing the sample was whether to take the whole sample initially, or to sample as the research developed and select people on the basis of developing insights. This issue probably reflects the principal distinction between qualitative sampling methods: *purposive sampling* which is predefined before the research starts and drawn from existing theory (Curtis et al, 2000) or *theoretical sampling*, which is based on the grounded theory requirement to select people on the basis of emerging theory as research develops.

As this was primarily exploratory research it was considered the best approach was to select a sample on the basis of different important characteristics at the outset. This would ensure a wide coverage of people and their opinions and experiences rather than possibly narrow down the focus early on if following theoretical considerations. The sample could be changed if particular themes emerged which would be better explored with other participants. However it seemed prudent to take advantage of already known demographic characteristics, as well as knowledge of the usage of green spaces and to therefore select people on this basis (Jones, 2002).

Thus, while there was an aim to employ an approach that tended towards maximum variation sampling (although perhaps not diverse in all categories), in line with the approach of Finch and Mason (1999) there was a desire to have a flexible approach to sampling. This meant that it was possible to change the people sampled as the research progressed and also reflected a pragmatic assessment that many people who were initially contacted would not want to participate which might have resulted in being rigidly tied into an ineffective sampling scheme. It was important to recognise that in selecting a variety of participants it was not because of the belief that they 'represented' a particular age group for example, but rather provided a flavour of differences inherent in city centre life (Kvale & Brinkmann, 2009).

5.6.2 Sample size

In line with sampling strategy there is little discussion of what size of sample was sufficient for qualitative interviews in previous literature, although qualitative researchers that have made recommendations appear to fall broadly between 10-50. Cresswell (2002, p197) for example, provides recommendations that vary according to the type of research:

- a) 1 group in ethnography
- b) 3 to 5 cases in case study

- c) interview 15-20 people during grounded theory study
- d) narrative story of 1 individual

Kuzel (1992) suggests 6-8 data sources when subjects are homogenous, although suggests that 12-20 sources are generally necessary. Morse suggests 30-50 interviews and/or observations. Kvale and Brinkman (2009) suggest that in common interview studies the number of interviews tends to be around 15+/-10. They argue that this number may reflect the combination of time and resources and law of diminishing returns; after a certain point adding more and more respondents would yield less and less new information. It is important to remember that more does not equal better. Kvale and Brinkmann suggest that many current studies would have benefited from having had fewer interviews in the study and instead more time having been taken to prepare for interviews and analyse them.

'Perhaps as a defensive overreaction, some qualitative interview studies appear to be designed on a misunderstood scientific presupposition that the more interviews, the more scientific.'

(Kvale & Brinkmann, 2009, p27)

The size of the sample required, arguably depends upon the aim of the research and the questions being asked, if the aim is to achieve saturation (Onwuegbuzie & Leech, 2007). Specifically the broadness of the subject area and experiences that are required in order to feel what is needed to know has been covered. In addition, there is a need to weigh up the size of the sample against the possibility for in-depth analysis which is particularly important in a single-researcher study such as this where time was limited.

'In general sample sizes should not be too small that it is difficult to achieve saturation. At the same time, the sample should not be too large that it is difficult to undertake a deep, case-orientated analysis.'

(Onwuegbuzie, & Leech, 2007, p109)

There are endless possibilities for continuing research as new questions and possible avenues for research develop, the scope of the study could easily become broader than intended, particularly as its aim was exploratory. Thus a pragmatic definition of saturation was employed which did not seek to achieve saturation for all possible avenues of the research, but those for which the most pertinent and rich data was produced. The intention therefore was to achieve a minimum of fifteen interviews which would allow for exploration of diverse themes with a diverse sample but also hopefully achieve some degree of saturation. However as suggested above, this certainly was not fixed in stone and was flexible depending upon emerging themes in the interviews.

5.6.3 Obtaining sample: practicalities

Fifteen people were selected on the basis of variation in a number of factors, initially, usage of green space and perceptions of green space. Participants were chosen to provide variation in age, location of their home and gender. While there was an aim to achieve a minimum sample size, many of the people who had been selected initially, did not respond. Thus the sampling

strategy became less systematic and whilst still attempting to maintain diversity amongst the interviewees the practicalities came more to the fore. People were contacted in groups of around five or six to ensure too many interviews were not arranged for any one period. Interviews were staggered in order to be able to transcribe them and to do preliminary analysis before the next one. This generally averaged at around two interviews per week. A total of twenty interviews were conducted (eighteen in this period, two pilot interviews at an earlier stage).

5.6.4 Interviewees

The interviews were conducted from May to October 2008, with the majority between June and September. Most were conducted in people's homes, with a few in public places and some either at their workplace or mine. Choice of venue was requested by the interviewee. There was a mix of males and females and different ages. There were no people over seventy, due to lack of response. People lived in a variety of areas in the city. Due to ethical considerations particular buildings where participants lived have not been named as this could have increased the possibility of identification. The types of property people lived in have been indicated, for example, housing association property, conversions or new development. New has been classified as built within past nine years, modern as pre 2000, or older pre 1960.

Table 5.1. Characteristics of interview

Pseudonym	Age	Sex	Accommodation type	Location of interview	Time of interview
George (pilot)	55-64	m	Flat/ new dev	Home	55 min
Amy (pilot)	25-34	f	Flat/ new dev	Public place (bar)	50 min
Gail	45-54	f	Flat/ new dev	Workplace	40 min
Caroline	65-74	f	Flat/ conversion	Home	52 min
Harriet	25-34	f	Flat/ new dev	Workplace	53 min
Rose	45-54	f	Older house	Home	1 hr 12 min
Louise	35-44	f	HA flat/ older	Home	1hr 9 min
Claire	25-34	f	Older house	Home	1hr 20 min
Andrew	25-34	m	Flat/ new dev	Workplace	52 min
Stewart	45-54	m	Flat/conversion	Workplace/ Public place (student café)	56 min
Mark	35-44	m	Flat/conversion	Home	1 hr 32 min
Karen	25-34	f	HA flat/modern	Home	1 hr 55 min
Pete	25-34	m	Older house	Home	53 min
Simon	35-44	m	Flat/ conversion	University office	1 hr 11min
Kerry	25-34	f	Flat/ new dev	Public place(bar)	45 min
Vivien	55-64	f	Flat/ conversion	University office	1hr 52 min
Kate	16-24	f	Flat/ex council block	Workplace	45 min
Jane	45-54	f	HA flat/ modern	Home	1 hr 12 min
David	16-24	m	Flat/new dev	Workplace/ public place (student union)	40 min
John	45-54	m	Flat/converted Hall of residence	Home	1hr 30 min

5.7 Appraisal of interviews

After each interview a memo detailed any specific aspects that stood out, any surprises or any difficulties encountered and my views about the interview generally. This section highlights some of the issues raised in the memos developed from a consideration of the amalgamation of all interviews.

5.7.1 Memo highlights

How the interview felt to be going at the time, for example, the ease of conversation, was not a good indication of the value and relevance to the research questions. This became apparent in the transcription and then the analysis. As Kvale & Brinkmann point out:

'The idealized interviewee appears rather similar to an upper-middle-class intellectual, whose views are not necessarily representative of the general population. Well-polished eloquence and coherence may in some instances gloss over more contradictory relations to the research themes.'

(Kvale & Brinkmann, 2009, p35)

However, while Kvale and Brinkmann suggest this ideal type interviewee, the ease of interviewing in this case bore no relation to education level or social class, and nor indeed did the quality of information.

An important element of an interviewer's role is to elicit information from people who are not responsive or articulate. In fact most of the interviews undertaken for this research proceeded well, although some people were more expansive than others and there were a couple of incidences where it was difficult to illicit more information without posing leading questions. In contrast, there were a few people who were very talkative about subjects not necessarily relevant to my research questions and needed to be redirected, while at the same time allowing them the chance to talk about subjects which were of particular interest to them.

Interviews conducted in public places were generally the most difficult because of noise and also the visual distractions of people coming and going, which resulted in it being harder to maintain the concentration of the interviewee. However these had the advantage of reducing the possible risks inherent in conducting interviews in people's homes, although in no situation did I feel fearful in an interviewee's house.

The vast majority of the interviewees were friendly and generally expressed their keenness to participate. Interviews were followed up with an email to thank people and approximately half replied saying how much they had enjoyed participating and some offered to take part in further research. No one complained about any part of the interview process.

5.7.2 Presentation of self

Interviews are a two way process, so my role was integral to the construction of the data; a different person could conduct a totally different interview and obtain different answers to the same questions.

As Selitz and Jahoda (1962) state:

'Much of what we call interviewer bias can more correctly be described as interviewer differences, which are inherent in the fact that interviewers are human beings and not machines.'

(1962, p41, cited in Fielding & Thomas, p139)

Before conducting the interviews I was aware of the importance of my manner and appearance and its influence on how people perceived me and what responses they gave. For example in terms of dress, a smart-casual look was employed generally and I also tried to make myself look as inconspicuous as possible. However, there was also an element of trying to tailor myself to the setting: For example, in order for the interviewee to feel comfortable, when going into someone's office environment I felt it was important to look smarter than if meeting a student at a café.

5.8 Conclusion

This chapter has highlighted the interviews, outlining the basic reasons for using semi-structured interviews, decisions made about the conduct of the interviews and the analysis of interviews. The section also highlighted my feelings about the conduct of the interviews. The next part of the thesis will explore the results obtained from the study.



PART III

Results

Discussion & Conclusions



Chapter 6 City Centre Living

S: As a single person living on their own, you're in the middle of things when you want to be and not when you don't, so I have complete privacy and isolation when I want it, but I only have to step outside the front door and I'm in the buzz of a city, which is really nice.
(Stewart)

This chapter reports findings in relation to the general experience of living in the city centre. Section 6.1 introduces the demographic characteristics of the questionnaire sample and then examines people's living circumstances within the city centre, while 6.2 explores perceptions of the city centre. The principal component of this chapter focuses upon qualitative data from the interviews; 6.3 highlights the positive and negative features of living in the city centre, 6.4 examines the differences among city centre dwellers. 6.5 looks at the issue of community and 6.6 explores the development within the city.

6.1 Respondent characteristics

This section examines the personal, socio-economic, health and household characteristics of the respondents to the questionnaire (Tables 6.1-6.5).

6.1.1 Demographic characteristics

Table 6.1. Demographic characteristics

Age	No (%)
16-24	42 (18.8)
25-34	80 (36)
35-44	38(17)
45-54	28 (12.6)
55-64	23 (10.3)
65-74	8 (3.6)
75+	3 (1.3)
Gender	No (%)
Male	112(50.5)
Female	110 (49.5)
Country of origin	No (%)
UK	182(82.7%)
Not UK	38(17.3)
Ethnic origin	No (%)
White	189 (84.8)
Black	9 (4)
Mixed race	7 (3.1)
Asian	11 (4.9)
Chinese	2 (0.9)
Other	2 (0.9)
Religion	No (%)
None	103 (46.2%)
Christian	86 (38.6)
Buddhist	6 (2.7)
Hindu	5 (2.2)
Jewish	1 (0.4)
Muslim	8 (3.6)
Other	3 (1.3)
Don't want to say	3 (1.3)

Age: 25-34 is the most populous age group, and over half of respondents are under 35. Just over 15% of people are over the age of 55, only 5% 65+.

Gender: There was an almost equal gender split with 112(50.5%) male and 110(49.5%) female.

Country of origin: The sample was predominantly born in the UK with 182(82.7%) born in the UK and 38(17.3%) born outside the UK

Ethnic origin: Almost 85% of respondents were white

Religion: Over 75% of respondents are Christian, or have no religion

6.1.2 Socio-economic and education characteristics

Table 6.2. Socio-economic and educational characteristics

Education level	No (%)	
none	17 (7.6)	
1 O'level/GCSE/NVQ 1 or equivalent	9 (4)	
5 O'Level/GCSE/NVQ2 or equivalent	13 (5.8)	
1+ A/S Level,NVQ 3/4/5	55 (24.7)	
First degree	74 (33.2)	
Postgraduate degree	49 (22)	
Employment status	No (%)	
Student	41(18.4)	
Part time	17 (7.6)	
Full time	110 (49.3)	
Self-employed	15 (6.7)	
Unemployed	13 (5.8)	
Looking after home/family	4 (1.8)	
Retired	20 (9)	
Other	1 (0.4)	
Household income	Household no (%)	Individual no (%)
<£10,000	46 (20.6)	67 (30)
£10,000 -19,999	35 (15.7)	53(23.8)
£20,000 -29,999	39 (17.5)	45 (20.2)
£30,000 -39,999	38 (17)	21(9.4)
£40,000 -49,999	17 (7.6)	5 (2.2)
£50,000 -59,999	11 (4.9)	3 (1.3)
£ 60,000+	13 (5.8)	5(2.2)
Did not want to say	7 (3.1)	7(3.1)
Access to car	No (%)	
Yes	133 (60.2)	
No	88 (39.8)	

Education level: People were asked to indicate their maximum level of qualification. This was a highly educated sample as over half of the respondents were educated to degree level or higher (Table 6.2).

Access to car/vehicle: 60.2% have access to a car, 39.8% do not.

Employment status: Nearly half of people were in full time employment. There was a significant number of students and retired people and smaller numbers in part time employment, self-employment and unemployment. Only very small numbers were looking after home/family and had other employment status. Many of the students had part time jobs in addition to being a

student. However it was decided that being a student was more likely to impact upon life in a different way than being in part time employment (for example, how they used city and green spaces, money etc) and so people who indicated both were recorded as students.

Household income: The highest numbers were in the lowest income category (which included a large percentage of students) and relatively few in the £40k + categories.

Individual income: This was calculated by ascertaining the mid point of the category which people were in originally and then dividing by the number of people in the house, excluding children. Results showed the lowest income group was still the largest, but there were fewer in the other categories, particularly the over £40,000 group.

6.1.3 Health and wellbeing

Health over past year: People were asked to indicate how they felt their health had been over the past year. Nearly 66% of respondents felt they were in good health, around a quarter (27.1%) in fairly good health, but only a small number (7.2%) felt that their health was not good (Table 6.3). This may reflect the young age of the sample.

Disability/long term illness: 18% felt that they had a disability/long term illness, 82% of people had no disability/long –term illness that limited daily activities.

Table 6.3. Health frequencies

Health over past year	No (%)
Good	145 (65)
Fairly good	60 (26.9)
Not good	16 (7.2)
Disability/long term illness	No (%)
Yes	40 (17.9)
No	182 (81.6)
Disability affects use of green space	No (%)
Yes	14 (6.3)
No	26 (11.7)

6.1.4. Accommodation

Type of accommodation: The majority of people lived in flat/maisonette which would be expected of a city centre population (Table 6.4).

Tenure: The largest amount of respondents were owner occupied, however there were significant numbers that lived in council or Housing Association accommodation and private landlord accommodation. People in the ‘other’ category were renting from a variety of different landlords including University and Armed Forces accommodation. For analysis a recode has been conducted which places all these in the private landlord category. The figures can be seen in Table 6.4.

Time in current accommodation: The largest group, with over half of respondents, had been in current accommodation for 1-5 years, the second grouping number is the less than 1 year

group, followed by the 6-10 years group. Less than 14% of people had lived in their accommodation for over 10 years. This suggests a generally transient population with a minority that are longer stayers.

Others in household: The largest group of people lived alone, closely followed by people who lived with one other person. Less than 25% of people lived with more than 1 person.

Children in household: Only 22 people had children in the household. That is 17.6% of those who have others in the household and 9.87% of the total questionnaire respondents.

Table 6.4. Accommodation

Type of accommodation	No (%)
Flat/ Maisonette	199 (89.2%)
Room/bedsit	7 (3.1%)
Terraced house/bungalow	10 (4.5%)
Semi-detached house/bungalow	1 (0.4%)
Detached house/bungalow	1 (0.4%)
Other	5 (2.2%)
Housing tenure	No (%)
Owner Occupied	88 (39.5%)
Council/Housing Association/Local Authority	54 (24.2%)
Private Landlord	64 (28.7%) (35.75% when combined with other)
Other	17 (7.6%)
Time in current accommodation	No (%)
Less than 1 year	46 (20.6)
1-5 years	120 (53.8)
6-10 years	26 (11.7)
11-15 years	16 (7.2)
16+years	15 (6.7)
Other people in household	No (%)
None	101(45.3)
1	73 (32.7)
2	23 (10.3)
3	9 (4)
4	7 (3.1)
5+	8 (3.6)
Children in household	No (%)*
None	103 (82.4)
1	15 (12)
2	6 (4.8)
3	1 (0.8)

*calculated for people that have others in the house

Tenure and time in current accommodation It is possible that there is an association between time in accommodation and tenure. The research of Bromley et al (2007) suggests that people in private rental were the relative newcomers to the city compared to the other groups.

There is a significant difference between tenures in length of time people have been in city centre (Kruskal Wallis Chi Square = 32.124, df =2, p<0.001) An examination of the medians revealed that they were the same (2). However due to the high figure for chi square and the very low p value it was felt worthwhile to conduct a cross-tabulation in order to see how the different tenures varied in the time lived in their accommodation.

Table 6.5. Tenure and time in current accommodation showing actual and expected counts

Housing tenure			
Time in accommodation	Owner occupied Count (expected)	Council/LA/Housing Association Count (expected)	Private rental Count (expected)
<one year	11 (17.9)	4(11)	30 (16.1)
1-5 years	55 (47.4)	24 (29.1)	40 (42.5)
6-10 years	13 (10.4)	10 (6.4)	3 (9.3)
11-15 years	7(6.4)	8 (3.9)	1 (5.7)
16+ years	2 (6)	8 (3.7)	5(5.4)

Table 6.5 shows that there was a larger number of private rental tenants who had lived in their accommodation for less than one year than would be expected if there was no relationship between housing tenure and time in accommodation. Correspondingly there were less owner-occupied and social housing in this category than would be expected. Due to the small number of questionnaire respondents that had lived in the city centre for over ten years, it is difficult to ascertain any differences between the housing tenure categories, however it appears there may be more people in social housing in this category than expected.

6.2 Perceptions of local area

This section explores how people felt about the area in which they lived.

6.2.1 General perceptions

Safety in area: We can see that most respondents felt that their area was quite safe, very few felt that the area was very unsafe (Table 6.6).

Appearance of area: The largest group felt that the appearance of the area was ‘quite good’, followed by perceiving that the appearance of the area was ‘neither bad nor good’. Very few people (less than 2%) felt that the appearance of the area was ‘very bad’.

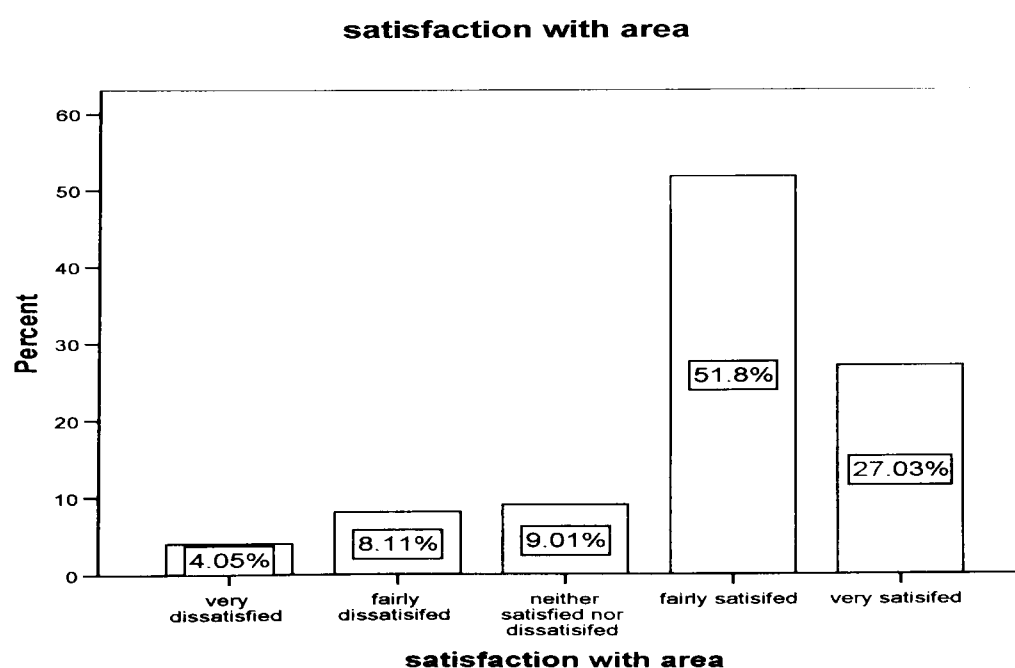
Friendliness of area: The largest group of people felt that the area was quite friendly, closely followed by neither friendly nor unfriendly. There were very few who thought the area was very unfriendly.

Crime: Over half of respondents felt that crime was a slight problem in their area. Almost equal numbers of people felt that crime was not a problem, or didn’t know whether crime was a problem. Less than 10% of people felt that crime is a large problem in the local area.

Community spirit: Over half of respondents believed there was no community spirit in their area. Around a quarter of people believed there was community spirit in their area. The remainder did not know.

Table 6.6. Perceptions of area

Safety in area	No (%)
Very unsafe	3 (1.3)
Quite unsafe	16(7.2)
Neither safe nor unsafe	27 (12.1)
Quite safe	135 (60.5)
Very safe	40 (17.9)
Appearance of area	No (%)
Very bad	3 (1.3)
Quite bad	27 (12.1)
Neither bad nor good	55 (24.7)
Quite good	119 (53.4)
Very good	17 (7.6)
Friendliness of area	No (%)
Very unfriendly	1 (0.4)
Quite unfriendly	17 (7.6)
Neither friendly nor unfriendly	77 (34.5)
Quite friendly	109 (48.9)
Very friendly	18 (8.1)
Crime a problem in area	No (%)
Don't know	35 (15.7)
Large problem	20 (9)
Slight problem	133 (59.6)
Not a problem	33 (14.8)
Community spirit in area	No (%)
Don't know	39 (17.5)
yes	51 (22.9)
no	132 (59.2)
Satisfaction with area	No (%)
Very dissatisfied	9 (4)
Fairly dissatisfied	18 (8.1)
Neither satisfied nor dissatisfied	20(9)
Fairly satisfied	115(51.6)
Very satisfied	60 (26.9)

Satisfaction with area**Figure 6.1. Satisfaction with local area**

People were generally satisfied with their local area with nearly 80% saying some degree of satisfaction, although the majority were fairly satisfied rather than very satisfied. Less than 5% of people were very dissatisfied with their local area.

6.2.2 Relationship of area perceptions to area satisfaction

Table 6.7 shows that all the perceptions tested were related to overall satisfaction with the local area. There are moderate positive correlations between how safe people felt in the area, appearance of area, friendliness of area, satisfaction with accommodation, satisfaction with local green space, and satisfaction with local area.

There was a significant difference between how people perceived the issue of crime and whether there was community spirit; and their level of area satisfaction. The Kruskal Wallis test did not indicate direction of relationship, so an examination of medians was conducted.

Median area satisfaction for whether crime was a problem, were: Large problem: 3.5, Slight problem: 4, Not a problem: 4, Don't know: 4. This suggests that people who perceived crime as a large problem had lower average satisfaction with their local area than other groups.

Median area satisfaction for perceptions of Community Spirit, were: Yes: 5, No: 4, Don't know: 4. This suggests that people who perceived that there was community spirit in the area had a higher area satisfaction than those that either said there was no community spirit or did not know.

Table 6.7. Perception of elements of local area and area satisfaction

Perception	Test used	Statistic	P value
How safe feel in area	Spearman's rho	0.455	<0.001
Appearance of area	Spearman's rho	0.484	<0.001
Friendliness of area	Spearman's rho	0.362	<0.001
Accommodation satisfaction	Spearman's rho	0.530	<0.001
Green space satisfaction	Spearman's rho	0.369	<0.001
Is crime a problem in the area?	Kruskal Wallis	12.822	0.005
Community spirit	Kruskal wallis	19.917	<0.001

6.2.3. Tenure and area perceptions

The statistical tests were conducted which suggest that there were significant relationships between tenure and: friendliness of area, community spirit and satisfaction with area (Table 6.8). Examining medians and the relevant cross-tabulation allows us to see the direction of relationships.

Table 6.8. Relationships between tenure and area perceptions:

Perception	Test used	Statistic	P value
Appearance of area	Kruskal wallis	1.469	0.480
Friendliness of area	Kruskal wallis	8.228	0.016
How safe feel in area	Kruskal wallis	5.239	0.073
crime	Chi square	10.661	0.099
Community spirit	Chi square	10.345	0.035
Satisfaction with area	Kruskal wallis	6.836	0.033

Tenure and community spirit

There appears to be little difference between expected and observed counts for owner occupied people (Table 6.9). Examining the social housing group there was more than expected who believed there was community spirit and less than expected who did not. For private rental there was less than expected who believed there was community spirit and more than expected that did not.

Table 6.9. Cross-tabulation of tenure and community spirit

Community spirit	Owner occupied Actual (expected)	Council/housing Association Actual (expected)	Private rental Actual (expected)
Don't know	14 (15.2)	14 (9.2)	10(13.6)
Yes	21 (20)	16 (12)	13 (18)
No	53 (52.8)	23 (31.8)	56 (47.4)

Tenure and satisfaction with area: Median area satisfaction: Owner-occupied =4, council/Housing Association =4, Private rental =4. This suggests there is little difference on average. The mean ranks suggest a slight difference with owner-occupied having slightly higher than private rental who in turn were higher than council, however in light of the same medians and the p value only being just significant then it was difficult to say that there was a real difference between the groups.

Tenure and friendliness of area: Median area satisfaction: owner occupied =4, council/Housing association =4, private rental =3. This suggests that people in private rental believed that the area was less friendly than the other groups. Through examining the mean ranks it appears that on average, owner occupiers felt the area was less friendly than council dwellers.

6.2.4 Time in Current accommodation and area perceptions

Statistical tests were conducted to explore the relationships between time in current accommodation and perceptions of local area, with most perceptions showing no relationships (Table 6.10). There was a very low negative correlation between length of time in current accommodation and the perception of safety. Additionally, there was a significant difference between opinions about whether crime was a problem and length of time people had lived in their current accommodation. The ranks suggested that people who didn't know whether crime was a problem and people who thought crime was not a problem, had lived in their accommodation for a shorter time than people who thought it was a slight problem or large problem. People who perceived crime to be a slight problem also tended to have lived in their accommodation for a shorter time than those who perceived crime to be a large problem.

Table 6.10. Relationships between time in current accommodation and area variables

Perception	Test	Statistic	P value
Appearance of area	Spearman's rho	-0.072	0.286
friendliness	Spearman's rho	0.027	0.694
Safety	Spearman's rho	-0.152	0.024
Satisfaction with accommodation	Spearman's rho	-0.055	0.412
Satisfaction with area	Spearman's rho	-0.120	0.075
Crime a problem?	Kruskal wallis	17.265, df=3	0.001
Community spirit?	Kruskal wallis	4.235, df=2	0.120

From Table 6.11 it can be observed that amongst those who had lived in their accommodation for less than 1 year, there were almost twice the number than expected who didn't know if crime was a problem. This makes sense as they may not be aware of the local situation having only lived in the area for a short time.

Table 6.11. Whether crime is a problem and length of time lived in current accommodation

Crime problem?	Less than 1 year Count (expected)	1-5 years Count (expected)	6-10 years Count (expected)	11-15 years Count (expected)	16+ years Count (expected)
Don't know	14 (7.3)	12 (18.8)	7 (4.1)	0 (2.5)	2 (2.2)
Large problem	0 (4.2)	10 (10.8)	3 (2.4)	4 (1.4)	3 (1.3)
Slight problem	22 (27.7)	77 (71.6)	16 (15.6)	12 (9.6)	6 (8.4)
Not a problem	10 (6.9)	20 (17.8)	0 (3.9)	0 (2.4)	3 (2.1)

Age and tenure: There was a significant positive association between age and tenure (Chi Square= 32.815, $p < 0.001$). There were more than expected in the younger groups who were in private rental and less than expected in owner occupied accommodation. There were more than expected people in the older category in council accommodation. While this is statistically significant, it is worth recognising that a lot of the owner –occupiers did in fact fall into the lower age groups and there were actually more than expected aged 25-34, which suggests that the younger groups were not necessarily viewing the city centre as a short term option. The intention to stay in the city centre was explored in interviews.

6.3 Qualitative perceptions: the interviews

The interviews allow us to explore how people perceive the city centre, what they value about the city centre, and to understand the particular nuances and possible differences between people that structured questioning cannot do. In addition, the questionnaire only had a small section on perceptions of living in the city centre, while there were many significant issues that emerged for people in the interviews that warranted exploration.

6.3.1 Advantages of city centre living

A major theme that emerged from the interviews was the convenience of city centre living. This was mentioned in some form by all interviewees

K: I think it is mainly the convenience and I like how people can get to me quite easily.
(Kate)

I: Can I ask why you decided to stay in the city centre?

D: err, well mainly just for convenience... its just all, so accessible and if you go to the right it's the city centre as well, so its pretty much in the centre of everything, which is err really, really good
(David)

For most people this was not in terms of one form of convenience but rather living in the city centre provided a multitude of benefits of accessibility and convenience that was dependent upon individual circumstances. There were particular features that were deemed important within this broad bracket of convenience and were generally reflective of the ability and ease to be able to walk to different facilities and be able to be spontaneous in their lifestyle. Being able to access public transport was an important feature for many as it took considerable time off journeys and made it easier to get out and about.

K:...so that's good just being in the centre of things. Also the transport to the places like Rotherham, Doncaster, is obviously easier from here than it was from being outside in one of the suburbs, having to come in and then commute back out again.
(Karen)

I: Can I ask you why you decided to move to the city centre?

M: it was to be near the train station for work, that's part of the reason. Other reasons were probably, at the time I had quite a few friends in bands that I used to go to gigs a lot in the town centre if I used to want to nip in and see somebody play for 10 minutes...I would have to get the tram and it would take two hours to get into town
(Mark)

For many people of working age, proximity to work itself was an important reason why they chose to live in the city centre environment.

A: it's very close to where I work so I don't have to worry about transport, so I just walk everywhere
(Andrew)

I: Can I ask why you decided to move to the city centre rather than any other area?

K: just because I wanted to be able to walk to work, erm as I said I spent 6 months commuting and I hated it, I don't want to have to do that anymore, so I decided and I like the local area, its just easy to get everywhere, easy if you want to go out in the evening or go shopping or everything like that
(Kate)

Being able to 'pop to the shops' at all times of the day was also spoken of particularly positively:

S: It means I shop when I want to, food shopping I don't ever have to do a big, big shop, I pop in and out of shops, if I need it, everything's very convenient.
(Stewart)

A: I'd say I like the location, for how easy it is to get to the shops and stuff, and like, if you go out in the evening its nice to crawl back (laugh)...
(Andrew)

The ability to have a varied social life using pubs, bars and coffee shops as well as cultural amenities such as cinemas, theatres and museums and galleries whose accessibility was also valued:

V: ...easy access to shops, you don't need to use the car, that's the most fantastic thing, erm, you can walk to the cinema, which we go to the cinema a lot, you can walk to restaurants, to the theatre,
(Vivien)

M: I like the art galleries in Sheffield. The millennium galleries is quite new but I particularly like the Graves Art Gallery and the library buildings I think they are some great buildings, Graves Art Gallery is one of my favourite buildings
(Mark)

In addition to convenience people often talked of a way of life and of a general buzz and the vibrancy of city centre life.

C: Err, there's always lots going on and you've never got an excuse oh we can't go out because we can't be bothered to get there! well its two seconds away. You know all the nightlife that there is, right on your doorstep, errm, if we need to go to the shop there's always something open in the city centre.
(Claire)

A: I kind of like the vibrancy of it really.
(Andrew)

The ease at which amenities could be accessed in addition to the vibrancy of the city centre, contrasted markedly in some people's narrative against the suburbs.

V: We like the vibrancy of the city, all the young people, I mean the thing is if you live in the leafy suburbs, we lived at Ranmoor, it's a bit dead up there!,
(Vivien)

A: I walk to work everyday and erm, and when I go out its just all on the doorstep really so err, yeah, and town centre and that sort of thing

I: How does that compare to Eccellsall?

A: It's about 4 miles out of the town centre. So its erm, if I go out with my friends, I'd need to get a taxi all the way to the centre and all the way back, you know, its err, you know, getting buses and things like that
(Amy)

There was a sense of being in the centre of things which was appealing to people, being in a busy and lively place. However, the city centre of Sheffield was also by its position and character deemed a place where it was possible to escape from this vibrancy. Some residents valued their particular location for this reason.

K: I moved generally back up north just because I wanted to be closer to my family and kind of roots that are here and I opted for the city centre because I like city centre living to be honest, erm, and I chose Sheffield rather than Doncaster because I like the city sort of element of it but its close to all the countryside as well... I just like the idea of being in the city centre and where I am now is kind of handy so I can walk into the city centre, but also it's not right in the city centre so I can get away as well
(Kerry)

It is worth noting that while convenience and the buzz/lifestyle of the city tended to be one of main advantages of the city centre –it was not necessarily these factors that led to moving to the city centre. It tended to be a change in circumstance such as changing jobs or relationship that prompted the decision to move into the city centre (as well as out of). This has previously been

highlighted by Seo (2002) who suggests there are different factors about the city centre that draw people there and different ones which keep them there; which has implications for understanding the sustainability of city centre living.

6.3.2 Disadvantages

Noise is an example of a widely cited problem for city centre dwellers and was mentioned by many interviewees. Different types of noise were viewed as a problem such as traffic noise, noise from people internally and externally, noise from city centre establishments such as pubs and clubs and noise from the extensive buildings work being undertaken in the city centre. Awareness of noise as a potential problem extended to those who did not actually perceive it as a problem themselves (or at least argue such) but recognised it might be a problem for others. There was also a belief of some residents that other parts of the city or even other buildings may be noisier and that they were lucky to be in the position they were:

S: where I am is really quiet, I've got secondary glazing on the Edwardian windows, but even without them, its still a quiet bit of the city centre, you know its not Division Street. I couldn't imagine living on West Street or Division Street and I think everybody goes from there down to the clubs...but that doesn't come by me at all, so it's really quiet
(Stewart)

G: ... I love it here actually, I mean the life that people move for can be a bit errm, intrusive at times in terms of noise, err, but nobody that's been here has ever found a quieter spot than this...I mean you know I think that if I was over the other side, the other side by Tesco, looking out over West Street, I wouldn't be here 3 years!...
(George)

The idea that noise was something that should be expected in the city was a widely cited opinion although people varied in the extent to which they actually appeared to believe this to be the case

C: I mean you get noise on a Saturday night or whatever, because we were quite close to Hallam Student Union..., errm, we used to get the noise from that, but it didn't really bother us that much to be honest, errm and we were prepared for that. You expect that living in the city...
(Claire)

D: There's not anything that I'm not very happy about in the place that I live...other people and a little bit of traffic as well, especially at night, cos lots of taxi's go past at night on the street so you tend to get a little noise, but its not too bad
(David)

I: It's near the shops, near the pubs, near restaurants, it's all pluses really and you don't hear traffic noise as well which is a good thing, because people think 'ooh don't you get a lot of noise?' Yeah, sometimes at weekends you get people passing who are on their way back from nights out, you get a bit of noise from people shouting and talking, but its kind of passing noise which you get anywhere.
(Simon)

So while noise may be an irritant, it is seen as something that you get everywhere and to be expected in a city centre, therefore they felt they couldn't complain too much about it; and the positives outweighed the negatives with regard to living in the city centre. However, while for

most people noise was a minor annoyance, the fact that it could be a major issue should not be underestimated

V: we object because of their deliveries...we don't object to these places being serviced, but when they are collecting bottles in skips at 5 o'clock in the morning that's not on really is it? To local residents, so that's the thing we've had to battle against, we've stopped that. We won that battle.

(Vivien)

L: ... the students are noisy, they go out and get drunk, they come back at all hours of the night and they're beeping it and beeping it (swearing), they're shouting up the road and shouting down the road...sometimes it's absolutely unbearable.

(Louise)

Here noise was perceived by two relatively older and longer term residents as part of the inconsiderateness of other people and establishments in the city centre. It was not seen as something that was unavoidable in the city centre, but rather as something that perhaps could be changed through action. While generalisation is inappropriate, noise is perhaps an example of a problem that is representative of other concerns, reflecting the nature of how people live in the city centre. For example, people who had a long term commitment to the city centre were more likely to raise concerns.

Related to noise, concerns about traffic and parking were raised by a number of residents, although not to the same degree. For people who did drive, availability of parking was raised as was inconsiderate parking by others. The amount of traffic and the dominance of cars was an issue for some people, although the increasing pedestrianisation and corresponding cobblestones was an issue for the one wheelchair user interviewed, which is something that needs to be taken into account when considering the design and layout of pedestrianised areas.

C: I think the bug bear that I've mentioned is the absolute ubiquitous cars that ruin the vistas. One of the nicest spaces in Sheffield is Paradise Square, do you know it? It's just a sea of metal they should ban parking there.

(Caroline)

H: I haven't got a parking space, my flat there's no parking at all, like for visitors and things when they come, I think there's loads of disadvantages.

(Harriet)

In the quantitative results over 60% saw crime as being a slight problem in the city centre and less than 10% viewed it as a large problem. Over 60% of people viewed the city centre as being quite safe, with less than 10% viewing it as unsafe at all (Table 6.6). Crime and safety was also not a major concern for the interviewees however it is worth exploring how people conceptualised safety as it raises issues about how people view the city. A minority of people had experienced burglaries or attempted break-ins or knew of people who had, some had experienced vandalism, and one person had a family member who had been assaulted. One person had also witnessed a violent incident which he likened to a race riot, and his shock at this occurring was evident. Despite this, there was a more general concern with anti-social behaviour and sub-criminal behaviours in the city. These behaviours were often categorised with criminality when people were asked about their experiences of crime.

I: I wanted to ask you a bit more about safety...

H: no, just get approached a lot, from beggars and people selling, big issue people pis (stops herself mid swearing), annoy me (laugh)...they're constantly out in the city centre and so you're constantly being asked if you live in the city centre, you get asked like 5 times a day, (Harriet)

The grouping in of sub-criminal with criminal behaviours has been reported previously (Pain & Townsend, 2002) and has been argued to be related to the increased privatisation and surveillance of space which increase intolerance of difference within public space (This theme is explored in greater detail in Chapter 9). For some there was concern with certain anti-social behaviour which made them feel unsafe and often meant they avoided certain areas on the basis of experience and 'reputation'.

S: I try to avoid that end of town because I sometimes feel a bit threatened... (Simon)

Feeling threatened was associated with people 'hanging around' in spaces where it was perceived they should not be. Alcohol-related anti-social behaviour was of a concern for some of the older residents, but it should not be assumed that there was a great intolerance for this behaviour as echoed in Nathan & Urwin (2004). And while not necessarily viewed as criminal or even anti-social there was a highlighting of particular areas of Sheffield such as West Street as particular sites of drinking which could result in unpleasant experiences.

C: I don't like West Street though on Friday and Saturday night, I think it's ghastly! (Caroline)

Even for younger people there was a recognition of how public drinking could lead people to be fearful and there was a somewhat ambiguous awareness of how when people were involved in a behaviour themselves it was not a problem, but when witnessed from other people they could understand that it could be problematic.

A: Its funny when you're drunk yourself you don't really notice it, but when you're sober and you're walking through. I mean sometimes I've come across people like fighting in the street and stuff, there's been times as well like people who are drunk have shouted at people in the street (Andrew)

M: I was living in Crookes at the time and I walked along West Street for the first time in a long time, relatively sober, it felt like an alien world, it was unbelievable, all these people falling around and shouting. It was like a surreal moment from a film, I was just like floating about in the middle of it all, (Mark)

There was recognition that it was not necessarily solely negative and that people were entitled to enjoy themselves and that it was part of the vibrancy in the city centre.

V: I mean obviously I keep away from the pubs and clubs where they're more likely to be having fights and things I mean its not our scene so we don't, but you know, we walk through the city at night from the cinema or the theatre and they are all having fun on West Street, but its good natured and I like to see people enjoy themselves so I wouldn't want to stop that, (Vivien)

Many people constructed themselves as unconcerned with safety and there was a suggestion that the media played a role in making people feel unsafe. People frequently expressed that worry about crime was a greater preoccupation for other people.

S: I've been accused of living in a bubble and not aware of what's going on around me, but I feel safe...I keep filling in those police forms, and I say no, no crime, but I know there must be crime, and there must be problems and there must be these things, but I've just never seen it
(Stewart)

I: things like crime and anti-social behaviour has that ever been an issue?

K: I must admit that no, no, it hasn't for me, that is a good thing about it I guess, I've never, 'touch wood' (laughs) seen anything like that, errm, yeah so no, not at all like I got a questionnaire from the police and most of the questions seemed errm, I couldn't see..(the relevance)
(Kerry)

These two interviewees independently cited police crime survey forms suggesting they were not relevant to their situation as they did not have experiences of crime. Some women in particular suggested that they were unconcerned about walking home at night perhaps wanting to defy gender stereotypes and ideas about appropriate behaviour

C: I mean I may be naïve, but, I'm often walking home here late at night, and i'm not bothered. There was an occasion (small laugh) when I was bothered for some reason, there was a man walking on the other side of the road and I sort of hurried along and when I got here he came in behind me and went in the house a few doors away (laughs) ... and I thought 'this is silly', 'its silly', I think it's exaggerated really. But errm, no I'm not, I don't feel this horror about crime that the newspapers tell us about all the time.
(Caroline)

K: I am the kind of person that will walk everywhere and I know that I have a different perspective from other people. People are like ' aahh (intake of breath to indicate shock) I'll give you a lift' and I'm like no I'm really happy to walk, I was at the Botanical Gardens for one of the concerts and it was a lovely evening and I wanted to walk and people were like panic stricken and I was like, there's a main road that goes from there, I am very happy to walk , cos I just think, there's always, there's always people around, maybe I wouldn't at three in the morning but you know, I've never felt unsafe
(Karen)

People, who presented themselves as basically unconcerned about being personally subject to crime, presented it as a problem for other people whose attitudes they have to battle against. This is not to suggest that they do not really believe that the city centre is safe. It could also reflect their particular circumstances of living in a particular flat or area which was felt to be safer than other places.

H: there's two sides to safety, I personally feel safe there, cos like I said because I've only got one door, and I know there's loads of people around me in case there's any problems I can just go to one of the other flats or, I'm near to loads of different people in the city, I'm near to the police station.
(Harriet)

Sheffield itself was often constructed within general narrative as being a safe city, particularly compared to others, with many people citing the differences between Sheffield and other cities such as Leeds or Nottingham (the latter of which was known as an 'unsafe city') which were based on their own perceptions as well as their knowledge of official statistics which suggest Sheffield is a safe place to live.

It would however be a mistake to suggest that people were absolute in their beliefs that Sheffield was safe or unsafe, rather it was dependent upon context including both time and place. There were for example, cases of people saying that they did not walk around at night: People also adapted their behaviour at night-times to ensure they kept to well lit and populated areas:

D: ...if you go through the back way, where the Mill Alley is and its really quiet at night ...it's perpendicular to Division Street and if you go down towards the moor that streets pretty quiet at night, its pretty scary actually...i go down a different alley (at night), which is a bit of a longer way round ...

(David)

G: I don't much like the walk home, if it's late at night. I do, I have done it, but sometimes if I know I'm going to be at work very late for a meeting I'll bring the car. Even though it takes longer to drive than it does to walk it! Because the walk though the markets, its, its, I'm sure its fine really (trying to reassure herself), I walk just through, just where the markets are and erm, they, it used to have a really bad reputation, there used to be pub there, that was really bad, I wouldn't have wanted to walk across past that. But that's shut down and I'm sure actually the walks perfectly safe, there's just a bit of it where there's hardly any people and it just feels a little bit dodgy, so I try and avoid doing that

(Gail)

Safety concerns are therefore intimately connected with knowledge or presumed knowledge and local discourses about certain areas which mark certain places out as unsafe and also acknowledge the importance of the time of day in such conceptions.

6.3.3 Overview

While people generally were happy with living in the city centre there were a few people who had significant problems in the city and they were more likely to raise these with city centre managers and the council. While not exclusive, people who had significant complaints tended to be longer term and older residents, perhaps indicating a greater investment in the city centre and thus greater concerns (this will be explored in more detail in the next section). However for the majority the positives appeared to outweigh the negatives, and city centre living was generally associated with choice. For people in social housing who are often ignored in understandings of city centre living (Nathan & Urwin, 2005), their choices are made within a framework of what is available and offered to them. Despite this, for social housing residents interviewed, the city centre was seen as preferable. This was for different personal reasons, including being close to previous facilities in the suburbs and the convenience offered.

In terms of the positives and negatives the concept of tradeoffs is useful here –People are aware they have to make tradeoffs between certain issues (Nathan & Urwin, 2005). It is of course difficult to demonstrate this, apart from with people who have had experience of moving out of the city centre, such as Claire who had recently moved from a city centre flat to a house in a suburb:

C: So, it wasn't really an issue the noise...we weren't unhappy in the city centre at all, it was just time for a change really... So yeah that was a disadvantage living in the city centre when there was all that building work going on , it did drive us crazy at times. But again it can't have bothered us that much because we would have moved otherwise.
(Claire)

This example provides insight into how people may decide to move in or out of the city centre. Claire explained how, while noise was an issue, it was not what led to her leaving the city centre. Her desire for new outdoor space is connected to a changing lifestyle, a desire for a different way of life, means that the tradeoffs had changed (Nathan & Urwin, 2005). As suggested earlier when people were asked what had prompted a move to the city centre it was generally for broader underlying reasons than for the facilities that may be provided.

This first section has explored likes and dislikes while highlighting different experiences for different people and that it is context dependent. Even a relatively small city centre like Sheffield has different locales which provide very different experiences. Exploring how these differences are related to other perceptions about the city and to personal biographies is the focus of the next section.

6.4 Difference among city centre dwellers

The interviews as well as highlighting common concerns highlight differences in experiences amongst participants.

6.4.1 Lifestyle or practicality

There was a distinction evident between people who were interested in the particular lifestyle that the city centre offered and others who living in the city centre as primarily a practical decision; they did not really have any attachment to the city centre and what it offered:

M: ... there are bits of it which I think are really good, but I don't kind of feel that close to it in terms of...needing it. I feel like I'm living centrally because people do go into town a lot and its easy for them to kind of drop in her, or because I sometimes have meetings here, so or I'm close enough to be able to walk to a café and meet someone, so I feel very connected to it in one sense... but I could live without it very easily, it is just pure practicality in that sense
(Mark)

H: I wouldn't say I was particularly attracted by the city centre itself, but yeah it's the location to work and like my friends and things
(Harriet)

It was suggested within the narrative of some participants that engaging in city centre lifestyle was something that was age appropriate. For example, an interviewee in her 20's constructs the importance of nightlife as appropriate at her age, while a man in his late 50s suggests that such a lifestyle is not aimed at him.

A: just easier to have a social life, when you're my kind of age
(Amy, 20s)

G: I think I'm too old to look at the lifestyle! (laughter)
(George, 50s)

However what is implied as lifestyle in these quotes is the nightlife that is available. Conceiving of lifestyle as related more to alcohol based entertainments is a narrow way of looking at lifestyle and it is arguably more about general desirability of living in a city centre environment. Thus the interviewees who mostly identified with a city centre lifestyle were not young people talking about nightlife.

R: it's almost as well, kind of, a belief in a way of living really, that I find those, those kind of long streets of houses where you can't go anywhere except in a car, you can't walk round the corner to a newsagent, you can't pop out for a pint of milk. I just don't like, and I appreciate there are lots of places in Sheffield we could have lived that have similar kinds of facilities because Sheffield's kind of unusual in a way in having lots of city centres really, errm, so, yeah its partly a kind of philosophy that's driven by a liking for that kind of more European way of living where you all live in the city centre rather than there's a dead city centre and everybody lives outside and commutes in..

(Rose, 40s)

S: I really like the idea of the city centre living, errm, I like the idea of lots of people living in apartments and kind of coming and going, probably to work and popping out for meals and popping out for drinks, errm, and I just like the whole idea of city centre living and the kind of loft idea and the modern kind of living as well, it just really, really appeals to me, yeah

(Simon, 30s)

This idea of the 'continental' or 'cosmopolitan' way of living was evoked by a few of the older residents and was connected to valuing the city centre and to creating a liveable city populated with outdoor eating and drinking which arguably constitutes lifestyle in the same sense as desire for 'nightlife'.

V: I mean wonderful coffee shops wherever you go now, we love that, cos we do that most days, if we are in the city, we go and have coffee, and yeah I think that's good, because it's more you know, Mediterranean style isn't it, sorry (corrects herself) continental style isn't it, its becoming more continental in that respect, because before where did you have to go, McDonalds or some crummy little pie shop!

(Vivien)

There were also people who arguably wished to construct a sense of distinction through their housing choices, conveying themselves as choosing more authentic places, for example conversions instead of the typical new build, and some presented themselves as earlier movers to the city centre, rather than following the crowd:

C: It's a lovely flat. This was one of the first of the city flat developments in Sheffield. I think it started the trend really, the conversion of these two buildings...We are the first though apparently so I'm told by everybody

(Caroline)

I: This is a very unusual conversion, it was the first in Sheffield, I think it was the very first thing they did for city living apart from social housing, erm, I think they were the first private enterprises, and even the guy that built it said they built them too big, but you know from our point of view he hasn't, because it's the only thing we'd seen that fitted the bill.

(Vivien)

6.4.2 Moving in and out of city

A second distinction that can be made between participants is their approach to the permanence of their city centre living experience and its relationship to the stage in the life

course and how this contrasts with suburban living. This incorporates understandings of who is meant to live in the city centre and the ramifications this has for people who did not fit in with this categorisation.

For some of the younger people in the study living in the city centre was a temporary phase, those who were 'city centre tourists'(Allen,2005), the city was a place that you would move out of if you wanted to 'settle down' or have a family. These ideas ranged from tightly planned to vague imagining of the future. However there was a wide-ranging belief that the city centre was somewhere you lived when you were young(ish) and without responsibilities and then moved out.

K: That's probably why you couldn't live in a high rise block and if I ever were to have my own house and family, why unfortunately like everyone else I would probably choose to go to the west of the city, just because it has the space and feeling of space it gives you and you know I think the calm is really important to a lot of people,
(Karen)

K: probably in the future I will move out to a more suburban area
(Kerry)

I: Would you say you intend to stay in the city centre?

L: I would say up to 5 years, at least while I'm younger, definitely, I think as soon as I start thinking about settling down and having a family I will be straight out of the city.
(Kate)

People appeared to have made a rational choice to be in the city centre and to leave it in the future. This was to some respects reflective of practical concerns about the safety of the city centre and the lack of outside space:

K: ... people who live around me have kids and they are playing on the road, I live on a cul de sac so its quite safe but that is their playground, you know, and I don't really want that for my children. I think whilst you're young and single, well singleish, you haven't got the responsibilities, errm as soon as I have that I probably will move out, definitely
(Kate)

S: And we've had friends round over the last couple of years wherever I've lived and they've said oh this absolutely fantastic, they love it, the adults this is speaking, but they've said we just couldn't do it because of the kids, you know. Cos you've got steps or stairs, risks of falling out of the high windows, you know, so I think it is, I think it, I think city centre living attracts a different age group definitely because its just not practical for children. Adults can kind of adapt to the situation.
(Simon)

Having children in the city centre was seen as an inappropriate choice and something that some people could not understand (of course this relies on the ability to have a choice and this is not necessarily the case if you are living in social housing).

C:but saying that, the block that we used to live in there were quite a few sort of couples with sort of very young children, which I thought phew, that's not the sort of place I'd want to have kids...there really is nowhere for them to kind of be outside, because we had a couple who lived next door who had a young child and also errm one on the ground floor, because the little girl always used to press the lift button, almost like the foyer is her playground, not very exciting really...all seems a bit of a shame, but then, you know I don't know what their parents agendas were, you know, what they were doing, where they were working, lifestyle choice I guess.
(Claire)

As well as the general assumption that they would not stay in the city centre if they intended to have children, there was an underlying view that it was inappropriate for all people and perhaps the suggestion in the above quote that people were putting their own preferences above the needs of children.

6.4.3 Experience of having children in the city centre

Amongst the interviewees there were only three people who had children living with them in the city centre and they had varied experiences which were certainly not mainly negative. However there was certainly an element from all three that they had to struggle against the stereotypical idea of the identity of city centre dwellers.

Facilities provided in the city centre including shops and other amenities were argued to cater for a narrow band of people (often those seen to be living the 'student' lifestyle, which was transient and lacking in commitment to area). For some people the areas in which they lived did not support family life in the way that perhaps they should.

*J: There should be, like I say a butcher, and a green grocer, a grocery store and err that kind of thing really, a fishmonger's would be good too... that would be a real asset to the city centre, and if they really want to stimulate city centre living that's what's needed for real people...there's obviously a number of people in West One and so on and so forth who are perhaps young professionals or something and aren't really in to cooking and families and kind of mundane stuff, but err, there is a growing proportion, I'm sure of families and older people ...not catered for at all
(John, 2 children)*

Even for people without families there was the expression sometimes of disappointment that local facilities were perhaps not as convenient as they had thought, for example in not having a good local shop, or not having a doctors surgery and indeed not having the right type of facilities.

The concerns that parents had could be conceptualised in terms of coming up against the conventional idea of who should live in the city centre. Rose presented herself as battling against the tide of opinion with regard to living in the city centre with her child. She felt she was struggling against peer pressure and general distaste for the idea of bringing up children in the city centre as well as pressure resulting from council and educational policies, which do not help families to live in the city centre. There was concern both for her situation in terms of whether she could stay in the city centre, even though she wanted to, and also the future and sustainability of city centre living generally:

*R: I'm worried about city centre, because I think the council aren't really going to grasp these nettles and unless they do I think it's inevitable that the city centre living will disappear eventually because, you know, it's hard work, you know, it's easier just to give in, and to go with the flow which is to move out somewhere where it's all set up in a nice white middle class.... you know I don't really want to move out, I like living here, but you know, it's not necessarily the easiest, but you know I can see the attraction of living somewhere where it's all set up, where you've got your own little way of being.
(Rose, 1 child)*

Louise had a different issue. She was living in council accommodation with lots of other families, however directly opposite her building new developments of student housing had been created which had changed the feeling of the area, and she felt that the students were inconsiderate to her lifestyle (for example through their noise and drunken behaviour).

L: so for all that so-called intelligence they're extremely insensitive and immature actually (upset/annoyed), I find some of their antics quite puerile and you know when you have to get up for work the next day, sometimes it's absolutely unbearable.
(Louise, 1 child)

The issue of 'studentification' of areas has become an increasing issue and likely to become more so in the city centre with students moving out of the suburbs en masse. For all three of the interviewees there was a presentation of self as battling the prevailing notion of city centre dwellers held most notably by the council and developers and evidenced in their planning policies which do little to create community within the city centre.

In contrast to the feeling of struggle above, for older people who had moved to the city centre at a later age, perhaps after having raised children outside of the city centre, the city centre was seen as a particularly beneficial place to be, with easy access to facilities and the enjoyment of the buzz of the city centre. Indeed the city centre could be seen as uniquely appropriate for older people in a way that the suburban environment may not be due to the close proximity of all facilities which could be especially welcome when perhaps people are less mobile.

V: I think as you get older, you have to look ahead (living in city centre), you can get to M&S, even if you were in a wheelchair you could get to M&S and Fargate you've got some sort of a life, but you know, when you are stuck out in Cheshire, beautiful garden you might have, you might be in the leafy suburbs, you're stuck!
(Vivien, 50s)

The lack of maintenance and the relative ease of looking after a city centre property was also highlighted:

C: Well its perfect to live in a flat, well, my legs aren't failing me yet, but they probably will one day!(laughs) Its ideal, and you don't want the responsibility of gardening and things – well I don't!(laughs).
(Caroline)

6.5 City centre community

The city centre was generally deemed to be lacking in a community feel. We saw previously how this lack of community spirit was reported in the questionnaire, with more than 60% perceiving there was no community spirit in their area. This was something that was generally contrasted in some people's interview narrative with suburban environments and was seen as generally something essential about city centres, particularly for 'city centre tourists'.

For example Pete who had recently moved from the city centre to the suburb of Walkley:

P: I suppose living in a suburb you feel a bit more responsible...but you feel a bit more part of the community and a bit more responsible for the upkeep if you like and community spirit and all that sort of thing. It's the first time I've had neighbours and so it's sort of saying hello to them and stuff like that. ... (in the city centre) you feel like you are one of thousands of people coming in, coming out, all the time.
(Pete)

Some people living in the city centre viewed lack of community as something which is not important and that community can be gained in a non-geographical sense (Nathan & Urwin, 2004), including friends from other areas and work colleagues.

K: I think also my community of friends is outside of a geographical location so actually being here in some ways didn't influence the friends that I've made.
(Karen)

K: I think it is a community but I would say there is an ethnic community, and its probably not a community that I would naturally fall into, basically....you have a community at work, you know I socialise a lot with people I work with so, I suppose I get that community feel from there rather than from home life.
(Kate)

In contrast some residents expressed disappointment that there was not more community in their part of the city centre:

S: In this building there are only twelve flats, so its much more, kind of, I was going to say community, but this hasn't really happened which is a shame, most of the flats are rented and so there's quite a high turnover of people coming and going, which is not what I was wanting I was kind of liking the idea of being in a small community...which hasn't really materialised.
(Stewart)

I: Would you say there's a community feel in your local area?

K: err, no, no absolutely not (very adamant), I guess that's going back to one of my negative things, certainly in the flat I very rarely see the neighbours or I just don't know people... if there is a community going on there I don't really know about it!
(Kerry)

This somewhat surprisingly included people who did not have long term plans to stay in the city centre, which perhaps suggests that even if people are living in an area for a short time it does not mean they have no regard for the community around them. However there was a general assumption from the majority of interviewees of the acceptability of this lack of community –it was perhaps one of the tradeoffs they made in living in the city centre

Despite this, it should not be assumed that there was no element of community within the city centre. For example, for a couple of people who lived in social housing there was a feeling of community within their particular buildings or blocks, which often was vividly contrasted with the area outside:

I: You mentioned community; do you think there is a community in this (block)?

K: definitely...I don't know if you get such a community over on West One.... I know my neighbours names. I go to a local church which is across from here across the green and actually that is very convenient, I feel like I belong here...I feel this is kind of my hunting ground, my stomping ground (laugh), you know what I mean?
(Karen)

This sense of community within the accommodation building was contrasted particularly with private developments. This is echoed by Louise who contrasted the family-friendly community within her flats to the behaviour of students who were transitory and perceived as not interested in putting down roots and also not considerate to the needs of the established community.

L: If you look at the kind of people who live on this estate, they're from all sorts of walks of life and all different cultures and it works, and I'm sure it's because, errm, there's everybody and you know there's not one kind of monopoly on any kind of culture, or a belief system or whatever else, whereas when you see all these (students) here, who say lets all go out and get pissed it's Thursday night, because we don't have anything to do tomorrow. And, I think they forget that families live here and you know we have children, and the children go to bed at nine o'clock or earlier and that we have to get up for work the next day.

(Louise)

In this sense the council communities are contrasted with the transient and lack of community spirit outside of these communities. In fact this may bear some relationship with the quantitative research where people in the council accommodation appeared proportionately more likely to believe there was community spirit in the city centre in comparison with private rental where the opposite was true.

The design of city centre flats and communities generally were often deemed to support a particular individualistic lifestyle within the city centre, encouraging a particularly homogenous city centre population.

K, I just think living on your own in a big block of flats it makes loneliness and actually the creation of more and more flats in a city centre.... all you've got to do is live to work, to be in a city, go out, get drunk.

(Karen)

R: it's this weird fantasy of sort of all these yuppies, that's a 1980's phenomenon and we're now 25, 30 years later and nobody wants to live like that, this kind of fantasy of the yuppie living in a city centre flat and drinking champagne, it doesn't exist

(Rose)

The council and planners of the city are seen to have little idea of the needs of diverse people living in the city centre and to have a stereotypical view of city centre dwellers which mostly corresponds with 'city centre tourists', although perhaps even more extreme. This makes it difficult for families and other people who do not fit this profile to live in the city centre. It was often also related in economic terms to the desire for private developers for profit with little regard for any social consequences.

C: they're all tiny flats so it ensures that there's always a turnover of people, because they've not got the space in the place... So there's a continuous turnover... I think the planners believe that nobody over the age of 30 would want to live in the inner city, but they are wrong!, the whole of this frontage on this building the people are all settled, some of them with children and it suits them perfectly.

(Caroline).

J: I think they are short sighted really, its nothing to do with community, you know it's not like, families can't live in luxury flats can they? and there is no sort of social element I think about it... its just a money making thing really

(Jane)

The homogeneity of the developments within the city centre was something that people objected to, and felt should be changed, by providing housing and facilities that catered for various groups including families. This was seen not just as good for those families but to create a more stable and pleasant place in which to live for all people:

G: ... if you've got a broad range, a spectrum of people, it makes for better living anyway... monoculture have never been good for nature and I don't think that its good for humans either.... you know this would be a hall of residence if the students took it over, you know, an expensive one at that, but if there was a fair range of people of different sorts and each influenced the other and moderated the behaviour
(George)

For people living within private developments such as those constructed as lacking in community, there was also a preference for diversity amongst the residential population. Thus while people may construct certain new development such as West One as lacking in community and full of transient people with little regard for the city centre; there are people within these developments who are as desiring of difference as those within older social housing developments.

6.6 Development of the city

The development of the city was a significant issue within the interviews and there was much discussion of the changing appearance as well as feel of Sheffield and the city centre in particular, often from people who had lived in Sheffield during changes. This incorporated all aspects of the changing city. There was a general optimism; although not quite universal, in the fact that Sheffield was moving away from its industrial identity towards a new identity which stressed its role as a safe and green city.

It has been observed how the development of many flats within the city centre was seen as problematic by some on the basis of community (or lack thereof, that they were seen to promote) and the general development of the city in favour (it appears to some) of a narrow demographic of young and single people. Residential and office developments were also frequently criticised due to their bland and unattractive appearance and dominance over older and existing buildings as well as open and public spaces. There was also the question of considerable disruption due to building work.

M: ...living this close to all the work, it feels like a war zone when you walk through, feels like it's kind of falling apart rather than being rebuilt and I think I've found that wearing, and I think, because I don't like a lot if it I kind of think its annoying and a waste of time...If you thought it was going to be a wonderful transformation than that would be fine, you'd put up with it. But I think some of the stuff is great, but it still feels like the lowest common denominator of cheap buildings in the most part.
(Mark)

This quote by Mark highlights the basic element of how people perceived development, if they perceived it was worthwhile for them then it was seen in a positive light; this was not the case for much residential development in the city centre. Certain buildings were often highlighted as particularly negative – perhaps signifying broader concerns about the danger of overshadowing other space and the idea that development was ‘out of control’. For example, the building of the ‘tallest building in Sheffield’ and the ‘aluminium covered car park’ attracted considerable comment and controversy.

While people who could be classified as ‘city centre tourists’, who tended to live in the newer residential developments disliked by others, did not exhibit such concern about their social or aesthetic impact; the fact that large amounts of flats were being built had the prospect of devaluing their own flats and making it more difficult to sell.

K: I bought my flat so I'm kind of a bit concerned in terms of there seems to be a hell of a lot more flats going up, in the local area, so that sort of worries me but there seems to be so many and as and when I want to sell mine whether I'll be able to do that...but it seems Sheffield is an up and coming city really and its kind of nice to see the development.

(Kerry)

H: I desperately don't want them to overdo it like they have done in Leeds.... I just don't want the value of my flat to go down... I just think they need to stop when they know there's enough,...People like to scaremonger me that 30% or higher of the flats in Sheffield are empty.

(Harriet)

It would be a mistake to suggest that all the residential and building development is viewed negatively, as well as some reservations about residential development, it could be seen to improve the run down appearance of the city, and just the general fact that the city was being developed was seen as a good thing for some.

S: I'm continually amazed at the new developments going on in Sheffield.... Everywhere you seem to look there are new places going up, and I think it's a good thing because its giving opportunities to people to live in the city centre, which at one time it was kind of never heard of!...I think it will be a really smart city.

(Simon)

K: It needed regenerating, I mean round where I live, there's still quite a lot of warehouses and factories that are evidently vacant now and so, and they are unsightly and they do attract probably people to hang around, but yeah I think the city centre itself is really nice and really accessible.

(Kate)

While there were mixed feelings about the buildings going up in the city centre there was a strong positive feelings about the landscaping development of Sheffield. People showed great enthusiasm for the development that they had witnessed. Areas that were particularly singled out included the train station and surrounding area; the Winter Garden and the Peace Gardens, all of which added to the appearance and feel of the city.

A: I do like that walkway up from the station..., I like the way it leads you up....and I love what they've done with the station, that's like a big open space with all the fountains and stuff, I think that's really nice.

(Andrew)

G: I think, well, Sheffield has had to reinvent itself since the steel industry collapsed. And one of the ways it has done this is to make it a 'nice' place to be... you've got the Peace Gardens and the Winter Gardens. They make it a pleasant place to come, so even if people are not using that place extensively it means they come to Sheffield and they spend their money... I think the green spaces contribute to that, I think they contribute to the general well being of the city, I think it feels like a good city, a nice place to come to.

(Gail)

As the quote from Gail asserts, open space in the city centre presents a positive image of Sheffield; by providing places for people to sit and generally making the area look attractive.

they are helping to transform the image of Sheffield from a grey and industrial image to a vibrant and green image.

C: the city centre has changed dramatically. But I think like the Winter Gardens and the Peace Gardens where they were, there was the ugliest council buildings in the world! Oh god they were awful! I think they've done that so nicely and all that around the train station and up towards town I think is really nice. I think they're done that really well and some of its quite modern, but somehow it fits in, it works quite nicely, and I know obviously the new retail quarter bit is going to be happening again soon, which I think they're going to be doing that in a similar style to how they've done from the train station. I don't think that will be a bad thing at all, but I do think the high rise buildings will spoil it to some extent.

(Claire)

Claire sums up the feelings about how Sheffield has transformed for the better and the role that open spaces play in that, but also sounding a note of caution in the danger of other buildings overshadowing these developments. This is echoed by John and Kate in their strong praise of landscaped areas but dislike of certain buildings within the city centre which negatively impact upon the appearance of the area.

J: The new car park... Yeah we don't need that really, that's a waste of space, its a bit of a blot on the landscape architecturally... but you know other buildings are fabulous, the Winter Gardens will be now lost behind the ... development which is a shame because its beautiful! The Peace Gardens, where the big silver balls are, the fountains, you know, walk through Sheaf Square to the fountains, fabulous, really stunning, world class kind of place, which is good, it feel good to be here.

(John)

K: although they have put up a horrible car park, near Arundel gate... I think you always get some you know wacky designer who's out there and thinks ooh this will look cool and you know it might look good on paper, but when you've got it in the middle of the city, you're like hmmm...but I think as a whole I like the look of the city centre, and I like how people have particularly used the old buildings to regenerate rather than knock them down, and build new, I think the Peace Gardens and the Botanical Gardens are really lovely.

(Kate)

6.7 Key findings

- The Questionnaire respondents were evenly mixed between male and female, were predominantly white and the majority were under thirty five.
- People generally lived in flats and the majority have lived in their current accommodation for a short amount of time, people were mainly childless and often lived alone.
- General convenience and less so the vibrancy of the city centre were considered principal advantages of living in the city centre. Noise and traffic were raised as concerns; safety was less of a concern although there were particular issues raised in this regard
- Despite common agreement over the general positives and negatives, there were differences amongst people in their commitment to the city centre and their feelings about the desirability of city centre living.
- Issues of community and the development of the city were significant as possible areas of contention amongst city centre dwellers and between residents and the city council.

Chapter 7 Green Space Usage

K: Because I don't drive I think that influences my usage, having to be more local, when I drive I'll be out in the peaks, you know, I find it frustrating sometimes that I have to walk a fair way to get to a decent size green space.

(Karen)

Quantitative research was particularly useful at eliciting broad understanding of patterns and particularly of how and in what way people use green spaces. This is supported by interviews which allow us to understand particular usages of space by in some respects 'fleshing out' the quantitative findings. However the interviews additionally highlighted different aspects from the quantitative results in the ways that green spaces may be used by residents of the city centre and how people understand this usage. This is manifested in the different degrees of integration in the presentation of results. Qualitative data generally assumes a greater role in the following two chapters, which deal with the potential benefits of green spaces and how people perceived green spaces.

The first part of this chapter explores the general usage of city centre spaces; initially in 7.1 using the results of the questionnaire; which suggest particular patterns of usage and secondly in 7.2 which primarily presents interview data, providing detail and further insight into such experience. 7.3 combines the presentation of qualitative and quantitative data, affording an understanding of the variation of the usage of green space. 7.4 examines the usage of green spaces for physical activity, while 7.5 examines what other activities people use spaces for and how this relates to frequency of usage. 7.6 examines how personal and background characteristics are related to various aspects of usage of space. Sections 7.7- 7.9 explore whether there are any differences in usage according to different circumstances; in 7.7 whether there are children in the house, 7.8, who people visit with and 7.9, whether people have different forms of outside space.

7.1 General city centre green usage: quantitative

This section explores general patterns of usage of green spaces

Frequency of usage

There was a considerable amount of variation between different categories of usage (Figure 7.1). While the largest group visited a few times a month, there were significant numbers in all categories.

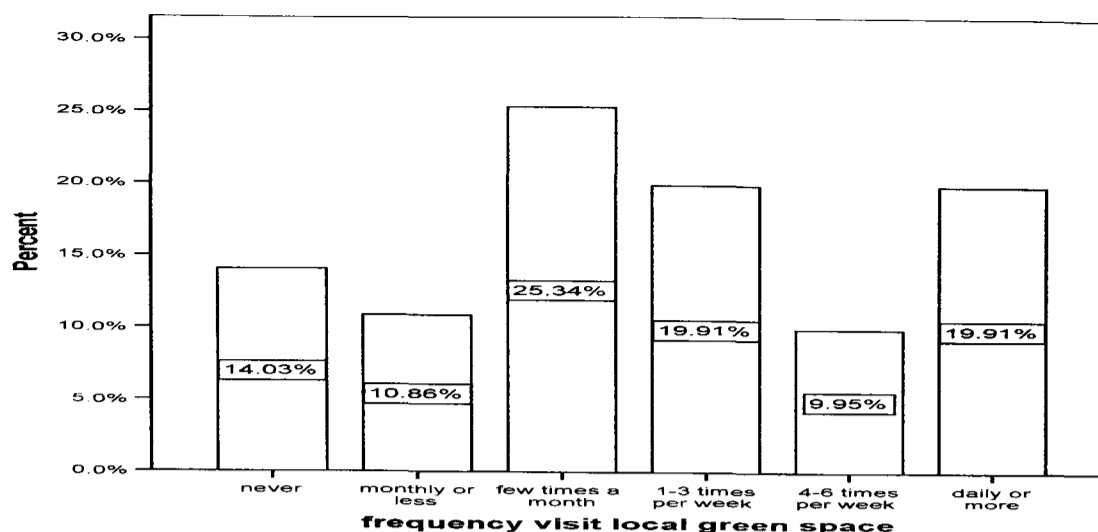


Figure 7.1. Frequency of visit to local green space

Local spaces used

Devonshire Green and Peace Gardens are the green spaces within the ring road and were most used, with around 2/3 of users indicating they used these. Botanical Gardens and Weston Park were the next most used, used by over ¼ of the respondents each (Table 7.1).

Table 7.1. Green spaces used and which spaces were used most often

Green space	No of people that use (%) *	No who use most often
Devonshire Green	126 (65)	54 (30)
Peace Gardens	128 (66)	49 (27)
Botanical Gardens	64 (33)	11 (6)
Weston Park	53 (28)	10 (6)
Crookes Valley Park	30 (16)	8 (5)
Norfolk Park	12 (6)	5 (3)
Gell Street Park	11 (6)	0
Ponderosa	8 (4)	3 (2)
Cholera/Clay Wood	5 (3)	0
Others	59 (31)	32 (18)**

* % calculated in relation to the users of green spaces, non-users are not included.

**includes combination of different spaces

Activities and reasons

The most common activities performed in green space were 'walk for pleasure' 'walk for transport' and 'sit and relax'. Other important activities with over 10% of respondents included: to meet/socialise with people, jog/run, observe wildlife/greenery, picnic and watch/play with children. Other reasons most cited for use were 'for fresh air' and 'to relax/reduce stress.' Other significant reasons cited by over 20% of respondents included: 'for peace and quiet', 'to escape from home', and 'to be in nature' (Table 7.2).

Table 7.2. Activities undertaken and reasons for visiting green space

Activities in green space	Number of people (%) *
Walk for pleasure	114 (59)
Sit and relax	106 (55)
Walk for transport	89 (46)
Meet/socialise with people	48 (25)
Picnic	32 (17)
Observe wildlife/greenery	31 (16)
Jog/run	25 (13)
Watch/play with children	20 (10)
Organised activities	18 (9)
Other activities	15 (8)
Walk dog	12 (6)
Other sports	12 (6)
Cycle	8 (4)
Skateboard	3 (2)
Other reasons for visiting	Number of people (%)
For fresh air	102 (53)
To relax/reduce stress	85 (44)
For peace and quiet	57 (30)
No other reason	49 (25)
To be in nature	56 (29)
To escape from home	44 (23)
For beauty	35 (18)
To escape from city	35 (18)
For inspiration	28 (14)
Other reasons	19 (10)

7.1.1. Green space used most often

In order to gain a greater understanding of how people used spaces; the questionnaire asked people to think of the green spaces they used most often and to answer a series of questions referring to this green space. While people were asked to only indicate the one green space which they used most often; some people indicated more than one as they perhaps felt that they used them equally.

Spaces used most often

By far the most frequently used green spaces were Devonshire Green and Peace Gardens, with over ¼ of people for each indicating they used these most often (Table 7.1). Other green spaces with significant usages included Weston and Crookes Valley Parks, Botanical Gardens, Gell Street Playground and Norfolk Park all with five or more people saying they used these most often.

Frequency of usage for green space used most often

The largest group used this green space one to three times a week, closely followed by a few times a month though there was considerable variation (Figure 7.2).

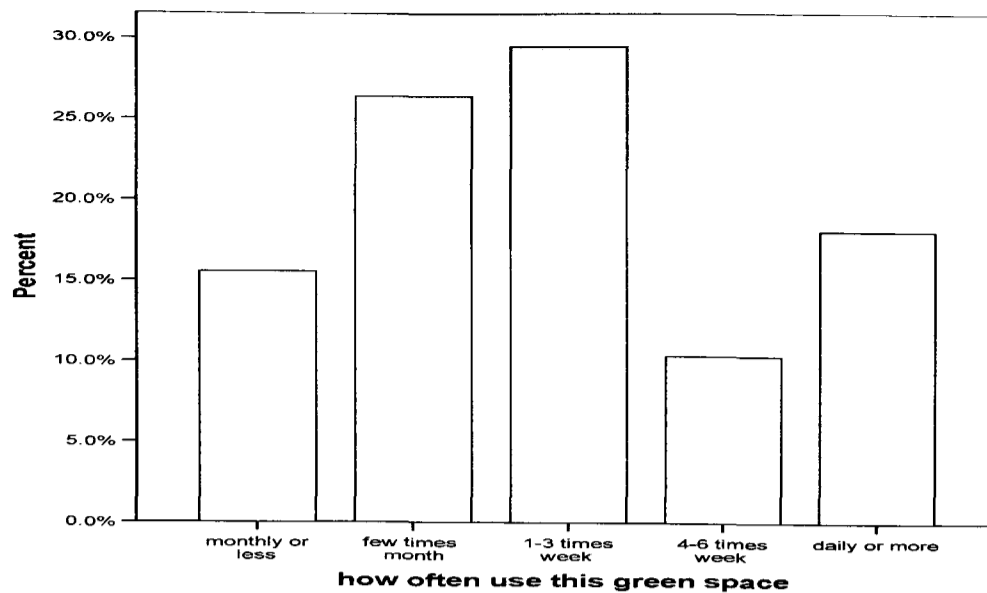


Figure 7.2. Frequency of usage for green space used most often

Mode of travel to green space

On foot was by far the most common form of transport with over 85% indicating solely this method (Table 7.3). This was to be expected as people were asked about local green spaces, within walking distance of fifteen minutes. This also reflected the most used spaces being within the ring road meaning residents would be reasonably near to them.

Table 7.3. Mode of travel to most used green space

Mode of travel	Number of people (%)
On foot	168 (87)
Cycle	1 (1)
Car	5 (3)
Bus	1 (1)
Wheelchair	1 (1)
Foot & cycle	4 (2)
Foot & car	6 (3)
Foot & bus	5 (3)
Bus and tram	1 (1)
Foot, car & bus	1 (1)
Foot, car and tram	1 (1)

Travel Time

Over half of people took less than five minutes to visit their most used local space, and over 80% took ten minutes or less (Figure 7.3). Less than 5% of people said they took longer than fifteen minutes to visit their most used local green space.

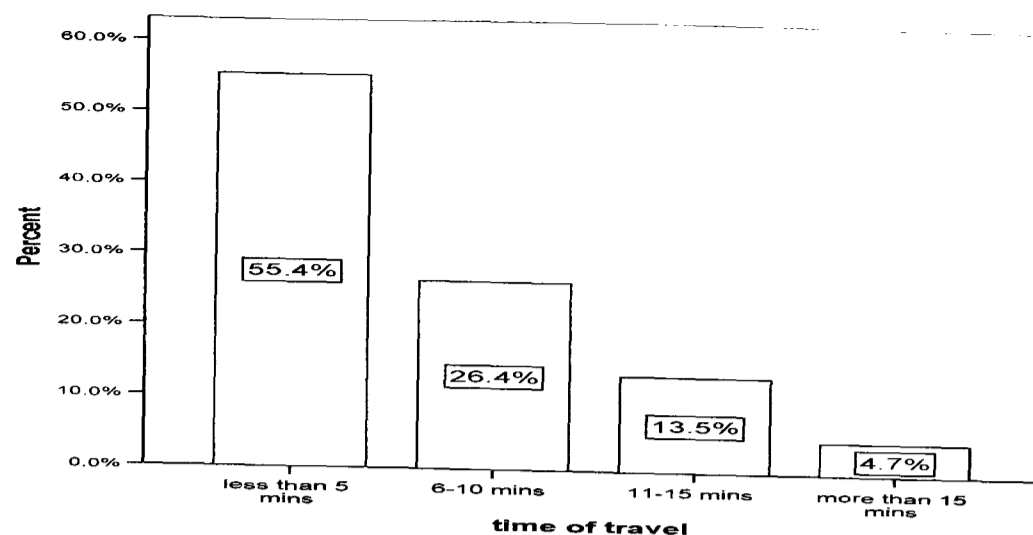


Figure 7.3. Travel time to most frequently used space

Length of stay in local green space

'Passing through' was the most popular option, followed by staying thirty minutes to one hour (Figure 7.4). Nearly 60% of people would therefore typically stay less than thirty minutes and 87% of people would stay less than an hour. Only 3 % of people would typically stay in the space they used most often for two or more hours.

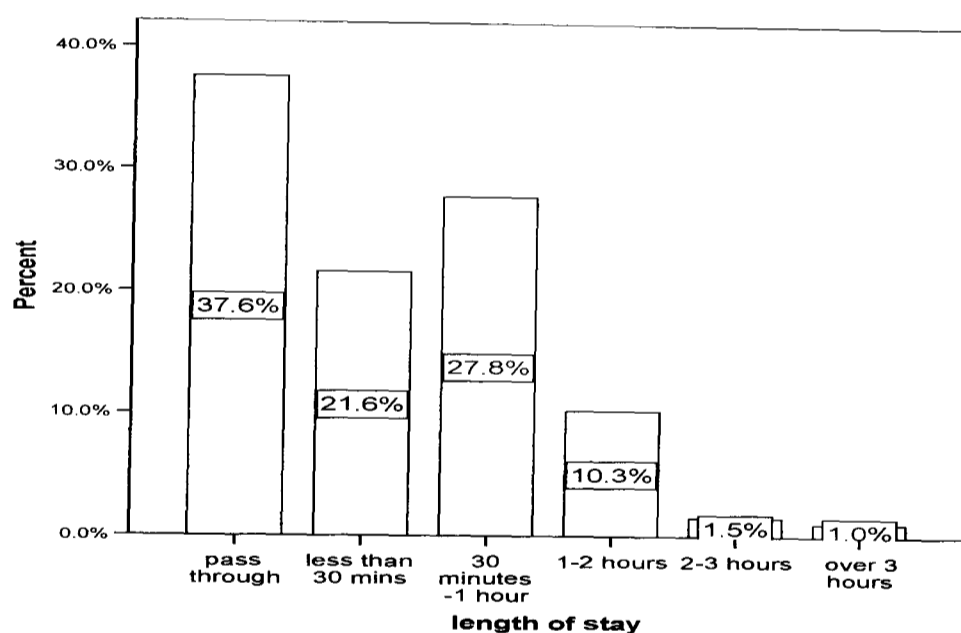


Figure: 7.4. How long people stayed on a typical visit in most used space

Company in a typical visit

Using green space alone was the most common answer. Using with friends and spouse/partner was also common to around 1/3 of people each. Less people used them with children, although this reflected the fact that few people had children resident in their house. (Table 7.4)

Table: 7.4. Company in a typical visit to this green space

Who use with	Number of people (%)
Alone	132 (68)
Friends	72 (37)
Partner/spouse	71 (37)
Children	23 (12)
Others	6 (3)

Frequency of visit to non-local space

Green space further outside the city centre was generally visited less than local green spaces (Table 7.5). Only a very small minority visited non-local spaces more than three times per week, compared to 30% for local green spaces. Visiting monthly or less or a few times a month, were the most frequently ticked options with over 70% of people. Less than 14% never visited non-local green spaces, which was almost identical to the number who never visited local green spaces.

Table 7.5. Frequency of visit to non-local green spaces

Frequency of visit	Number of people (%)
Never	31 (14)
Monthly or less	93 (42)
Few times a month	65 (29)
1-3 times per week	25 (11)
4-6 times per week	4 (2)
Daily or more	3 (1)

Section overview

These results suggested that there was variation in usage of green spaces, however some patterns emerged. People tended to use the space in the city centre ring road more frequently, the Peace Gardens and Devonshire Green, although there were many other spaces that were also visited. People generally did not stay in their 'most used space' for a long time. Results indicated the vast majority of visits were for less than an hour on average, with 'passing through' being the most common option. They also did not take long to visit; less than five minutes was the most frequent option, which was reflected in the proximity of the spaces used. People visited spaces with different people although visiting alone was the most common usage. These findings reflected only the most used space, it would be expected that findings would be different if all spaces were considered.

7.2 General usage of green spaces: qualitative



Figure 7.5. Walking in Botanical Gardens

7.2.1 Defining green space

This section briefly highlights issues around defining green space that have been evidenced through the conduct of this research. The need for definition recognises that green space means different things to different people, including research communities and for the general public; something which is not always discussed in other research. For the structured element of this research, definitions were kept broad enough for people to be able to include as many, or as few, spaces as they wished (see Chapter 4). However within the interviews people were asked what they thought of as green space or understood by the term. While there were many different views which demonstrated the importance of defining what counted as green space; there were specific areas around which contestation revolved that help to provide understanding of what people believe are important elements for a place to be a 'green space'. In addition there was generally the view that the term 'green space' was not generally utilised by the interviewees themselves although it did generally have some meaning for them.

One area where there was contestation for example was countryside as opposed to urban spaces and whether both are classed as 'green spaces' or not. This can easily be resolved by adding 'urban green space' to make sure the distinction is clear. However it was apparent from discussion that some people did not automatically make a distinction between countryside and urban green space, while for others the 'naturalness' and presumed permanence of countryside contrasted to the manmade nature of urban green.

I: Would you call the countryside a green space?

C: yeah, I suppose I would really (pause) I mean the right to roam and everything like that, you can go and use pretty much anywhere you like now, errm but yeah I suppose countryside is the ultimate green space really, I don't know whether I would have termed it green space but it is the same thing in my head, it'd the same kind of usage, so it's the same think yeah (Claire)

S: umm, no not really, I think the countryside is the countryside... I think green space to me is manmade rather than a natural thing.... The concrete is put there, the framework is put there you know the benches are added the trees are added, the grass is added, the water is added its all added. Whereas the countryside it's all there and it's always been there.

(Simon)

Whether a space is officially designated and defined as a green space was important for some residents in their categorising of it as a green space; and consequently the extent to which they felt it was a usable space. The amount of greenery was also an additional point of conjecture. For example, for some residents it was the predominant character which would perhaps accord with official definitions; however for others green spaces and open or public spaces were broadly interchangeable and it was more the leisure based nature of the space rather than the amount of greenery.

G: I actually think of green space as any kind of open space that can be used for any type of leisure really it doesn't necessarily have to have grass in it, but I do associate green space with open space public seating area that's my perception of green space just outdoor space where you can sit and that's my view

(Gail)

*C: Well I would say even though it's not really green and there are small areas of grass but I would say it's green space because it's kind of communal and it's sort of nature and there's grass that you can sit on and people can go and sit on the grass and what have you and there's the kind of plants around in the town hall, so I would consider that green space, yeah, even though it's mainly concrete
(Claire)*

Other areas of interest included the 'publicness' of spaces and whether it was officially designated for people to use. Generally among interviewees being able to access a green space was important both for definitions and also for its value; although the importance of being able to view inaccessible spaces as well as being valued for environmental reasons were also recognised. This section has provided a brief flavour of the different understandings people may have of the term green space. Throughout the following chapters the differences and similarities of spaces that may fall under the umbrella green space will be stressed; while using the term green space to indicate any green areas of interest.

7.2.2 Usage of green space

A broad echoing of questionnaire findings was found in the interviews, with people recounting a variety of experiences and activities that they did in green spaces, including social and solitary activities. Perhaps the most striking theme that emerged from the interviews, and echoing the questionnaire; was the integration of green spaces within everyday life of the city. Spaces were used during the course of daily activities.

*S: I think if I walk past a green space I tend to use it there and then, rather than think oh 'on Saturday I'm gonna go and sit in the Peace Gardens for an hour', it just kind of happens depending on what I'm doing at the time.
(Simon)*

*M: I tend to go shopping on Eccellsall Road, probably about once a month. I tend to wander through (Botanical Gardens), and it's another place that people want to go if they come and visit and also it's a kind of place that's quite nice to sit around in, if it's open.
(Mark)*

While people varied in the extent they used spaces in the city centre there were two common themes in how people used city centre spaces, and to some degree those broadly outside the city centre; these reflected the short time people stayed in green spaces generally and the short time taken to get to the spaces, as indicated in the questionnaire.

7.2.3 Walking through space



Figure 7.6. Walking through the Peace Gardens

Firstly they were used as places to walk and usually to walk through. Perhaps this involved stopping for a little while but generally it was on the way to somewhere else.

S: I don't often go to Graves park but I was there the other week, it's mainly Devonshire Green, well I walk through there rather than stay there.

(Stewart)

A: Somewhere to walk through, yeah, rather than actually sit there and hang around.

(Amy)

J: Mainly walking through, have I ever been to sit there (talking to self), no I don't think so. If it's a nice sunny afternoon here and we just want to read a book or something, we'll go to the quad here in college.

(John)

People were often not specifically going out of their way to visit green spaces, and it was incorporated into their everyday life activities. For some however, there was the notion that they made the effort to find a 'green route' when walking to particular places, meaning that they would make a conscious choice to walk in or across parks and spaces as this was seen as preferable to being on the streets.

S: Even if I'm just passing somewhere, I'll try and do a route that walks through the Peace Gardens or through Devonshire Green

(Simon)

C: I go through something like a bit of parkland, you know probably once a week. I have a cousin who lives up in Fulwood and I always go up on the bus up there and then I walk back down through Endcliffe Park to Hunters Bar and catch the bus down there its very pleasant.

(Caroline)

The questionnaire options asked about walking for pleasure and walking for transport to enable a distinction between walking specifically around or in the space (for pleasure) and simply walking through it (for transport). The interviews suggested that such a separation may not reflect real experiences; as people obtained pleasure from walking through the space, even if it was not a 'destination' as such. Therefore just because people did not stop for long in a space, this did not mean they did not enjoy them.

G: I mean I sometimes go out that way just so I can walk through it... You know it maybe not the fastest way out, but it's a nice way to go out.

(George)

K: especially if I'm walking to Walkley or Crookes I'll try and pick a greener route, a nicer way to get there.

(Karen)

The notion of a green route also incorporates small elements of green, not simply discrete spaces and people valued having green streets which created pleasant places to walk in.

C: I quite often walk to work down Weston Road and it's really nicely tree lined and it does feel really leafy and I don't know, it does have a different atmosphere to it, it's strange, but I guess it just kind of breaks the monotony and makes it feel sort of sheltered and feels quite sort of opulent in a way, sort of luxurious.

(Claire)

G: Trees planted down either side, those are lovely for walking under and must perform lots of good functions.

(George)

7.2.4 A place to stop

The city centre spaces as well as providing somewhere pleasant to walk through, may provide a space to stop and often relax. It was observed that 'sitting and relaxing' was the most common activity for questionnaire respondents after the walking activities performed in green space. For many of the interviewees this also involved social activities, meeting friends, perhaps playing games and having a drink or having lunch. Particular spaces were more likely to be used for different activities depending upon their facilities and location. For example, Devonshire Green and Crookes Valley Park both had bars within very close proximity and were places that people would stop for a drink.



Figure 7.7. Sitting in the Peace Gardens

The notion of a 'break in the day' can be utilised here as many people who worked in the city centre welcomed city centre spaces as providing a space to get out at lunch time to sit and have lunch or a drink and to get away from the work environment. Again the spaces were used for a short amount of time in a day but often regularly as it became an enjoyable and sometimes

social habit to sit outside on the grass with colleagues or on their own. People also used green spaces for short periods while shopping and visiting certain areas.

A: I don't really use them just to sit, although I know some people do.
(Andrew)

L: Crookes Valley Park, I adore the lake and the Dam House is beautiful. You can sit with your cappuccino and your chips and dangle your feet over the edge, you know, it's really a nice space to picnic in, or just watch the elderly play bowls.
(Louise)

S: I used to go and sit there if it was sunny and have a sandwich or something, usually with colleagues, we'd get a sandwich and go and sit and have it but most of the other spaces I just tend to walk through or walk past, but the Peace Gardens is an area that I make a beeline for, to sit if I've got some time and I just want to sit down.
(Simon)

There were other usages of green space and especially those spaces outside the immediate city centre. Green space could be places to spend time with friends and family and to socialise, perhaps at organised events. These were generally welcomed in the city spaces as providing extras activities and enjoyment in the space. They were places used for exercise and sporting activities for a minority of the interviewees.

7.2.5 Importance of proximity

The proximity of spaces was an important indicator of whether people used them regularly in day to day life, supporting the results from the questionnaire. People recounted stories about using a particular green space because they were nearby their homes or workplaces. For example, Claire and Pete who had recently moved out of the city centre had totally changed their usage of green space after moving out.

D: Weston Park is quite far away so walking there is quite inconvenient.
(David)

P: I don't know about favourite but most likely to spend time in was Crookes Valley Park....., it probably would have been closest to where we were living at the time.
(Pete)

Proximity did not indicate quality of space and many people while valuing small city spaces, were concerned about their ability to access spaces that were further a field.

C: right in the city centre there really isn't anywhere that you can go and sit out on the grass and that was kind of what we missed last summer.
(Claire)

S: I love the Peak District, I don't get out there walking as much as I'd like.
(Stewart)

The Peak District, in particular was a place that some wanted to be able to access more often but were unable to, due to lack of time and difficulty of access, particularly for those who did not have access to public transport. The difficulty particularly stressed for those without cars in getting to the Peak District prompted a further analysis of questionnaire data to investigate if having access to a car was related to the frequency wider green spaces was visited.

7.2.6 Association between visiting non-local green spaces and access to car

There was a significant difference between people with access to a vehicle and those without in frequency of visit to wider green space. (MWU: $U = 4053$, $z = -3.968$, exact $p < 0.001$), mean rank: yes = 123.53, no = 90.59. This suggests that people with access to a car visited more frequently than people without. This was supported by the cross-tabulation below (Table 7.6) (Chi Square = 9.411, $df = 2$, $p = 0.002$)

Table 7.6. Association between visiting non-local green spaces and access to car/vehicle:

	Never Visit green space Actual (expected count)	Visit green space Actual(expected count)
Access to car	11 (18.7)	122 (114.3)
No access to car	20 (12.3)	67 (74.7)

Spaces further afield which took more effort to get to were visited generally on a less frequent basis although this did not diminish their importance. The Peak District was a particular destination for many, yet there were some people who did not visit very often or at all because of the difficulty they had of getting there. The importance of quality public transport to enable people to get to the larger suburban parks and the Peak District was evident.

7.3 Variation in usage of space

A striking theme from the interviews was how diverse people perceived green areas to be and how often they used them in different ways at different times – talking about ‘green areas’ or ‘green spaces’ in a generalised way may be slightly misleading in the sense that it conveys the impression that all green spaces are the same. This prompted further analysis of the questionnaire data to explore how people used the space that they used most often individually to see if there were general differences amongst the green spaces, for example did people stay longer in certain spaces?

Of course because the selection was for the most used space; this does not convey a picture of how all people use the spaces – a distorted picture may therefore be obtained; however it is useful to see how the different space may be used.

Frequency of usage for space used most often

The vast majority of people who used Devonshire Green most often, used it at least once a week and nearly 30% used it daily or more (Table 7.7). There was a similar usage of the Peace Gardens although there were far fewer who used the space daily. The stark difference in numbers can be seen between these two spaces and the Botanical Gardens which was the next frequently used space. This was firstly in terms of there being fewer people who used the Botanical Gardens most often and secondly in how they were used by those for whom it was the most frequently used space: none visited more than 3 times per week.

Table 7.7. Frequency of usage for space used most often

	Devonshire Green No (%)	Peace Gardens No (%)	Botanical Gardens No (%)
Monthly or less	6 (11)	6 (12)	1 (10)
Few times month	9 (17)	16 (33)	5 (50)
1-3 times week	18 (33)	18 (37)	4 (40)
4-6 times week	5 (9)	5 (10)	0
Daily or more	16 (30)	4 (8)	0
Total	54 (100.0)	49 (100)	10 (100)

Mode of transport

For Devonshire Green and Peace Gardens over 90% visited on foot and 70% the Botanical Gardens. This reflected the greater distance of the Botanical Gardens from the city centre.

Travel Time

The short time travelled to the spaces, particularly Peace Gardens and Devonshire Green indicated the importance of proximity for frequency of usage with the vast majority in using those two taking less than five minutes to get there. For Botanical Gardens people generally took longer to get there; again most likely because of the further physical distance from their home (see Table 7.8).

Table 7.8. Time of travel

	Devonshire Green No (%)	Peace Gardens No (%)	Botanical Gardens No (%)
Less than 5 minutes	42 (78)	30(61)	1(10)
6-10 minutes	9 (17)	14 (29)	5 (50)
11-15 minutes	1 (2)	5 (10)	4 (40)
15+ minutes	2 (4)		
Total	54 (100%)	49 (100)	10(100)

Length of Stay

There were greater differences between green spaces in length of stay in the space. For example over 2/3 of people passed through Devonshire Green compared to less than a quarter of visitors to the Peace Gardens. Only one person whose 'most visited green space' was the Botanical Gardens simply passed through (see Table 7.9).

Table 7.9. Length of stay

	Dev Green No (%)	Peace Gardens No (%)	Botanical Gardens No (%)
Pass through	36 (67)	14 (29)	1(10)
Less than 30 mins	7 (13)	19 (39)	6 (60)
30 mins-1 hr	7 (13)	15 (31)	2 (20)
1-2 hrs	4 (7)	1(2)	1(10)
Total	54 (100)	49 (100)	10 (100)

7.2.1 Interviews: differing experiences in space

While they helped to provide detail to the understanding of patterns of usage: the interviews also revealed many differences in how people used and perceived spaces. Devonshire Green

was perhaps the only space that was universally regarded as being a 'green space' within the city centre boundary of the ring road. The Peace Gardens were regarded by some to be an open or a public space rather than a green space due to the lack of greenery and the small size. Although for others the function as an outdoor leisure space meant it differed little from 'green spaces' in its essential character. Small areas of green also offered similar functions even if not officially designated as such, for example, the space outside the cathedral and the space outside Sheffield Hallam University. The Winter Garden was also regarded by some to be a green space because of its social and educational value as well as value as a city attraction, whereas for others the formality and fact that they were inside mitigates against being seen as green space. This underlines the importance of asking about particular spaces as well as 'green areas' in general when conducting research, otherwise many vital points about how people used the spaces may be missed.

S: (referring to the Winter Garden) that's also a place that I use quite regularly, the reason I've not mentioned it is because I don't think of it as a green space, but its a different idea of a green space I suppose really isn't it?, It can be used for the same purpose other than it's not outdoors, but I do love the winter gardens, I think it's fabulous and I love the atmosphere in there, and I have been known to sit and have a coffee as well as just passing through. And I would try and walk through there, if I'm going somewhere like to the library I'll aim to walk through there ...

(Simon)

The findings of different experiences were supported in the interviews; thus while tending to be the most visited, the Peace Gardens and Devonshire Green were used for shorter periods. They were generally not places that people stopped for a long period of time or went particularly out of their way to visit but were visited when in the area. The Peace Gardens and also other spaces in the heart of the city were often used as sites for the 'break in the day' due to their proximity to the main shops and workplaces. This was likely to explain their greater usage as a place to stop (Table 7.9). In addition, Devonshire Green was being regenerated at the time of the questionnaire but interviewees said that since the redevelopment they felt more likely to use it as a place to stop. If the questionnaire had been conducted a year later then the results may have been different.

K: For me I was a bit funny in the beginning about Devonshire Green , I think I put that on my questionnaire, I was really upset that they hadn't finished it at the start of the nice weather, but actually, initially I was like why have you got this gorgeous green area and pebble-dashed half of it, I didn't get that, but actually, now you can see that people do really use it, and to be honest I haven't spent a lot of time sat there but I do probably walk through it a lot more than I used to. I used to kind of bypass it.

(Karen)

A: Probably since it's (Devonshire Green) been done I do use it more, since it's got the seating and stuff.

(Andrew)

The interviews allowed for a greater understanding of how people used green space in other areas immediately outside the city centre. These spaces were more likely to be places that were seen as destinations and places that people stayed for a longer amount of time, as well as being used as places that formed part of green routes when walking about the city. The spaces outside

the immediate city centre were also seen as preferable sites for the people who used them for active recreation, due to their larger size and the greater amount of vegetation. However people differed in what spaces were seen as local and what spaces were seen as destinations, which is explored in greater detail below.

While not a space in the centre or a traditional 'green space', the Peak District was often mentioned as a favoured destination and there was generally a stark contrast constructed by people within their narratives between for example, the Peak District and city parks. For these people the Peak District was somewhere they went out of their way to visit, for walking, whereas parks were places they walked through.

A: I'll probably occasionally walk through the Botanical Gardens if I'm walking down that way that's nice to walk through. But I tend to just walk through places, rather than sit down, but I will go for walks and stuff in the Peak District at the weekend.
(Amy)

K: I'll go to the Peak District to go walking.
(Kate)

There was often the construction of the Peak District as more of a destination as a result of the time taken to get there and also because of the activities people wanted to do there.

K: Going somewhere like Derbyshire would be more of an activity, more of an excursion going out there, and I would think it would be nice to get out and have that kind of open space, more so than probably in a park.

K: With a park, or Botanical Gardens I'd be more likely to nip there for a short time.
(Kerry)

Parks could also be places for more casual and relaxing activities while Peak District might be for more strenuous walking:

M: When I'm in the Peak District or anywhere else that's that sort of terrain I want to start at the bottom and walk up to the top because there's a kind of sense of satisfaction, even if its fairly small hills.
(Mark)

These quotes illustrate the wide ranging experiences and understandings of local and non-local spaces. It suggests that people used non-local and local spaces differently. Within the questionnaire results local green spaces were used more than non-local spaces. In fact there seemed to be little relationship between the usage of local and non-local spaces (Spearman's rho =0.199, p=0.003). This suggests there is a very small positive correlation between usage of local and non-local green spaces.

An important caveat in interpreting these results is that the interviews prompted a consideration of how the difference between local and non-local spaces was categorised within the questionnaire and how this then influenced any conclusions drawn. As an example, for some interviewees, Endcliffe Park was seen in a similar vein to the Botanical Gardens; in terms of being more of a destination space and that these were seen as very different to the spaces within the ring road. This was despite the fact that in the questionnaire, Botanical Gardens was categorised in the local category and Endcliffe Park within the non-local space category.

S: ... Devonshire Green, well I walk through there rather than stay there, but I like the way the forums extended out into it, they have sort of an eating area, that's really nice. So it's mainly the Botanical Gardens, Endcliffe Park, Bingham Park.

(Stewart)

K: Maybe not in this locality (city centre) I suppose that's why when I did ever go running at Endcliffe or meet friends at Endcliffe, as you go further out it becomes wilder, and I love the trees, you know water and trees, I love the fact that you run by the side of the water.

(Karen)

People therefore constructed differences between spaces at varying levels and for some the spaces within the city centre ring road were considered to be different to spaces outside. This to a degree was supported by the different usages reported in the questionnaire of the Peace Gardens and Devonshire Green compared to the next most used space of Botanical Gardens. On the other hand, some people viewed all city spaces in a similar vein and then contrasted this with countryside. This means that comparison between the local and non-local spaces using the questionnaire data should be treated with caution.

7.4 Physical activity

7.4.1 Physical activity performed

It was worth exploring the physical activity that people did before examining how it related to their usage of green space. Questions relating to walking were asked separately to those referring to other physical activity as it was felt they were likely to be unrelated.

How often people walk for 30 minutes or more

Most people walked for thirty minutes at least two times per week. Indeed the highest number (over 35%) of people, walk for thirty minutes five times per week, which is consistent with government recommendations (Figure 7.8).

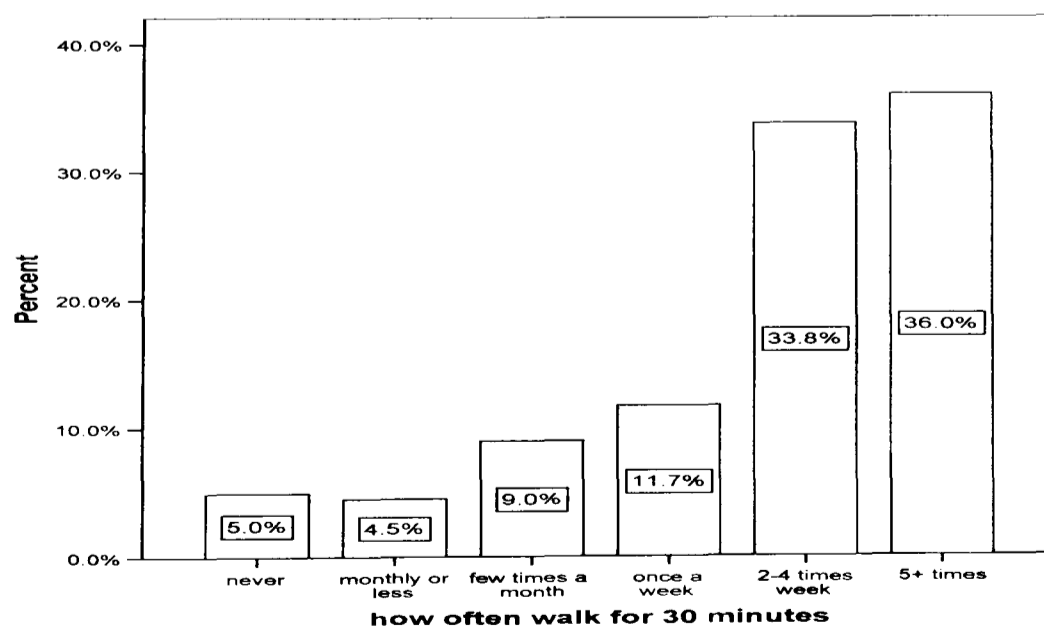


Figure 7.8. How often people walk for 30 minutes or more

Table 7.10. Where people do walking and other physical activity

Location	Where walk No (%)	Where do physical activity No (%)
Homes	n/a	34 (21)
Indoor facilities	n/a	112 (68)
Outdoor facilities	n/a	25 (15)
Streets/pavements	190 (90)	42 (25)
Green space	71 (34)	37 (22)
Countryside	54 (26)	20 (12)
Other place	9 (4)	5 (3)

Results showed that 90% of people walked on streets/pavements for 30 minutes or more and around 1/3 used green spaces for this.

Table: 7.11. Other physical activity conducted

Type of physical activity	Yes (%)
None	56(25)
Jogging/running	57 (26)
Cycling	21(10)
Swimming/water sports	47 (21)
Football/basketball/team sports	28 (13)
Racquet sports	16 (7)
Gym workout	78 (35)
Other physical activity	38 (17)

Gym workout was the most commonly performed physical activity followed by jogging/running and swimming/water sports, although 25% said they did no other form of physical activity.

**Figure 7.9. Cycling in Endcliffe Park**

Frequency of physical activity for 30 minutes or more.

This question was to gauge the number of people who met the government guidelines of five or more times a week (Chief Medical Officer, 2004), as well as to see if the population was regularly active. The bar chart (Figure 7.10) shows that nearly 70% of people participated in physical activity for thirty minutes at least twice a week. 14% participated five times per week. In line with the most popular activities of gym workout and swimming then indoor facilities were well used. Streets/pavements and green space were also each used by over 20% of people (Table 7.10).

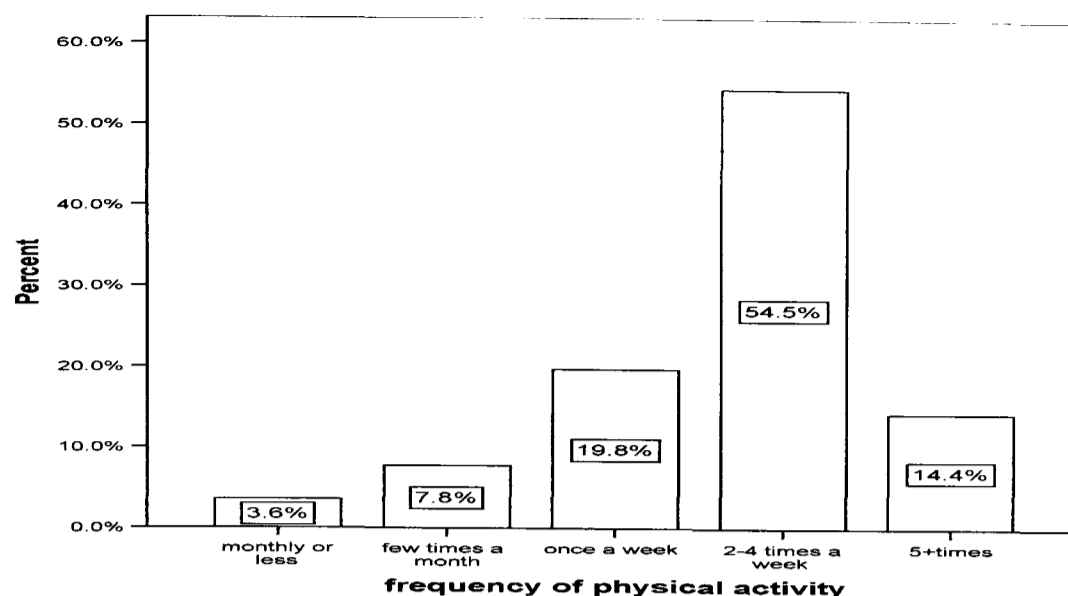


Figure: 7.10. Frequency of physical activity for 30 minutes or more

7.4.2 The relationships between green space and physical activity

1) Green space and walking for 30 minutes or more

There was a very small positive correlation between how often people walked for thirty minutes and frequency of visiting local green spaces. As this correlation is so low it is unlikely to explain the reason for walking to any great degree (Spearman's Rho =0.177, p=0.009).

2) Walking for 30 minutes and where people walked

a) Walking 5+ times per week

There were significant relationships between walking for more than five times per week or not and walking on streets /pavements and walking in the countryside (Table 7.12). Cross tabulations were constructed to see the direction of this relationship. These suggested that walking on streets was associated with walking more frequently; and walking in countryside associated with walking less (Table 7.13).

Table 7.12. Relationship between walking for 30 minutes five or more times a week and where people walked.

Where walk	Chi square	P value
Street/pavement	10.889	0.001
Green space	0.105	0.746
countryside	9.490	0.002
Other areas	0.084	0.772

Table 7.13. Walking for 30 minutes and where people walked

Walk for 30 minutes	Walk on pavements/ street	Not walk on pavements
	Actual (expected)	Actual (expected)
< 5 times per week	111(118)	20(13)
>=5 times per week	79(72)	1 (8)
Walk for 30 mins	Walk in countryside	Not walk in countryside
	Actual (expected)	Actual (expected)
<5 times per week	43 (33.5)	88 (97.5)
>= 5 times per week	11 (20.5)	69 (59.5)

b) Walking once a week or more

A second set of chi squares were conducted dividing respondents between people who walked once a week or more and those who walked less (Table 7.14). This was undertaken in order to investigate whether it was the people who visited five or more times who were making the results significant. There was a significant association between walking for 30 minutes or more once a week and whether people walked on streets/pavements and whether they used countryside. There was no significant association between frequency of walking for thirty minutes and whether they walked in green spaces or other places. The patterns were the same as for the more than five times per week analyses. Therefore walking on streets was associated with walking more frequently and walking in countryside associated with walking less often (cross-tabulation not included)

Table 7.14. Chi squares exploring relationship between where people walk and whether people walk for 30 minutes or more, once a week or more.

Where walk	Chi square	P value
Street/pavement	10.901	0.001
Green space	0.632	0.427
Countryside	10.941	0.001
Other areas	0.074	0.785

3) Green space and other forms of physical activity

There was no significant association between frequency of visits to local green space and frequency of physical activity (Spearman's rho =0.125, p=0.109). There were no significant differences between people who did and did not use these spaces for exercise and the frequency of exercise (Table 7.15). Thus the frequency of doing physical activity was not associated with where people did that activity.

Table 7.15. MWUs investigating difference between people who use the different areas for exercise and frequency of exercise.

Area	U & Z	P value
Home	U =2066.5, Z =-0.782	0.434
Indoor facilities	U =2792, z =-0.881	0.378
Outdoor facilities	U =1559, z =-1.012	0.311
Streets/pavements	U =2234, z=-1.514	0.130
Green space	U =2270, z=-0.498	0.619
Countryside	U =1168.5, z=-1.593	0.111

7.4.3 Personal characteristics and frequency of walking and physical activity

MWUs and Kruskal Wallis tests were conducted and no associations were found between personal characteristics (gender, age, ethnic group, housing tenure, income etc) and frequency of walking or other physical activity.



Figure 7.11. A game of volley ball in Endcliffe Park

7.5 Frequency of usage and activities/ reasons for visiting local space



Figure 7.12. Dog walking in Botanical Gardens

This section explores any relationships between how often people used local spaces and what they did there (Table 7.16). Previous research found that for example, people who walked dogs tended to use green spaces more frequently (Figure 7.12).

Table 7.16. Statistical tests for activities done in green space and frequency of visit

Activity	Test	Statistic	P value
Sit and relax	MWU	U=3765.5 Z=-1.842	0.065
Walk dog	MWU	417	<0.001
Walk for pleasure	MWU	4059 Z= -0.655	0.513
Walk for transport	MWU	U =3808.5 Z =-1.742	0.082
Jog/run	MWU	U =1892.5 Z=-0.636	0.528
Cycle	MWU	U =603 Z=-0.246	0.805
Skateboard	MWU	U =92.5 Z=-240	0.045*
Other sports	MWU	U = 923 Z=-0.327	0.748
Watch/play with children	MWU	U=1100 Z=-2.341	0.019
Observe wildlife/greenery	MWU	U=1885 Z=-2.082	0.037
Meet/socialise	MWU	U=3270.5 Z=-0.356	0.722
Picnic	MWU	U =2353.5 Z=-0.578	0.568
Organised activities	MWU	1101.5 Z=-2.038	0.04
Other activities	MWU	U=1121.5 Z=-0.928	0.359

* There were not enough people who did skateboarding for this test to be valid

Significant results were found for the following activities:

Walking dogs

Yes: median: 5, IQR = 0, mean ranks =151.75

No: median: 3, IQR =2, mean ranks =92.82

It can be seen that for people who used green spaces to walk the dog the median was 'visit green spaces daily', compared to 1-3 times per week for people who do not walk the dog.

The box plots (Figure 7.13) show that all people who visited to walk a dog visited daily except a couple of outliers, whereas there was much greater variation in people who did not visit to walk the dog.

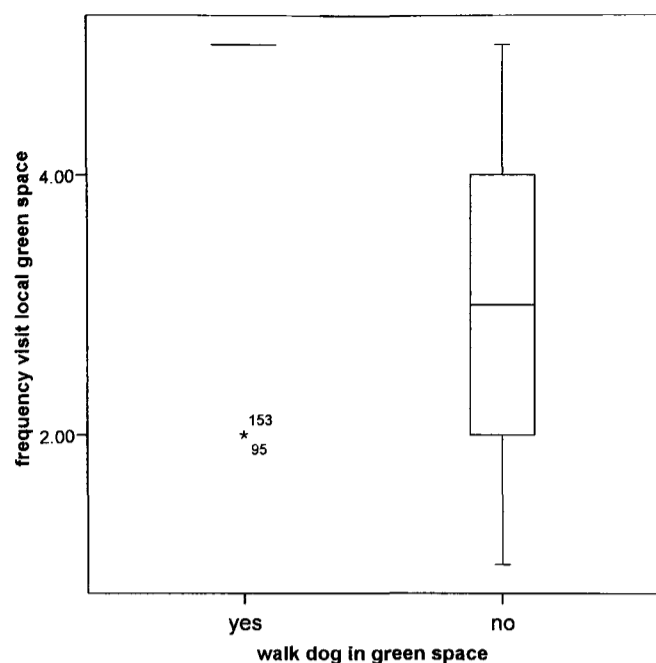


Figure 7.13. Frequency of visit and whether walking a dog

Watch/play with children

Yes: Median = 4, IQR =3, mean rank =122.11

No: Median =3, IQR =2, mean rank =91.97

The box plots (Figure 7.14) suggested that people who used green space for watching/playing with children may use them more, as did the mean ranks and medians.

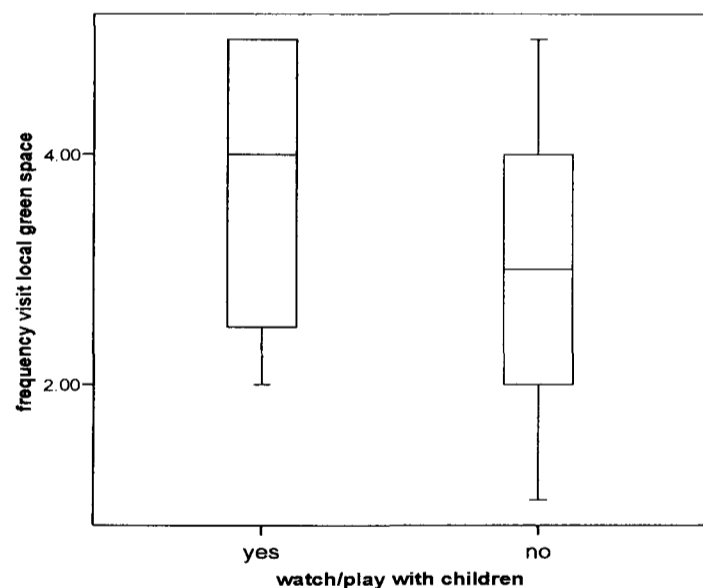


Figure 7.14. Frequency of visit to green space for people who watch/play with children and those that don't.

Organised activities

Yes: median =4, mean rank =119.31

No: median =3, mean rank =92.44

This suggested that people who took part in organised activities may visit more often than people who did not. This pattern can be observed in the boxplots below (Figure 7.15):

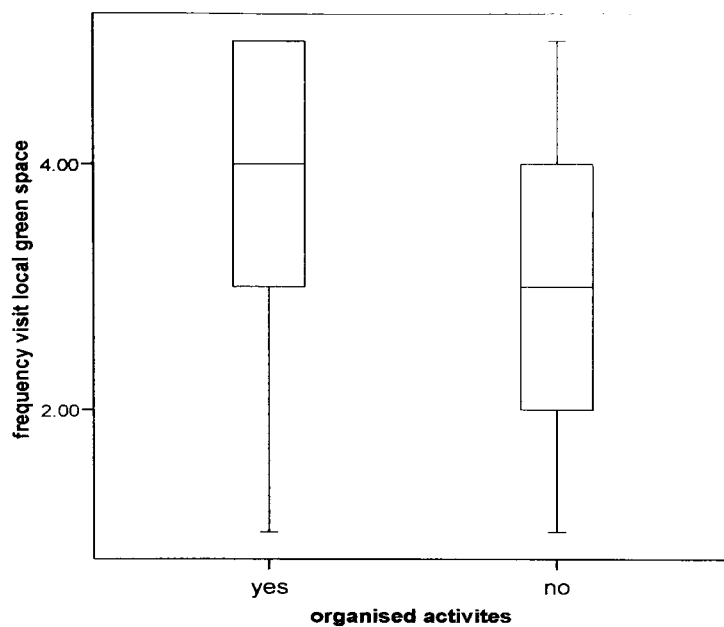


Figure 7.15. Frequency of visit to local green space for those that do organised activities or not.

Observe wildlife/greenery

Yes: median =3, Mean rank =113.19

No: median =3, Mean rank =91.43

The median for both groups was three, but there are less people below the median for those who visit to observe wildlife/greenery (Figure 7.16).

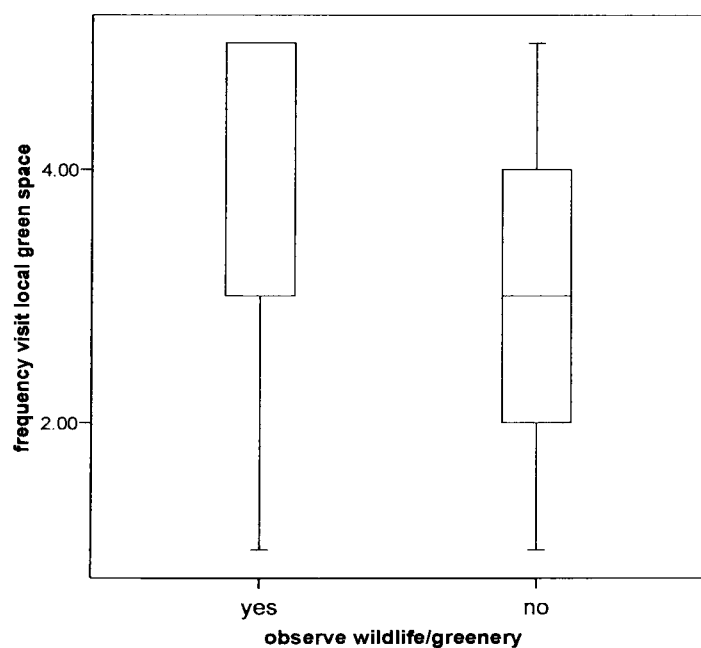


Figure 7.16. Frequency of visit to local green space for those that observe wildlife/greenery and those that do not.

Frequency of usage and other reasons for using space

MWUs were conducted in order to see if there were differences between people who visited for certain reasons and the frequency of visits to green spaces. It was found that there were no differences between people who did and did not visit for the reasons described in the frequency of usage, with the exception of 'visiting for beauty.' (MWU: $U = 2108$, $z = -2.066$, $p = 0.038$)

(significant at 5% level)) There was a significant difference between those who visited for beauty and those that didn't in frequency of visit to local green space.

7.6 Personal and background characteristics and usage of green space

7.6.1 Background characteristics and frequency of usage of space

There were no relationships between these characteristics and the frequency of visit to green space. Age was the only factor that came close to significance (Table 7.17). Age related differences are demonstrated in other aspects of green space usage.

Table 7.17. Relationships between personal/background characteristics and frequency of visit to local green space

Characteristic	Test	Statistic	P value
Age group	KW	9.957	0.076
Gender	MWU	5430, Z=-1.339	0.181
Marital status 1	KW	3.619	0.605
Marital status 2	MWU	5573.5, Z=-0.468	0.641
Marital status 3	MWU	3321, Z= -1.370	0.171
Ethnic group 1	MWU	2839.5, Z=0.469	0.642
Ethnic group 2	KW	2.680	0.749
Religion	kw	4.209	0.520
Religiosity	MWU	6030.5, Z=-0.1	0.921
Education level	KW	5.477	0.360
Access to car/vehicle	MWU	5573	0.746
Health over past year	KW	4.210	0.122
Disability	MWU	3336	0.729
Tenure	KW	0.364	0.834

7.6.2 Personal characteristics and who visit with

Further chi square tests were conducted which sought to establish the relationships between personal characteristics and who people used their most visited space with. For example, previous research has suggested that there may be gender differences in the likelihood of visiting spaces alone, reflecting women's fear of crime in public spaces (Pacione, 2003, Keane, 1997). Age differences and differences between ethnic groups have also been found in patterns of usage (Payne, 2002).

Table 7.18. Chi Squares for association between age and who people visit green space with

	Chi square	df	P value
Visit alone	6.507	4	0.164
Friends	12.048	4	0.017
Spouse/partner	9.779	4	0.044
Children	9.934	1	0.002

Significant associations were found with age and visiting with friends, spouse/partner and children, but not alone. Table 7.19 explores the directions of the associations.

Table 7.19. Age and who people visited with

	16-24 Actual (expected)	25-34 Actual (expected)	35-44 Actual (expected)	45-54 Actual (expected)	55+ Actual (expected)
Friends	23 (14.4)	23 (24.8)	11 (11.5)	5 (9.2)	9 (11.1)
Not friends	16 (24.6)	44 (42.2)	20 (19.5)	20 (15.8)	21 (18.9)
Partner	14(14.4)	32 (24.8)	13 (11.5)	4(9.2)	
Not partner	25(24.6)	35 (42.2)	18 (19.5)	21(15.8)	
	16-44	45+			
Children	10 (16.4)	13 (6.6)			
Not children	127 (120.6)	42 (48.4)			

Friends: There were more than expected who visited with friends in the youngest age group and less than expected that did not. Conversely it appears the older age groups were less likely to visit with friends.

Partner/Spouse: In the 25-34 age group there were more than expected who visited with a partner or spouse and in the older age groups (45+) there were marginally less than expected who visited with a partner/spouse.

Children: Younger people appeared less likely to use green space with children. This makes sense as they were less likely to have children. Older people appeared more likely to visit with children.

Gender and who people visited with: Chi square tests were conducted. There were no associations between gender and who people visited with

Whether born in UK and who people visited with: Chi square tests were conducted. There were no associations between whether people were born in the UK and who people visited with

Ethnic group and who people visited with: There were no associations between ethnic groups and who people visited with

Tenure and who people visited with

There were no associations between tenure and who people visited with

7.6.3 Personal characteristics and what people did in green space

Chi squares were conducted to see the relationships between what people did in green space, their reasons for visiting green space and personal characteristics.

Age and what people did in green space

Some associations were found between age and what people did in green space (Table 7.20) Table 7.21 reports the directions of these associations.

Table 7.20 Significant associations for age and what people did in green space

Activity	Chi square	P value
Watch/ play with children	7.977	0.005
Observe wildlife/greenery	4.068	0.044
Meet/socialise with people	5.390	0.020

Table 7.21. Cross-tabulation of significant results for age and what people did in green space

Activity	Age: 16-44 Count (expected)	Age: 45+ Count (expected)
Watch/play with children	9 (14.4)	11 (5.6)
Not watch /play	129 (123.6)	43 (48.4)
Observe wildlife/greenery	17 (21.6)	13(8.4)
Not observe wildlife/greenery	121(116.4)	41 (45.6)
Meet/socialise with people	40 (33.8)	7 (13.2)
Not Meet/socialise with people	98(104.2)	47 (40.8)

Older people were more likely to watch/play with children and to observe wildlife/greenery than younger people. Younger people were more likely to socialise with people in green space than older people.

Gender: There was a slight association between gender and visiting ‘for fresh air.’ More women and less men than expected used green space ‘for fresh air.’

(Chi Square =4.620, df=1, p=0.032 (significant at 5% level))

Housing tenure group: There was no association between housing tenure and the type of activities people did or the reasons for visiting a green space.

Ethnic group: There were no associations between ethnic group and the type of activities and reasons for visiting a green space.

Age was therefore the only characteristic where there were significant differences amongst the groups in terms of how they used green spaces.

7.7 Children and using green space

**Figure 7.17. Play area, Endcliffe Park**

This section explores whether there was any relationship between frequency of visit and length of stay in the most used space, for:

- 1) children in the house (7.7.1.)
 - 2) whether local green space was used to watch /play with children*(7.7.2.)
 - 3) whether green space was visited in the company of children (see section 7.8)
- (*frequency of visit has been presented in previous section)

7.7.1 Children in the house

MWUs were conducted which investigated whether there were differences between having children in the house and not in usage of green space (Table 7.22)

Table 7.22. Having children in house and usage of green space

	Test	Statistic	P value
Freq of visit local space	MWU	1326.5 Z=-3.039	0.002
Freq visit wider space	MWU	1647 Z=-1.655	0.099
Length stay	MWU	1116.5 Z=-2.803	0.004

There was a significant difference in the frequency with which people used green space between those with children in the house and those without. There was no significant difference between people who had children in the household and those who didn't in the frequency that they visited non-local green space. There was a significant difference in the length of time that people stayed in their most used local green spaces between those with children in the household and those without children in the household.

Direction of associations

Frequency of visit to local green space

The median for people who had children was four, compared to two for those without. The greater frequency of visit for those with children can be observed by looking at the boxplots below which show clearly the difference between the two groups (Figure 7.18).

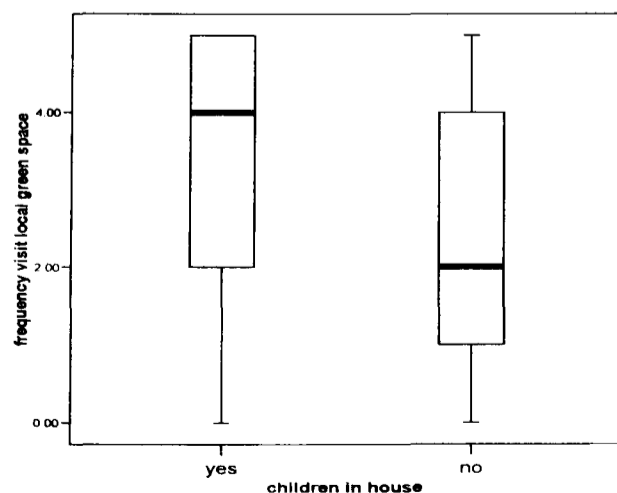


Figure 7.18. Frequency of visit to local green space for people with, and without children in the house

It can be observed from the box plot on the left, which represents people with children in the house that the median is much higher and that the middle 50 % of observations (IQR represented by the grey box) are higher than for people without children in the house. This suggests that people with children in the house used local spaces more than people that did not. A cross-tabulation was also conducted which suggested similar direction of relationship (not included) (Chi square=4.956, df=1, p=0.026 (significant at 5% level)).

Length of stay in local green space.



Figure 7.19. Children in house and length of stay

The boxplots show that the median was higher for people with children (Children in house: median =3, mean rank =123.83, No children in house: median = 2, mean rank =90.23). Whilst there were people that visited for a longer amount of time in the 'no' category, the bulk of observations were concentrated at a lower amount of time for people who did not have children in the house. This suggested that people with children in the house stayed longer on average than people without, although there was a considerable overlap. A cross-tabulation was also conducted which showed similar patterns (not included) (Chi square =3.968, df=1, p=0.046 (significant at 5% level)). The fact that the p value is marginal appears to reflect that the expected and actual counts are very similar for people that do not have children.

7.7.2 Watch/ play with children

While it is important to know how having children affects green space usage, it is also important to see how people who specifically play with/watch children use green space. It is of course not necessarily the case that people who have children in their house were visiting with them and vice versa.

Table 7.23. Relationship between watch/play with children in local green space and usage of green space:

	Test	Statistic	P value
Freq of visit local space	MWU	U=1100, Z=-2.341	exact p=0.019
Freq of visit wider space	N/A		
Length stay	MWU	U= 958.5, Z = -3.012,	exact p=0.002

Direction of associations

There was a significant association between frequency of visit to local green space and whether people watched/played with children. There was a significant association between length of stay in most used space and whether people watched/played with children.

Frequency of visit

This was presented in the previous section referring to reasons for visiting green space. Reference to the box plot (Figure 7.14) indicated that people who watched or played with children appeared to visit more frequently. However, unlike whether people had children in the house, this was found to have no association through conducting the chi square test.

(Chi Square =2.062, df =1, p =0.151(not significant))

Length of stay

People who watched/played with children appeared to stay longer on average than people who did not (yes: median =3, mean rank =128.55, no: median =2, mean rank =90.67) (Figure 7.20) A cross-tabulation (not included) was also conducted which suggested that people who watched/ played with children were more likely to stay for a longer time in local green space.

(Chi Square =6.315, df =1, p=0.012 (significant at 5% level))

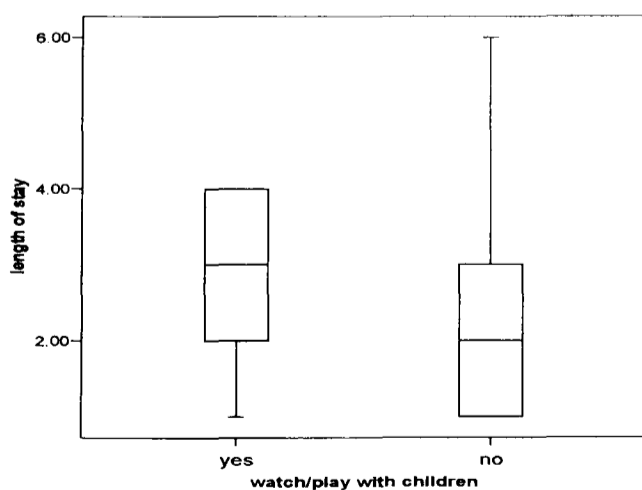


Figure 7.20. Watch/play with children and length of stay in green space

7.7.3 Interviews regarding children in green space

Green spaces were generally thought of as particularly important for children in the city, providing safe places to play. This view was held by people without children who thought it was important and often considered it more important for people with children than for themselves. The point was frequently made that they did not use spaces as often as people who had children. In addition for some younger people the possible lack of space in the city centre would be a factor on their wanting to move out of the city centre when they considered having children.

S: I think as far as kids are concerned it's important to have outside space to play in, a safe outside space to play in, and for me as a child that didn't matter because of the garden, but if you didn't have that then parks would be important.

(Stewart)

The people with children described the many different occasions they used green spaces and the importance of using space with children and the value of children using them separately. Spaces considered safe were important for this.

S: I think it is important, because otherwise, if kids haven't got gardens to play in, that are safe and no outdoor spaces it's kind of like well what do they do? Most probably because of how we've moved, with the technology as it is, they probably play computer games, or laptops or television, or something indoors but I think because we didn't have that when I was a kid it was the only thing to do really, go out to play.

(Simon)

R: I go to Endcliffe Park quite a lot because we've got friends who live up there and (son) does various things up there, he goes to cubs, so I drop him at cubs and take the dog for a walk and most weekends we go out to the Peak District or go to Eccellsall woods or somewhere like that.

(Rose)

7.8 Company in visit to green spaces and usage



Figure 7.21. Groups of people in the Peace Gardens

7.8.1 Frequency of visit

This section explores the company who people visited green spaces with, and how this related to:

- a) frequency of visit to local green spaces
- b) length of stay in most used local green space

(frequency of visit to non-local green spaces was not meaningful as people were asked who they visited *local* green spaces with)

MWUs were conducted exploring relationship between who visit with and frequency of visit to local green space (Table 7.24)

Table 7.24. Relationship between frequency of visit to local green spaces and who use spaces with

Who visit with	Test	Statistic	P value
Alone	MWU	3329 Z=-1.682	0.093
Friends	MWU	3947.5 Z=-0.616	0.541
Partner/spouse	MWU	3450 Z=-1.960	0.05
Children	MWU	1574.5 Z=-1.119	0.269
Others	MWU	451.5 Z=-0.761	0.463

The only marginally significant association was visiting with partner/spouse.

7.8.2 Length of stay

MWUs were conducted exploring association between company and length of stay in most visited space (Table 7.25)

Table 7.25. Relationship between length of stay of the most visited space and who people visited with

Who visit with	Test	Statistic	P value
Alone	MWU	2489.5 Z=-4.210	<0.001
Friends	MWU	3460 Z=-2.031	0.042
Children	MWU	842 Z=-4.317	<0.001
Others	MWU	540 Z=-0.71	0.955
Partner/spouse	MWU	3522.5 Z=-1.785	0.074

It appears that who people visited with had a greater relationship upon how long they stayed rather than how often they visited. Significant results were at 1% level for alone and with children and 5% level for friends. Partner/spouse and others were not significant. By examining the medians we can see the direction of associations.

Alone: yes= 2 (less than 30 minutes), no =3(30 minutes-1 hour)

Friends: yes =3, no =2

Children: yes =3, no =2

For people who visited alone, the average length of a visit was less than 30 minutes compared to 30 minutes to 1 hour for people who visited with others. Visiting with friends and with children in contrast tended to be for longer. It makes intuitive sense that it takes longer when visiting with other people due to the likelihood of the more social nature of the visit, whereas walking through spaces on the way to work for example, was something likely to be done on their own.

It is important to recognise when interpreting the results that the questionnaire allowed people to tick more than one option for company for their 'typical visit' to local green space. Thus the comparison can only truly be made between visiting alone and with at least one other person. Therefore, if people were also perhaps, visiting with a spouse as well as their children then this would make a difference to the result. This may explain for example, why there was no significant difference between people who visited with children and those without in frequency of a visit to green space section.

7.9 Outside space and usage of green space

Three binary variables were created with answer of yes (have the space under question) and no (don't have access to the space under question):

1) Access to **outside space** –this was people who ticked any of the options for outside space (private garden, shared garden, roof terrace/balcony, patio or yard).

2) Access to **garden**- classified all those who had either a private or shared garden as yes, but those with other outside spaces as 'no'.

3) **Private Garden** -People who had a private domestic garden as opposed to all other spaces.

Private and shared gardens were separated because it was felt that people might have different usage of private and shared gardens and that private gardens may be different to public green spaces in a way that shared green spaces may not be. This responded to findings of the pilot interviews.

147 people had access to some form of outside space, 73 people did not

78 people had access to a garden, 142 did not

17 people had a private garden, 203 did not

7.8.1 Frequency of visit to local green space

There was a significant difference between people with access to a garden (private or shared) and those without in frequency of visit to green spaces (Table 7.26).

Table 7.26. Frequency of visit to local green space and outside space

Outside space	Test	Statistic	P value
All outside space	MWU	4514 Z=-1.8	0.072
Access to garden	MWU	4172.5 Z=-3.011	0.002
Private garden	MWU	1190.5 Z=-2.139	0.031

Direction of differences

Access to garden

Frequency of visit to green space:

Medians: yes =3, no =2. It appeared that the people with access to a garden tended to use green space more often (Figure 7.22)

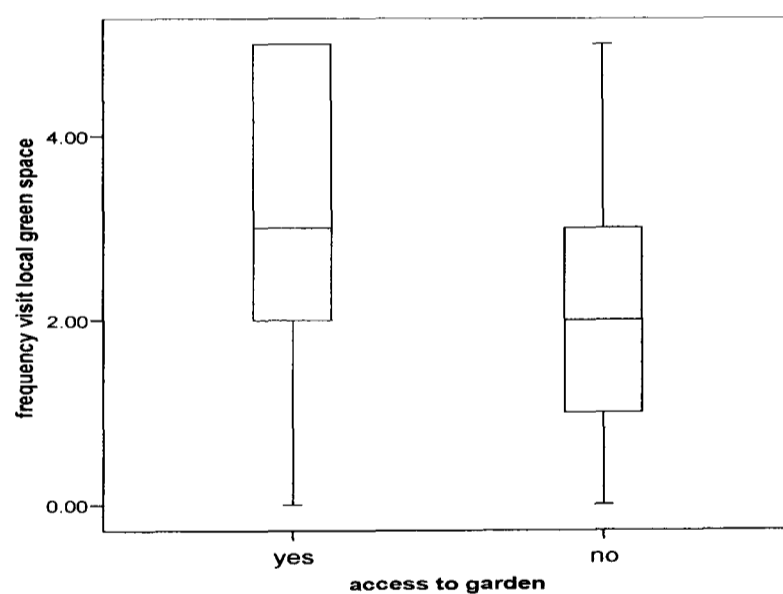


Figure 7.22. Frequency of usage of local green space for people with and without access to garden

Private Garden

Frequency of visit to green space

Medians Yes =5, median =2. From the boxplots (Figure 7.23) it appears that people with private gardens used local green spaces more often than people without private gardens.

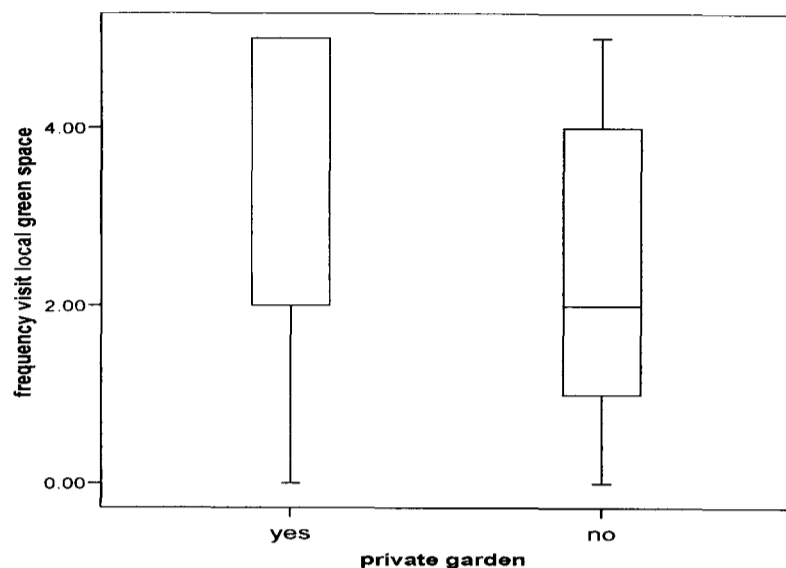


Figure 7.23. Access to private garden and frequency of usage of local green space

7.9.2 Length of stay in local green space

It was decided to examine if having outside space was related to the length of time that people stayed in green spaces. It may be that people with outside spaces do not spend as much time in green spaces when they do visit them because they have their own outside space to spend time in. Alternatively if it is the case that people who value their green space are more likely to have their own outside space and may correspondingly spend more time when they do visit. There were no differences between people with any outside space and those without in length of time they stayed in green space (Table 7.27). This may reflect the fact that the length of time referred to most used space; there is the possibility that results would have been different if people had been asked about their favourite space.

Table 7.27. Type of outside space and length of stay in most used space

Type of outside space	Test	Statistic	P value
All outside space	MWU	3433 Z=-0.726	0.469
Garden	MWU	3778.5 Z=-1.051	0.294
Private garden	MWU	1325 Z=-0.218	0.837

7.9.3 Interviews

In the interviews discussions about outside space were often grouped in with 'green space' there was often an overlap, particularly with shared gardens and green spaces, suggesting that they were not necessarily viewed as intrinsically different.

L: There's that lovely green bit in the middle for our children (small green space with flats built around the space), and you can observe them (children) all the time, so it's really, really excellent and of course we have trees in the middle, that's massively important to have that, because we're living in a concrete jungle.

(Louise)

On the other hand shared gardens were compared positively (i.e. more relaxing) and negatively (e.g. less lively) by different people. For example:

A: I think the green space is like...groups of people that are all interacting with each other whereas like, in (apartment block) people might be peering out of the window, I don't like it as much as say going to a big park, where everyone's out there.

(Andrew)

Green spaces can have a similar function to gardens within a city centre and there was an element that indicated green spaces could compensate for not having their own garden.

C: I mean for me it made green spaces more important because I wanted to have a green space that I could use in the absence of having one of my own.

(Claire)

S: I think living within a city centre, it does that specifically for you, I mean if you don't live in the city centre, you go to parks for different reasons I think. For me it's part of my living space, so when I'm feeling lazy, I'll go to Tudor square... and read a book.

(Stewart)

Some people suggested that they were more likely to use green spaces in the city centre in the absence of having their own outside space:

H: When I lived in Hunters Bar we had a little garden, a nice little thing at the back and we used to sit out in the summer quite a lot, we did used to go to parks as well, but probably sought it out more having moved to the city centre.

(Harriet)

S: When I lived down at city wharf that had a bit of a balcony, that you could get a couple of chairs on and I would sit there and I wouldn't go out and find a space because I'd got the space on the doorstep, but I think now it has become more important because I've got no access to an outdoor area where I live.

(Simon)

It was interesting that the interviews suggested that green space were seen as more important for some people in the city centre in the absence of having their own outside space. This seemingly contradicts with questionnaire results. However, it has to be remembered that there were a large number of people in the city centre with access to gardens and that these as we saw may be conflated with green spaces in much discussion; the division was not the same within the questionnaire so people may be looking at it differently. Additionally the interview sample may be made up of people who had stronger feelings about green space and for them green space compensated for not having their own green space, however for the city centre sample, green space may not be so valued and thus not sought out in the absence of gardens. Furthermore people were often talking about the value of green space and gardens from a hypothetical situation, for example imagining if they did not have a garden or vice versa. The people who did have gardens appeared to value green space in the same way as people who did not have gardens.

In addition frequency of usage was not an indicator of the importance of green space; saying that green spaces were more important did not necessarily translate into using them more. Indeed just because people said they used green spaces more as a result of not having gardens this did not necessarily mean this was the case on a population level. There was also the acknowledgement by some people that the choice to live in the city centre was reflecting a desire for convenience and not outside space and thus may be less important for some people. This relationship between usage and importance will be explored in more detail in the next chapter.

K: For me it's just nice to see a green area, I think because I haven't got a garden... where I was living at home, you know we had quite a big garden and fields behind us. It's just nice to have that connection and somewhere that I think I can go and read and go out, not that I do it that often but I know its there and I think it does add to your quality of life, definitely.

(Kate)

Kate raises the importance of green spaces in the absence of having gardens, however she also raises the fact that she did not necessarily use them that often, but knowing it was there was an important factor.

In summary there was the idea felt by some interviewees that green spaces were more important in the city where people were likely to have less outside space however this was not necessarily reflected in the questionnaire where people used green spaces more frequently if they did have gardens.

7.10 Key findings

- There was variation in usage of different green spaces, however the green spaces used most frequently tended to be the spaces within the ring road. Usage of green spaces was integrated into day to day life.
- Green spaces within the local area were generally used for short amounts of time, often for passing through. However people gained considerable enjoyment from just small contact with green space and often made an effort to find a green route or a have a short stay in the space.
- Local green space was contrasted with spaces further away on different levels, local spaces were generally perceived as for short and frequent visits, while spaces further afield were considered destinations. However the interviews also highlighted the varying categorisations of the difference between local and non-local space.
- There was no association between using green space and walking more often or doing other physical activities more often.
- Walking the dog, watching/playing with children and organised activities were associated with more frequent usage of green space. Having access to private or shared garden was associated with more frequent usage of green space.

- Having children in the house was also associated with going to green spaces more frequently as well as staying longer in green space.
- There was no association between personal characteristics such as age, gender, ethnicity etc and frequency of usage of green space. Age was associated with different patterns of who people visited spaces with.

The next chapter explores the benefits that people perceived they obtained from green space, as well as how the importance of green space could be conceptualised within the city centre.

Chapter 8 Benefits of Green Space

L. You don't have to be with anybody, you can simply sit and absorb the sights and sounds...it's a very sensory experience.
(Louise)

Qualitative and quantitative methods captured different aspects of how people felt about possible benefits of green areas in the city centre. The questionnaire allowed for an observation of patterns; however an understanding of how people related to green areas was perhaps better explored through concentration upon qualitative methods. This chapter therefore, focuses upon the qualitative methods and highlights where this was supported (or not) by quantitative findings. 8.1 examines how the benefits can be conceptualised. 8.2, 8.3 and 8.4 look in detail at the various types of benefits: physical benefits, social benefits and mental/emotional benefits. Finally 8.5 examines the importance that people attributed to green spaces in the city centre and how this may reflect views about values of green space beyond personal usage of space.

8.1 General approach to green space benefits

There were general beliefs amongst interviewees that green areas could be seen to provide a variety of benefits and that different green spaces were more able to provide certain benefits. It was also apparent that different people were more interested in particular benefits. People perceived benefits, both for themselves and also how they might appeal to other people.

Within interview discussion, there arose the issue of many different types of green – definitions of 'green space' were varied, however people tended to go beyond the city centre space in seeing benefits. This is highlighted throughout the presentation of results and involved spaces outside the city centre such as the Peak District and also very small areas of green and even greenery on the streets which was seen to be valuable for the opportunities it provided for contact with nature.

The potential and experienced benefits of green spaces were generally therefore seen as multifaceted, within the interviews it was not the case that many people perceived only one benefit of being in green spaces, but rather a variety of interlocking benefits that could be experienced, for example:

V: Where people can go and chill out or do something different from the normal, or I suppose just enjoy, I mean you could be working there or you could just enjoy. It's not just a physical thing. I think it's mental and social and easy on the eye and good for the soul.
(Vivien)

Two distinctions can be made between how benefits of green spaces can be conceptualised:

1) Individual and social/community/other benefits: Benefits for the individual themselves and for others. Thus people considered benefits for themselves as individuals - what they experienced and went to green spaces for, and then there were possible benefits for the wider community and city centre. There was a variation in the extent to which people were interested in other people however. For most people there was a consideration beyond themselves.

Benefits for other people may also be different to those that are considered for themselves, for example, people could appreciate the social aspects of space but not want like that personally, or see benefits of physical activity but not do such activity themselves.

2) Mental, social and physical wellbeing. This is a broad classification of the benefits of green spaces of which most reported benefits fall into, although they are of course sometimes experienced together and there was usually a degree of overlap and interaction between the benefits. Furthermore people vary in the extent to which they assign priority to the different benefits. This chapter explores these benefits and how people construct them for themselves and for others and considers the importance of green spaces which illustrate how people considered the importance of benefits for themselves and for others.

8.2 Physical wellbeing

Perhaps the most immediately obvious way in which people would experience physical benefits is through physical exercise. Green spaces are often cited as place which increase people's levels of physical activity and encourage activity that they would not do otherwise; although as we saw in the literature review there is little evidence that having green spaces in areas influences people's physical activity.

As was observed in the previous chapter, only a minority of the questionnaire respondents used local green spaces for specific sports and exercise beyond walking, and whether they used green space for exercise bore no relation to the amount of exercise that they did. For those that did use green space for exercise there was a tendency for this to be outside the city centre ring road in the larger parks where they were able to immerse themselves in the environment and get off the streets. This was for both practical reasons; such as safety and ease of running and also for the pleasurable experience of being within a green environment. Green spaces were generally perceived as more attractive and safer than streets as places in which to jog and run.

P: Parks round Sheffield and football fields and stuff I play there all the time. I play quite a bit of five a side indoors on astro turf and pitches designed for that sort of thing and stuff and while that's fun, it's not the same as being on the grass and being outdoors, I enjoy that, so really important, I'd miss not having the opportunity to access parks.

(Pete)

A: I really like when I'm jogging, to jog round, and I love looking, to like keep myself entertained. It's nice to jog round the lake and stuff, especially because I've seen all sort of things in the lake like a Heron and fish and stuff and rabbits and its just nice. You feel that you are like in the country and it just sort of feels like that the environment just feels cleaner, cleaner air.

(Andrew)

Thus even if green spaces do not necessarily increase the likelihood of people doing physical activity; they may make it more enjoyable and pleasant.

Understandably, the spaces within city centre ring road were not generally deemed large enough to accommodate much physical exercise, however people did mention more informal activities, for example, kicking a football around or playing Frisbee. These activities generally

had a more social purpose rather than a physical fitness motivation. However, as we saw in the previous chapter, one of the prime usages of space was walking in green space, both for pleasure and for transport and this was certainly how the interviewees used both city spaces and spaces further afield.

K: ...it does mean something because I know it is about healthy living it's almost like green spaces are good. They promote walking and I know that's really important.
(Karen)

R: I don't know if it's true that having green spaces would encourage people to get out more and do exercise..., I think to be breathing in and out fresh air is good, I think it's underestimated how important it is to get people out everyday just to breathe the fresh air, but, you know, having a kick about pitch where people actually play games and things is very good for a city centre...So I think it probably does have physical benefits. Imagine a city centre without that green space, I think it would be horrid, but for me it's mainly about the colour and the mood thing.
(Rose)

Many people talked of using spaces to go walking, and the physical benefits this provided; however for many people that walked in spaces it appears that the mental and emotional benefits that derived from walking may be more valued. This was important to consider when understanding how people perceived benefits; it may be that physical benefits of walking are more of a by-product rather than a purpose.

K: Again I guess if I was going to Derbyshire then I would probably think right, walking but if I was going to a park, I'd probably have a bit of a walk there, but probably the main thing really would be just to get out and get fresh air.
(Karen)

As we saw in the previous chapter there were often distinctions employed in the type of walking done, just as had been divided in the questionnaire between walking for transport and walking for pleasure, and distinctions were made between walking through, walking round a space, and then also going to a place 'to go walking'. This tended to be spaces further out and often the Peak District in particular was a place where people went out of their way to go walking. This again was also about the diversity and size of the space which needed to be considerable if people were to go out of their way to be in it. It may also influence the extent to which people felt they were walking for the sake of getting physical exercise or whether for other reasons. For those who went running or did physical sports then physical benefits may be the prime motivation. Having contact with nature conveyed particular primarily mental benefits which were seemingly the reason why they would choose to walk or jog in green areas rather than on the streets.

P: Trying to keep fit is the main one for me whether I run or play football or something like that, so that's the biggest benefit.
(Pete)



Figure 8.1. Walking and sitting in Weston Park

There were other physical benefits aside from exercise. For example, people regularly described the benefit of getting ‘fresh air’ and sunshine; although green space was generally a space which could provide this because of the virtue of place being a place outside, a space to get away from the normal environment:

G: well sunshine's good for you. So if people are outdoors in the sunshine, as long as they're not getting skin cancer! They're getting Vitamin d or whatever it is, so that's physically good for you and if people are walking they are exercising, and breathing hopefully slightly better air (laughs)... well that's good for people. It's an alternative to sitting in front of the computer, or sitting in front of the television isn't it? And that's bound to, just the movement, that's bound to be good for people.

(Gail)

P: I suppose just getting fresh air makes you feel a bit healthier and a bit better in yourself, so that's just being outdoors really and not on the streets or on the roads or near the shops, trying to get away from all that... relaxing, good for your body and I suppose relaxing for your mind as well.

(Pete)

For people who cite the benefits of fresh air, there appeared to be an ideological difference as well as a physical difference between spaces with fresh air and spaces without. A green space meant getting away from the ‘city’ environment that was associated with pollution. The following two quotes highlight the complexity of the idea of ‘fresh air’ in city spaces:

I: Why do you go running in Endcliffe Park as opposed to running on the streets?

J: Well there's a lot less carbon monoxide, well I perceive there is anyway, you can kind of switch off and just tick along so it makes for a more pleasant experience.

(John)

A: Just a bit of a break from the pollution in the city centre but I suppose if you're in a place bang in the city centre then you're still going to get the pollution anyway. Somewhere like Botanical Gardens...with all the trees round, so it's just like, the air qualities probably a bit better.

(Amy)

Both these quotes raised the point as to whether city centre spaces did actually have a role in cleansing the air or whether it was simply perceptions, and secondly whether a large and significant amount of green was needed and if this was only available in more suburban spaces. However for a minority of people spaces were mentioned as offsetting pollution and improving

the quality of the air in the city itself, so this could be advantageous to the individual even if they didn't go into the green spaces. Greenery and trees in particular were mentioned in the context as important beyond discrete spaces in the reduction of pollution.

G: I think they are very important, I think they are the lungs of the city! Somebody said that didn't they.

(Gail)

G: Green spaces are the lungs of the city, so I think you need it for the quality of the air and I think it deadens noise as well, doesn't it? You see trees deaden noise, so the more you've got of them the better,

(George)

8.3 Social benefits



Figure 8.2. A party in Weston Park

Green spaces provided places for people to meet one another, to hang out with friends and to socialise, they were spaces for 'people watching' and enjoying the general social character of space. People also enjoyed interacting with other people in spaces, although they were unlikely to create long lasting relationships, it contributed to pleasurable experiences. They were often cited as good places to meet friends and family:

K: I think it's a good meeting place as well, you know, most people know where the green areas are and they cater, they can just say 'oh lets meet in the park' and take it from there. It's good to socialise in.

(Kate)

L: I think physically emotionally and mentally, plus they're great meeting places. You know if you want somewhere to hang out, to meet a friend.

(Louise)

S: I think they're good meeting places...Because if I ever arrange to meet friends in Sheffield, after work it's usually always at the Peace Gardens and the bars around the Peace Gardens are usually open. So it's a good space to sit and it's also a good place where I feel that I can go and sit before anyone else arrives.

(Simon)

For people with families they were places that could be enjoyed together or separately.

People also enjoyed the general social contact they had with people they did not know, as well as with friends and family and the creation of a sociable space where people could interact with one another in enjoyable ways.

R: When people are outside, sitting around relaxing and chatting they tend to talk to one another, they feel more jolly, children playing together, parents start talking, and you know organising things you can do outside.

(Rose)

C: I can't think of any specific examples but you do get chatting to people, you kind of just say hello, everybody's friendly and smiling.... It does kind of change people a little bit. Generally I think Sheffield's quite a friendly city.

(Claire)

Green spaces had community benefits that went beyond individual social experiences. Green spaces in the heart of the city had potential to encourage the local community to come out into the fresh air and to experience other benefits as well as socialising with one another.

K: I love the idea of Heeley City Farm. I think it's fantastic. It does cause a community around 'green issues' for want of a better phrase... it is more important that people are tuned in to a community mentally, to belong to a community, and I think probably spaces within city centre do promote that, they do help, you know definitely. The skatepark, it's a space for community, you belong to it, you meet friends there, and so to me whether it looks scruffy or not actually it's a fantastic use of a small space.

(Karen)

A: I suppose a small, I mean whatever, like a communal area, a space like that is, even if you've still got the pollution and that, it's quite good for social interaction and communities. To get things like air quality and things like tranquillity ...you'd have to go a bit further out, out of the city centre I think, err and err I think it's good to have as many green spaces as possible in the city centre.

(Amy)

These two quotes illustrate the importance of city green space in providing social integration and interaction for people –even if they cannot necessarily obtain the physical benefits they may experience from larger spaces.



Figure 8.3. Classical concert rehearsal in Botanical Gardens

Organised events were seen as particularly important for attracting people into spaces and potential ways of encouraging people to socialise.

V: If you use that green space for things like pop concerts and little galas and things like that, yeah I think that's probably another use for green space, and it just gets people out of their four walls, and it's good for the kids.

(Vivien)

C: I think when they do things like 'Sheffield on Sea' in the summer in the Peace Gardens, I think that's fab! People there, enjoying themselves, and that's a kind of shared experience which is fairly unique, that's something if you know you can share that with somebody else and get some enjoyment out of it. I think it's brilliant!

(Claire)

Not everyone appreciated the social character of spaces in the city centre and even the well used parks. They could be too busy and noisy to be attractive places to stay, although this did not mean that they felt they were unimportant for others – there was a general consensus that they were valuable for a multitude of reasons which did not necessitate personal visitation (see Section 8.5 for importance of green space).

K: I suppose the thing that you also find in the city centre is that the green spaces are definitely very occupied. So actually if you are going for a bit of space that's why it needs to be bigger, that's why I go for the bigger spaces. So actually you know there's only so much you can create of that feeling in a place that is so bustley. I love the Winter Gardens and I totally appreciate them but I just don't go and sit there because it's just too busy.

(Karen)

P: I suppose I see going into parks and having a walk or a sit down or whatever as something you try to do to relax and to get away from people and crowds and that sort of thing. But then the smaller a space is, like Crookes Valley Park or smaller spaces that are located near to the city centre, lots of people are going to go there, it kind of makes it more difficult to do that.

(Pete)

At the other extreme there were people who particularly enjoyed the social side of spaces, used them principally as places to meet people and spend time with friends and family, or often to have a 'break in the day' away from the work or home environment but with or surrounded by others (see Section 8.4.2 for relaxation with others).

Even if people did not necessarily stress social benefits for themselves, spaces outside the city were places that people would go with friends or perhaps take visitors, for example, Botanical Gardens or the Peak District, and even Peace Gardens and the Winter Garden were often seen as places to take people who did not live in Sheffield. For people who did not generally like the busyness of city centre green spaces, when they visited the wider spaces such as the Peak District this was often something they did with other people, which suggests they still have a social role, even if it is socialising with close friends and families. Social benefits were perhaps the areas where people thought they would most benefit others compared to themselves and this was seen as particularly the case for families in the city centre, who were seen as the most in need of space in the city.

8.4 Mental and emotional benefits



Figure 8.4. People on the grass in Devonshire Green

Mental and emotional benefits were varied but generally the most stressed by the interviewees. People felt a general sense of pleasure and satisfaction from contact with nature, ranging from isolation of the Peak District through to trees on streets. Contact with greenery and being in green spaces was enjoyable and made people feel happy, it lifted their mood.

K: That all contributes to me having wellbeing, because I don't feel like I've got any struggles in any particular areas... green spaces contribute to that. It makes you feel good!
(Karen)

K: I just think generally it makes you feel better doesn't it?
(Kerry)

R: I just think it's good for your mood, having greenery, going out and seeing trees and flowers, it just makes you feel better really. There's nothing worse than just grey concrete, it's miserable, it makes you feel miserable.
(Rose)

People gained a broad sense of improved mood, of feeling happier, from being in green spaces even for a short time and even from the small amount of greenery that could be provided in the city centre environment. The fact that benefits could be gained through only a short and fleeting contact was particularly relevant when we consider that people generally used city spaces for a short amount of time, often only passing through.



Figure 8.5. Woodland in Graves Park

J: Being happy is a bit of a fleeting thing isn't it? But I think being outside, breathing in the fresh air and having the sky above you and green things around you feels quite good and especially if you stop there instead of whizzing through it...but even if you are just whizzing through it you notice things, well I do anyway and I'm sure other people do as well.

(Jane)

People spoke in generalised, as well as specific ways, about pleasurable experiences they had had in green spaces, ranging from small city centre spaces to large open spaces. For many this was deemed to be a sensory experience involving the visual sense but also senses such as smell and sound. There were many cases of people reporting the beauty of a particular view, a specific space or the smell of grass, sound of birds, and particularly when being immersed in green spaces.

J: I think they [green areas] are very importantit makes you happy to look at plants and trees and things... also smell, if you've got plants growing then you get different senses from them. If you have grass and that gets cut then that's a fantastic smell, isn't it?

(Jane)

R: I think it helps if you can be in somewhere, I think it's visual, I think it's smell, I think it's touch as well. I mean smell is very important, cos you get a very lovely smell, of wet grass and you know the flowers as well, so I think yeah, like I say, what I love about Sheffield, which is different from some other cities I think, is, what they've done in Devonshire Green. You can sit on the grass, you know. It's not all benches and concrete sitting there looking at the flowers, they encourage, they've actually left grassy spaces, as they want people to sit on it and I think that's very important because I think feeling the grass and feeling the earth and things is really important, I think it's great.

(Rose)

L: ...I'm very grateful for that green space (the green space in the centre courtyard), when there's a thunderstorm and a really, really heavy shower, it is just so exciting! ...To stand on the balcony and watch all that green and the slopes just getting absolutely drowned, and the noise it's just so exciting. I think it's monumentally important to have green spaces.

(Louise)

The enthusiasm which people felt when engaged with nature was apparent and they took great pleasure at feeling such closeness. Nature was seen to be strongly evident in the changing weather and changing seasons. Contact with nature was not necessarily about being in a rural environment as the quotes above illustrate, people were enthralled by the nature on their doorsteps as well as the vast landscapes of the Peak District. For example:

J: I'd have to say the bit outside my front door!(laughs) the trees, the trees are just so lovely, ... I think the big ones are lime trees, and I just think they are very beautiful and errm, it's lovely, you can just watch them as the seasons change.

(Jane)

8.4.1 Relaxation



Figure 8.6. People sitting and lying in Botanical Gardens

Perhaps the most spoken of benefits were places for relaxation and calm. This was conceptualised in terms of the greenery and contact with nature –green is a relaxing colour and also the fact they were away from their usual environment.

D: I think green really helps you get better air quality, plus I mean green really helps relax your eyes. It's true.

(David)

C: Green space benefits people; well it does give me a fantastic sense of wellbeing. If I've been outside in green space and relaxed and it's kind of different air somehow, it does make you feel different, I suppose that kind of a sense of wellbeing, you know kind of feeling like your mood has been lifted and that you've had some good relaxation time.

(Claire)

H: Gardening and all that sort of thing, greenery... has a good effect on people it makes you feel happier, for some reason, you know, you're around it, it definitely makes you feel calmer.

(Harriet)

For some people the most relaxing green spaces had no or few people, this inevitably meant that preferred spaces were outside the city centre and even the Peak District where there was a far greater likelihood of isolation, for example:

R: ... the Peak District I think is absolutely wonderful..... In fact I like going there on my own really, it's one of my favourite things to do to just go out, especially in the summer... You can just sit, and you're kind of in the middle of the moor and you've got the huge landscape... It's just 20 minutes drive from my house. It's just brilliant... so for me that's a really good experience, because I'm not very sociable..... If there were lots of other people it wouldn't be as good.

(Rose)

K: ...a bit of space, a bit of time out, lack of bustle. I suppose the thing that you also find in the city centre is that the green spaces are definitely very occupied. So actually if you are going for a bit of space that's why it needs to be bigger...I love the Winter Gardens and I totally appreciate them but I just don't go and sit there because it's just too busy.

(Karen)



Figure 8.7. Peak District moor land

For many, green space right in the city centre could not provide the necessary feelings of ‘being away’ from the city centre that were important for them to feel relaxed.

A: Yeah if you want to get away from the city centre, from all the noise and stuff and relax, I do quite like it. It's more relaxing really, like errm. cos If you're gonna be in the city centre in green space you will always get a lot of people...yeah like running about yeah, kids running about(laugh)s... so errm, it's just kind of a bit noisy and busy, not quite as relaxing, but no they are nice though.

(Amy)

K: I think you can get it from most green areas, it depends what your form of relaxation is. I think for me if there were lots of little children running around screaming then I wouldn't find it that relaxing.

(Kate)

8.4.2 Relaxation with others



Figure 8.8. People in Peace Gardens

As the last quote from Kate suggests whether people find the city centre relaxing depends upon what your type of relaxation is. Some people obtained considerable enjoyment from the busyness of green space and the spaces are constituted as leisure spaces rather than spaces of work and city life:

G: I think it can be relaxing with other people there, yeah.

(Jane)

S: The whole thing just makes you feel relaxed if people are laying down, sitting down, sitting chatting and that informality about it. I think it passes on if somebody else is sitting you say oh I'd like to go and sit down. I think it's definitely a thing that catches on if you see a group whereas if you were to walk through the gardens on a really busy day but nobody was sitting there you'd probably kind of think 'oh!' 'I'll just pass through', but if there are lots of people gathering I think you tend to go and join in... I'm drawn to where people are.
(Simon)

Thus while for some relaxation may generally involve being away from others at least away from busy spaces, for some a busy city centre space itself can be relaxing.



Figure 8.9. Relaxing in Devonshire Green

Being in a relaxed atmosphere where other people were relaxed can rub off on you and make you feel correspondingly more relaxed, and of course busy spaces are places where people experience the social benefits discussed earlier.

K: I think if it's a nice day and you walk through a green area you know and you see a lot of people playing, it just probably gives you more pleasure and you probably feel happier. Whereas if you were always walking along streets, you know busy streets where people were always getting on with life generally, I think it does effect you mentally, perhaps. I think oh I should go out, and relax for a bit and just have a kick around with a few friends so yeah, I think definitely it does have a positive mental impact
(Kate)

S: I like the botanical gardens. It's kind of lively, but also peaceful and relaxed at the same time. There's always lot of people in there but it always feel very mellow and people are just relaxing and chilling, that's nice, and it's an attractive space...
(Stewart)

Whether one values relaxing with others; depends upon expectations of spaces and what one desires to do when there. For example, for some people if they conflate parks with countryside it may mean that are looking for that same peace and quiet that they expect from a rural environment, alternatively an association of relaxing environment with other people means there is no conflict:

P: I suppose I see going into parks and having a walk or a sit down or whatever as something you try to do to relax and to get away from like people and crowds and that sort of thing. But then the smaller a space is like Crookes Valley Park or smaller spaces that are located near to the city centre so that lots of people are going to go there, it kind of makes it more difficult to do that. So either bigger places or quieter places, yeah I find it a bit more relaxing, mmm.
(Pete)

S: I think the green space actually provides that for me because it's a relaxing environment and I think the idea of grass, green space, is in itself a relaxing kind of thing. Because where you've got grass you've usually got people laying on it.
(Simon)

Stewart highlights the conflicting emotions regarding green space and highlights how the social nature of city spaces may be regarded in a negative light:

I: I remember as a child, not liking green spaces, parks, because I used to like the countryside, and when I'm in the countryside I don't want any people around me at all, and I kind of transposed that to parks, and I thought I don't like parks because there's all those people around me! But of course I've realised that those sorts of green spaces are actually social places where people do come together.
(Stewart)

This quote by Stewart highlights the possibilities for differing expectations of city parks and countryside. Of course green spaces do not stay the same and neither do people's reasons for visiting them. People were aware that at different times different spaces would be busier than others. For most people, it appears that the variability of the city centre spaces busyness was something that they were aware of and the differing motivations for visiting means that they tended to view the social nature of spaces in a different light on different occasions.

J: Botanical Gardens, yeah that is quite relaxing but it also depends on the day you go as well and if something is going on or not, because sometimes it can be really lovely and calm and relaxing and other times it can be manic and lots going on.
(Jane)

For example, even if they preferred quieter green spaces people would generally still use city spaces because of ease and proximity. Conversely, one resident relayed an experience of how they had recently acquired a car, which meant it was easier to get out of the city and use the Peak District; consequently meaning that they used city spaces less. Furthermore, people's views often seemed contradictory but represented differing usages and expectations of space, for example if they claimed to dislike a really busy space, yet would still use that space to 'hang out' with friends. It could still be relaxing for socialising rather than for 'peace and quiet' and people may desire a social experience at some times while want to be alone at others.

As we saw in the social benefits section, there was also the fact that people could appreciate the social busy spaces but would not choose to spend time in them themselves, for example:

M: There are quite a few little kind of fairs and art events butI don't go to them for that reason, I'm more looking to get away a little bit rather than be surrounded by people. As I say I sometimes go with a group of people to lounge about or kick a football about but its not to kind of meet other people.
(Mark)

Thus the social side of green space, while for some people may detract from the likelihood of their personal usage, could nevertheless be perceived as beneficial for others.

8.4.3 Restoration and 'being away'

Previous research into green space has focused upon relaxation and mental benefits said to be afforded by being in green spaces. Much of this is based upon the psychological concept of

restoration, where certain places, including natural environments have been asserted to provide a degree of restoration of attention (similar to relaxation) (Kaplan, 1995).

As we have seen many people conceptualise their experiences of green space under the banner of relaxation. Indeed for people who wanted a 'break in the day' the language used was almost identical in green space providing space to help relax and then enable you to concentrate when go back to work later, 'restoring your capacity for attention' (Kaplan, 1995).

C: I think they give a more relaxed feeling to the city in general, I definitely think it makes people feel more positive and you know if green spaces are accessible, I do think it makes people more productive. If you can go in there and have a nice lunch break, even if its just 20 minutes, enjoying yourself as opposed to 20 minutes sitting in the office after eating your miserable sandwich at you desk thinking that you might as well get back to your work and check your emails.... I think that can make people feel more refreshed and probably mean that they've done a better job at the end of the day. So I do think that generally it's got to be a positive thing on loads of levels. I think generally people will be happier. It definitely makes me feel better.

(Claire)

For Claire green space provided the opportunity to have what she suggests is how a lunch break should be; that is away from the office in a different and more peaceful environment which then leaves one better able to cope with the demands of the day. Having a 'break in the day' or indeed using spaces as a place of relaxation may for some people, form part of an active strategy (whether they are really conscious of it or not) of stress relief designed to get one away from whatever stressors are in their life, be they the city, the workplace, the home:

D: I mean I'm not a person who likes to sit at a computer all day. My eyes get tired so I like to go out and have a stroll somewhere. So if it's only buildings, I mean you can go for a stroll where there are only buildings but you can't relax as well...

I: How often do you do that?

D: Not really at the moment because it's not really stressful at the moment, errm, when the exams come maybe.

(David)

L: I need to just get away from the noise or the students, I'll think of a park,

(Louise)

A: When it's nice here we like to go to the park rather than sit in the office, because we've been here all day, we just want to get away. You don't want to be in another building you just want to go somewhere in the open, errm, even if we don't go to the Weston Park we just end up going to that bit of grass opposite the hospital.

(Andrew)

The language of many people was to escape from the city or from the workplace from the stresses of life into a green space. Many people employed language such as 'oasis in the city' 'retreat' and 'escape from the city'. Being in green space even for brief amount of time is contrasted with the experience of the city centre. It can be constructed as leisure focused space, away from the city and away from work environment and that is what helps to create a relaxing environment. In this sense there is an ideological difference between the green and the street environment, as well as a physical difference.

S: I just like to look round to see what's happening, and just really to enjoy the space, err because I think it's a really relaxing environment to walk through an area where people are sitting around and maybe having a chat with a friend or maybe having their lunch or reading a newspaper or something. I think it is just a complete change to walking down streets where everybody's really busy, focused on where they are going to and it just kind of breaks up a journey.

(Simon)

I: What sort of feelings do you get from going to green space?

S: I suppose it gives you relaxation and therefore a feeling of wellbeing, and it's a space where you can, (pause) live, you err, in city centres you do things, you go shopping or you go to the cinemas, you go to pubs and bars, you do things, whereas the green spaces are an extension of your home. I think for the people that live in the city centre, who will not have their own garden, it's an extension of their home.

(Stewart)

Here green spaces are discussed as being intrinsically different to other city spaces which are associated with busyness, work and stress, while green spaces are places of relaxation and of leisure, and possibly quiet.

For some residents in order to feel relaxation there was a need for a degree of feeling separate and enclosed within the green space that made them feel they were not in the city. This could entail a larger size space or more greenery and variation which perhaps could not be provided in the city centre, in addition to the lack of intrusion from city centre indicators, for example, shops and roads:

P: I would prefer there (Crookes Valley Park) to Devonshire Green...probably because although like I say it gets busy in Crookes Valley Park it's not actually amongst a load of shops, whereas Devonshire Green's between sort of flats, shops, and a pub. There's a pub down there, and a pub on the bottom side of it and that and errm, there's people walking through all the time. Even though Crookes Valley Park's got busier it was sort of a bit more down a hill and it seems a bit more secluded and out the way and it's got a nice pond or whatever you want to call it, something you can walk round, yeah and just a bit less of a city centre feel to it.

(Paul)

K: Bigger, just that they're bigger, I like that because you can wander. I like the walking and I like the fact that you can meander, wander through and feel like you are away from everyone else. Devonshire Green is very open. It's very open which is great and I understand for safety reasons you don't want loads of bushes that people can hide in, fine I understand that, errm, and again it is a different character isn't it? That is perfect for a hot day to lie there. It's accessible for people that have been in an office all day and want to go out and just sit there, go for a drink and sit on terrace and you know, I see that it has that purpose and yeah, you know if that's what I wanted to do then that would be perfect for it, but I'd say that my green spaces are more for meandering through and a chat. You know I'm not really a sit still kind of person, so I'm definitely much more of a walker and you need the space to do that, and they haven't got the space.

(Karen)



Figure 8.10. Wooded path, Endcliffe Park

8.5. The importance of green spaces in the city centre

I have covered the reasons for visiting green space and the possible health and wellbeing benefits that people may obtain from green space; however this section explores how valuable and important spaces are to people, using questionnaire results and interview data.

8.5.1 Quantitative Perceptions

Overall, in terms of people's perceptions of the importance of green space for the areas in which they live (Table 8.1); people felt green spaces were important for the appearance of their local area; with nearly 90% agreeing (either agree or strongly agree) with this statement. People perceived them as less important for people to meet with less than 50% of people agreeing that they were important places for people to meet. In terms of 'important for the health of people' there is more agreement; with nearly 75% of people agreeing in some way that green spaces were important for the health of people in their area.

Table 8.1. Perceptions of value of green spaces to local area

Green spaces are...	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	No (%)	No (%)	No (%)	No (%)	No (%)
Important for appearance of area	1 (1)	5 (2)	13 (6)	82 (37)	121 (55)
Attracted me to area	36 (16)	74 (34)	61 (28)	39 (18)	11 (5)
Important places to meet	10 (5)	37 (17)	67 (30)	73 (33)	34 (15)
Important places for health of people	5 (2)	14 (6)	39 (18)	111 (50)	52 (24)
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Prefer to visit green space in other areas	27 (12)	38 (17)	88 (40)	61 (28)	6 (3)

8.5.2 Life satisfaction and green space

The relationship between life satisfaction and green space usage and perception may be an indicator of the contribution that green space may play in people's subjective wellbeing.

Usage of local green spaces

There is no association between frequency of usage of local green spaces and life satisfaction. (Spearman's rho =0.076, p=0.260)

Usage of non-local green spaces

There is no association between frequency of usage of wider green spaces and life satisfaction. (Spearman's rho =0.081, p=0.234).

These results suggested that frequency of usage of green spaces had no direct association with life satisfaction.

Satisfaction with local green space

There is a very low but positive correlation between life satisfaction and satisfaction with local green spaces (Spearman's rho =0.154, p=0.022)

There were significant association between satisfaction domains and life satisfaction (Table 8.2). The majority were moderate positive correlations, although spouse/partner and amount of leisure time could be classed as low. Comparing these to the correlation with satisfaction with local green space suggests that green space satisfaction was less important than satisfaction with other domains to overall life satisfaction.

Table 8.2. Satisfaction with life domains

Satisfaction domain	Rho	P value
Health	0.578	<0.001
Income of household	0.476	<0.001
House/flat	0.492	<0.001
Husband/wife/partner	0.388	<0.001
Job	0.505	<0.001
Social life	0.601	<0.001
Amount of leisure time	0.348	<0.001
Way spend leisure time	0.511	<0.001

8.5.3 Interviews

Discussion referring to the importance of green spaces in the city was broader than was obtained from structured questions, allowing an exploration of the different extent to which and ways green spaces are important to people and to the city as a whole. People varied in the general importance of how they perceived green spaces from seeing them as an essential part of life to a minor pleasure. However there was a general view that green spaces were not the most important contributors to overall 'wellbeing'; rather elements such as relationships, jobs and home environment were considered more important. Even though they were not the most important contributor to wellbeing, people frequently did cite greenery and green spaces to be important for all people, and this could be something that was taken for granted and possibly innate.

R: It makes people more relaxed and happier and generally nicer to one another as a result I suspect that there might be evidence to support my theory.

(Rose)

G: I think we must be programmed to need some kind of green and open space and some kind of contact with nature in our lives..... Certainly for me it does make me feel better.

(Gail)

C: Everyone benefits don't they, from the green space?

(Vivien)

Green space benefits were often perceived as important for all people, however this did not necessarily mean that it was important to have spaces in the city. The next section explores the importance to the city environment.

8.5.4 Expectations of green

This section explores whether people expected to find green space in the city and how this affected the importance ascribed to it. There was certainly a view among many interviewees that green space was not necessarily something that was expected in a city centre environment.

D: When I picture a city, like the grasslands in the middle of the city that would, be a bit weird. I suppose if it's small or something like Devonshire Green I suppose that would not be that bad but I don't think a huge one is a good idea, not a very good idea.

(David)

S: When we live in cities theoretically there could be no green at all. We could have no connection with nature at all, and so apart from the environmental impact of creating more oxygen and purifying the air, errm, we seem to like being near nature and greens a soothing colour.

(Stewart)

In fact in line with previous discussion about the benefits of green space and green space being understood in opposition to the city; there was a belief expressed by some that city centres were not supposed to be green places and that 'nature' is somehow out of place in a city environment. This created contradictory feelings for people about their expectations of the amount of green space in Sheffield. As we saw in Chapter Six, convenience was a prime motivator for choosing to live in the city centre (and green spaces were not) rather than a suburban environment. However this does not mean that green spaces were not particularly valued and could make the city a much more pleasant place to live:

K: I did move to the city centre for convenience, the green spaces they're actually are a bonus, an absolute bonus! And I think it would be harder without them.

(Karen)

C: I wouldn't like to say whether most people live in the city centre like us for convenience, or whether it's more than that. I mean for me it made green spaces more important because I wanted to have a green space that I could use in the absence of having one of my own.

(Claire)

For some people the fact that they did not have their own outside space made the greenness of city centre environment more important in making it an enjoyable place to live: although as we have seen this does not necessarily relate to why people move to the city centre.

V: It's a working class city really, errm, Sheffield and you have to accept that and err, I think you know people ought to be compensated (with green space) really for living where they do because we are so far away from the coast and perhaps people can't afford to get into Derbyshire. I mean we're fortunate that we are on the edge of this amazing countryside,
(Vivien)

M: Well I think they (green areas) still provide, not in the same way as well the park type green spaces, they provide a kind of escape from the city, and living in the kind of city centre you notice it more. Living in a quiet suburban street like I grew up in and going to a park you weren't really kind of escaping from anything, you were kind of escaping into it but now I think there is definitely a kind of escapism feel of getting away.
(Mark)

Thus it is possible that the need to get away to escape into green space could be more important if you live in a city centre environment than if you live in suburban areas where you are likely to have gardens and more open areas. In addition while one can assume that people may prioritise the convenience, there is always the fact that significant numbers of people living in the city centre do not have such a choice about where they live e.g. if living in social housing.

S: I think it's a bit like housing, if you live in a rabbit hutch then it has a very negative impact on how you see life. It's claustrophobic, it's cluttered, it's stressful, and if you don't have public spaces round where people live then it's the same thing it creates stress. Any animal put in a confined space; it produces stress so whether that's in a building or it's in a city I think that's the same. I think public spaces are important for people to feel at ease in, to de-stress them.

(Stewart, private rental)

L: It's important though because we live such a busy fast paced life. I think that is crucially important, because outside of sleep, where do you get your relaxation? I think it's almost therapeutic in a way and I think really important for general health and wellbeing because I don't know where you would go, and perhaps you'd just hide away and get mental health problems... I know it sounds funny and far fetched but actually it can happen very easily. At least there you can get outdoors and you don't have to be with anybody, you can simply sit and absorb the sights and sounds.

(Louise, social housing)

For some people then the city environment is inherently stressful which makes having the opportunity to relax in green spaces all the more important. This is made more vital if people do not have access to spaces further out such as the Peak District or the larger parks. The city centre spaces may make city life easier if one does not have the capacity to escape from the city

R: If I had to stay here for a year without going to the countryside then I could cope, it would be enough because there's enough greenery and growing things and stuff to keep me going.

(Rachel)

Concomitantly there is the need to improve access to green space outside the city centre. However there also should be a recognition that not everyone is looking for the ideal of escaping from the city. Some people enjoy the busyness and vibrancy of the city centre and in fact when green spaces are busy then this adds to the enjoyment.

8. 5. 5 Relationship between importance of green space and usage

This section explores how the importance of green space relates to how and whether it was used. Spearman's Rhos were conducted using questionnaire data to see how perceptions about the contribution of green spaces related to how often people used them (Table 8.3).

Table 8.3. Correlations between perception of the value of green space in area and usage of space

Perception	Spearman's Rho	P value
Important for appearance	0.080	0.236
Prefer to visit green space in other areas	0.232	0.001
Attracted me to my area	0.261	<0.001
Important places for people to meet	0.179	0.008
Important for health of people in my area	0.078,	0.251

There is very little relationship between perceptions of the importance of green space in the area and people's usage of space (Table 8.3). There were very small positive correlations between 'prefer to visit green space in other areas', 'green space attracted me to my area' and 'important places to meet' and usage of green space. However these were very low correlations which did not explain usage patterns to any great extent. This means that people who used green spaces more frequently did not necessarily view the green spaces as more important than those that did not:

The interviews revealed two potential reasons for this:

1) Usage not related to the quality of experience

We have already seen that people enjoyed using green space even if they did not use them regularly. Related to this, it was observed in the previous chapter that proximity was very strongly associated with regular usage. This was not necessarily connected with the value that was placed on the space (see Chapter Nine for discussion of what appreciated about spaces and favourite spaces). Use of certain spaces may be based more on practicality and ease of usage. For example many people highly valued the Peak District but as relayed previously, time and also access made it almost impossible for this to be somewhere that they used frequently. This of course raises issues about improving the access to spaces outside the city centre core, including public transport as it tended to be people without cars who were less able to access the countryside and parks further afield. On the other hand city centre spaces perhaps become more important as places to use if the person was less able to get out to other places.

2) Importance beyond own usage

Secondly green spaces could be perceived as important for the city as a whole or for other people but not necessarily for people themselves.

8.5.6 Important for city

This was a particularly significant theme of the interviews. People derived pleasure from the knowledge that there were green spaces in the area and the fact that they were available to use even if that was just for a short time or was something that they did occasionally.

G: As far as I'm concerned the fact that I don't go and sit in them or play games in them doesn't matter. What you appreciate is the fact that they're there, that the air is almost always better when you walk through there, umm, because it must have some effect on the quality of the air even if it's very small and err, if it's a hot day, it's always cooler if you walk through there. It's more pleasant to walk on grass or see trees and it's so much quieter away from traffic and they're no walls to bounce the noise off, so they make places much more pleasant...you can appreciate them without going and wearing all the grass out can't you?(laugh)

(George)

M: I can't imagine them not being there. I think it's partly in your mind knowing that things are there but you don't necessarily always use.

(Mark)

Green spaces were important to the city itself in ways that go beyond individual wellbeing, for example, in terms of the appearance and identity of Sheffield shifting to a green city from an industrial city, as well as the general atmosphere and feel of the city which green contributes to.

I: How important would you say green spaces are to the city?

A: I think really important, like in a general sense in that every city with a green space, it's like a place to go and stuff. If you are talking about Sheffield in particular then very important because it prides itself as being this green city. Yeah if they're going to go on about this 'greenest city in the country' then it's obviously very important for Sheffield.

(Andrew)

K: It (green areas) adds to the general errm, kind of richness of the city, errm, it's difficult to say but I guess, like you know London I mean very rarely when I lived there I went to the museums and things but somehow they added to the richness of the city.

(Kerry)

Thus people valued the benefits that green spaces provided to the city itself but felt it was not necessary to go in to the space to experience it.

8.5.7 Importance for other people

As was raised previously many people suggested that other people could gain benefits from green space even if they did not them themselves, for example, children and families were cited as particularly needing space within the city centre.

S: I think as far as kids are concerned it's important to have outside space to play in, a safe outside space to play in, and for me as a child that didn't matter because of the garden, but if you didn't have that then parks would be important.

(Stewart, 40s)

A: ... the ones in the city centre, yeah, but because I don't really use them, they're just err, they don't really make a great deal of difference to me personally, I'll just tend to go round the shops and the garden thing really. But if I was going to have a family or something, then I'd probably prefer not to live in the centre actually, err, but err, like the garden, if I had a flat without a garden, without anything, I think that would be a lot more claustrophobic. Really, it's quite nice, just to look out on to the gardens, it feels a bit more open, yeah.

(Amy, 20s)

I: So you wouldn't say that you actually use green areas that much?

V: Not as much as perhaps someone with a young family or a student who wants to play football.... but I do appreciate them, I do think they are important for the life of the city, particularly for Sheffield.

(Vivien, 60s)

For some people it raised the prospect that they would want to move out of the city centre (as we saw in Chapter 6) when they had children. For people that did not have children or had grown up children green space could be appreciated as having benefits for families and children that went beyond those they required for themselves.

8.5.8 Importance of greenery



Figure 8.11. Greenery in the heart of the city

A further significant point is that greenery was valued by people even outside specific discrete green spaces that they were asked about in the questionnaire. This was an area where the interviews proved particularly valuable as they identified aspects not explored in the questionnaire. Greenery was seen to 'soften the city', to 'detract from the greyness' and could be relaxing simply through looking or walking past it.

S: To me it just adds a new dimension when you've got water and greenery and plants and trees, so I think we could do with more of it. Errm, I don't know what they've got planned for the Moor, but looking at what's been developed so far they've tried to add greenery whoever's designed it, funded it, so lets hope they do try and add things down the moor, add trees and grass, it would be good.

(Simon)

I: I wanted to ask you about greenery as well...?

C: Yeah I always think that's nice. I quite often walk to work down Weston Road and it's really nicely tree lined and it does feel really leafy and I don't know, it does have a different atmosphere to it. It's strange, but I guess it just kind of breaks the monotony and makes it feel sort of sheltered and feels quite sort of opulent in a way, sort of luxurious.

(Claire)

People particularly mentioned the greenery of Sheffield in comparison to other cities which were seen as more 'barren'. This barrenness was associated with a less inviting and even a more

oppressive environment. Greenery was associated with a more relaxed and pleasant place to be in.

K: My impression of Leeds is definitely influenced by the fact that whenever I've come into the city, it's just, your walk from the train station into the city. There's nothing, there's nothing at all, maybe one tree, you know what I mean. It does have a massive influence and even when I used to travel from my work place to where I lived, again I do like to see greenery, so I'd take the long way round to get anywhere near a tree! ... I think it massively influences how, maybe not other people, but how I feel about a place.

(Karen)

L: Yes, I think it (greenery) makes a street beautiful and inviting or uninspiring and dull. Manchester and Liverpool are two of the most uninspiring and aggressive cities in England and I don't think that's just sort of by chance. I think it's because the poor bastards don't have any green space. There are no trees. There are no inspiring features. There is nothing for them people unless you go way out of the way to a huge park to deliberately visit those. So I just think what's there for them? That's why there are shootings and stabbings and gang warfare on the streets, I, my parents, my family live in Liverpool. My husband's family, err, live in Manchester, and so we visit both of those and both of them have a distinct lack of greenery in any shape or form.

(Louise)



Figure 8.12. Tree lined walkway to the city centre from the station

Particular trees and specific areas of green were perceived as highly important for city centre residents, and took on significance that they would not necessarily have outside of a city environment where green spaces are more abundant.

I: Do you think greenery is important as well as actual green spaces?

M: Oh yeah, yeah as much so in some ways, particularly in the sort of more cramped urban spaces where you aren't going to get a large sort of green space. I think so, it's hard to say what it is. What it does, I don't know. This windows improved things for me by the fact that this tree is trying to get in. If it wasn't there I'd be disappointed. If the tree went I'd be disappointed.

(Mark)

L: That (the land opposite her building), was derelict land you know. The flats had been empty for a long time, but there was this lovely green space at the end of it that could be used and I considered it to be a green space. I wept when they tore up the trees. Trees particularly, you know are kind of oxygen giving life things, and there's something kind of raw and vital and essential about them.

(Louise)

For some residents, small elements of greenery could attain considerable importance and this was evidenced in reactions to possible or actual removal of such features.

8.6 Key findings

- People generally perceived there to be multiple benefits for green spaces. These included benefits for themselves and for other people and the city as a whole.
- Physical benefits were perhaps the least stressed, walking and physical exercise in green spaces was generally done for reasons additional to physical fitness.
- Many people valued the social side of space, for the potential to meet friends and family, and also as community resources. For others there could be conflict between the social nature of space and the desire for relaxation.
- Green space was perceived as a prime site for relaxation. People differed in the extent to which city spaces could provide this and this depended upon what they were wanting to get away from, for example the city or work; and the potential of the space to provide separation from this.
- People viewed city spaces as important for different reasons and felt they were important for others if not for themselves; furthermore spaces could be important even if did not really use them. They perceived benefits for themselves without active usage; for example in terms of attractiveness and image of the city.
- Greenery as well as discrete spaces was considered important in cities, as they provided a balance against the presumed harshness of the city centre environment.

Chapter 9 Perceptions of Green Space

S: Devonshire Green is a big improvement from what it was. I think it (Peace Gardens) is a really good quality space, I think the water as well adds another dimension to it and when the fountains are going and the waterfalls in the Peace Gardens I think it's great.
(Simon)

This chapter primarily focuses upon the qualitative data from the interviews; however it also highlights significant points raised by the questionnaire which illustrated broad understandings of how people perceived the green space in the city centre and how this related to their usage. It is important to stress here that the questionnaire asked people to consider all green spaces as a whole in terms of their perceptions, whereas the interviews gave people the opportunity to talk of individual spaces and it was apparent that they were perceived very differently. More extreme views appeared to be expressed with people liking and disliking different green spaces. The questionnaire in asking people to consider green spaces as a whole gave less extreme responses.

Section 9.1 illustrates the quantitative perceptions about local green spaces. 9.2 and 9.3 draw primarily upon qualitative data and explore how people viewed the quantity and quality of space respectively. 9.4 explores how people perceived other users of green space. The final section, 9.5 utilising the quantitative analysis, focuses upon how perceptions related to peoples' usage.

9.1 General perceptions of green space

9.1.1 Perceptions of green

The questionnaire suggested that people varied in their perceptions of the city green spaces and were more positive about certain aspects than others (Table 9.1). For example perceptions of the quality of spaces appeared to be more positive than perceptions of the quantity of spaces. The different aspects will be explored in more detail below.

Table 9.1. Perceptions of green spaces in local area

Green spaces in local area	Agree or disagree				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	No (%)	No (%)	No (%)	No (%)	No (%)
Enough green spaces	25 (11)	69 (31)	43 (19)	73 (33)	12 (5)
In good condition	11(5)	24 (11)	46 (21)	117 (53)	22 (10)
Well equipped	9 (4)	34(16)	82 (37)	84 (38)	11 (5)
Suitable for children to play in	14 (6)	30(14)	67 (31)	88(40)	21(10)
Green space safe	6 (3)	26(12)	74(34)	102(47)	13(6)
Green space attractive	7 (3.2)	15(6.8)	44 (19.9)	130 (58.8)	25 (11.3)
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Too small	31(14)	62(28.1)	61(27.6)	61(27.6)	6(2.7)

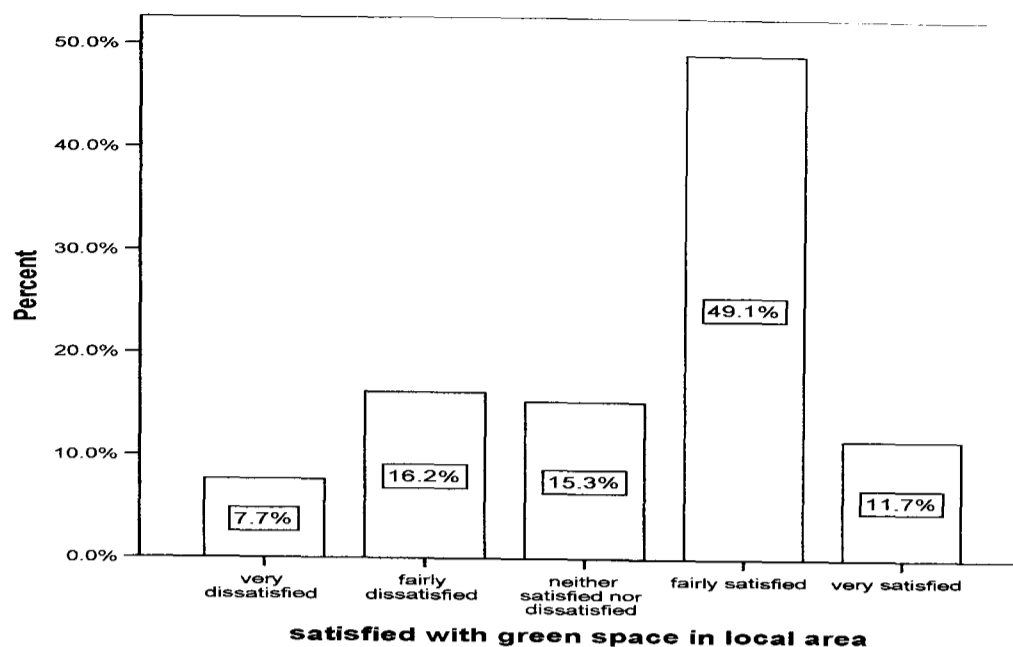


Figure 9.1. Satisfaction with local green space

The largest group of people were *fairly satisfied* with local green space (49%). The remaining was split relatively evenly between the other options although very few (8%) were very dissatisfied with green space in the local area.

9.1.2 Relationship between perceptions of local green and satisfaction with local green space

Table 9.2 demonstrates that there are moderate positive correlations between satisfaction with local green space and the perceptions of spaces. This suggests that all these factors were reasonably important for how people felt about the green spaces in the city centre.

Table 9.2. Perceptions of local green space and satisfaction with local green space

Perception of local green space	Spearman's rho	P value
Enough green in local area	0.588	<0.001
Green in good condition	0.583	<0.001
Well equipped	0.592	<0.001
Green space suitable for children to play	0.487	<0.001
Green space too small	0.493	<0.001
Green space safe	0.359	<0.001

9.2 Quantity of green space

Sheffield is often cited as a particularly green city compared to other cities. The city council website states for example that: '*as the greenest city in England you are never far from one of more than 200 parks, woodlands or gardens*' (Sheffield city council website,2007) The questionnaire results suggested mixed views, with the largest groups agreeing (31%) or disagreeing (33%) that there were enough spaces in the city centre. Similar mixed views were found for feelings that spaces were too small although there were more who were of no opinion (around 28% each agree, neither agree nor disagree, or disagree).

Mixed views were also apparent in the interviews. For people that thought there was enough green space in the city centre, it was often a particularly positive feature of Sheffield and sometimes made it stand apart from other cities. In fact, it was clear that some people accepted this idea that Sheffield was such a green city unproblematically, sometimes saying that they had heard statistics supporting this; whereas others questioned the reality of this and particularly with regard to the city centre. For some Sheffield may be greener than other cities but this did not mean that they would not like more green spaces.

9.2.1 'Sheffield is a green city'

K: I know it [Sheffield] is one of the greenest cities in Europe and I just think actually once you get there you really appreciate that...I know Leeds is like the metropolitan capital of the north or something but I think it's brilliant for shopping, but I just, I never liked the atmosphere.
(Karen)

K: I guess it's one of the more positive things about Sheffield that there are so many open spaces aren't there? or green spaces.
(Kerry)

The idea that there was enough green in the city centre was often bound up with notions about what people should expect in the city centre and what their priorities were. There was an underlying notion expressed that if you wanted more green should you really live in a city centre? The appreciation felt by people about having a considerable amount of green space in the city centre (even if they may want more) was apparent and therefore may have been compounded by expectations that they should not expect so much green in the city centre.

I Do you think there's enough (green areas) as we stand at the moment?

L: Well, that would be a difficult question to answer honestly because it's the town centre, it's not notoriously a place where people go to relax. It's a place where people are incited to spend money, or to get into debt or whatever you know, it's not, but even there we have the Peace Gardens and we have, errm, what's the wonderful?, the Millennium Galleries and the Winter Gardens, with all those wonderful plants. So yeah I think as far as city centres go we're lucky, you know cos, again although Devonshire Green is kind of this end of it it's still part of the town centre, ...so I think we do rather well.

(Louise)

K: I guess you kind of get used to seeing lots of concrete in the city, with all the development and people are opposed to that and would maybe prefer more green space, errm. I don't know, but I guess it's getting the right balance almost, yeah so whether we have enough, I'd say so, I mean you know. I guess if you want more you need to live more of a rural life or whatever don't you?.... I like cities really, so I kind of expect if you live in a city for it to be a city rather than tripping over sort of green areas, you know what I mean?...so I think we're quite lucky. It's quite balanced living here in Sheffield.

(Kerry)

Some people did not think there were enough green areas in the city and wanted more.

The city centre was seen by some interviewees as a different proposition to Sheffield as a whole; even if there was generally a large amount of green in Sheffield generally this did not necessarily extend to the heart of the city.

G: The actual city centre itself is a bit short on it.
(George)

C: I think Sheffield is quite good at having kind of public green spaces (pause). The only thing I would say is that Endcliffe Park is fantastic. Crookes Valley Park I think is lovely. Weston Park is nice too. The only thing... right in the city centre there really isn't anywhere that you can go and sit out on the grass.
(Claire)

A: ...Cos my mum and dad live near the Peak District, a bit...(inaudible) and not having the garden really, I mean there's like a shared roof top garden, but it's not quite the same really, but errm (laugh) , it gets a bit claustrophobic being in the city centre all the time.
(Amy)

For some people it was something that they missed about the city centre and for two people who moved out of the city centre to suburbs since completing the questionnaire it was mentioned as something which they now valued in their new suburban environment.

There was generally a view of the difficulty of creating new spaces within the city centre. In contrasting the green areas with the increasing construction of residential development many people felt that priorities should be altered and that instead of continuous building more land should be given over to public green spaces:

P: I don't know how they could sort of make a new green space, but maybe if they didn't put up so many flats!
(Pete)

C: If they could stop building every building cheek by jowl and have some green running in between it would be very nice.
(Caroline)

The questionnaire found mixed views about the size of spaces with around 27% of people each either disagreeing, neither agreeing or disagreeing, or agreeing, that the spaces were too small. Some interviewees expressed frustration that there were not bigger spaces nearby.

K: I find it frustrating sometimes that I have to walk a fair way to get to a decent size, but then mind you I shouldn't complain because what is it like 15 or 20 minutes walk to get to a nice green space. Not many people can walk for 15 /20 minutes and get to a decent green space.
(Karen)

P: Errm, so yeah I think there could be more, I think it could be a lot better, a lot better really, errrm, yeah...I mean it would be nice if there was a much bigger park closer, that was a lot nearer to the city centre really, that you could go to and that there would be enough room for people to play sport or whatever, go and sit down.
(Pete)

However again context was important and may be why there were mixed views in the questionnaire. Thus, wanting a bigger green space was not the same as expecting one to be

constructed; people were generally realistic about the possibilities for the creation of a large space in the city centre.

D: If Devonshire Green was bigger it could be pretty good, because it's a bit of a limited space, considering when the suns out everyone uses it so it's very crowded. It's still ok. I'm not complaining.

(David)

K: I definitely need space, where you can go aggh, and some peace, brilliant. And I suppose Sheffield will never have that big park in the centre, because it doesn't need to in some ways because of the accessible ...maybe they could improve access into those areas.

(Karen)

The importance of green space (as we saw in the previous chapter) and its relation to how people perceived the size and amount of green came over particularly during the discussion of the recently completed redevelopment of Devonshire Green. Many interviewees expressed their disappointment at the reduction in the amount of green within the space and its replacement by pathways and seating area. Bearing in mind the lack of green within the city centre, the small amount of green removed from Devonshire Green appeared to be particularly significant in a way it would be unlikely to be outside a city centre context.

P: Thinking about the green, Devonshire Green is a good example of where they had green space and it's been all been redeveloped but there's less grass - they've made it smaller because they want to fit in enough room to rent out some space to a pub or whatever! And put a path in and that sort of stuff. So although like it may look nice and moneys been spent on it, but they've took away some park that was in the city centre.

(Pete)

J: I think that the Forum seem somehow to have managed to buy some of it, which I think is just well it's supposed to well, the land belongs to the city, the people of the city doesn't it? so why we should have to go and buy coffee from the forum to be able to sit there, I don't quite know how that is allowed to happen.

(Jane)

J: They've taken some grass from the top end which is now all that nice gravel, yeah ok it's very neat and so on it's hardwearing and you can put up tents and things, but if we've lost some grass, Let's have some more grass back, thank you.

(John)

The reduction in the amount of green and how this came about also reflected wider concerns about the public nature of spaces –that they should be available for all people underlined the negative feelings towards the Forum Café Bar taking over a part of the space.



Figure 9.2. The Forum café/bar

9.2.2 Amount of greenery in the city centre



Figure 9.3. City centre street

The questionnaire did not ask about greenery in the city centre however it became clear during the course of early interviews that people also valued greenery (as seen in previous chapter) Greenery was not necessarily viewed in a similar way to green spaces. Viewing green space as quantitatively adequate did not necessarily mean that people felt there was enough greenery. For many it was seen as a way to create a greener city centre even if they acknowledged the difficulty to create more green spaces in the city centre environment.



Figure 9.4. Greenery outside cathedral

For people who viewed the greenery as extensive, they often talked about it in a particularly positive way as they did with green spaces in Sheffield. For many, the greenery created a positive impression of the city of Sheffield; for example people cited incidences of visitor surprise about the greenness of the city when they were expecting an 'industrial' city.

S: I've got a friend coming up weekend after next and he's never been to Sheffield before and I was saying Sheffield's the greenest city in England and I was sitting outside near where we met (for interview today), and I've got to demonstrate this. I've got to prove it!(laugh)...and I just looked across errm across over the station and you look over there and all you can see is trees, that's all you can see.... What other city?

(Stewart)

M: ...(visiting friends) were surprised by the lack of northern industriness, I think that's perhaps because a lot of it's gone, but also because they are clumped together in this part of town and pushing outwards towards Meadowhall that the rest of the city is quite nice leafy streets, and suburban parks and stuff.

(Mark)

As observed in the previous chapter, Sheffield was often contrasted favourably with other cities in terms of the amount of trees and greenery, as with the discrete green spaces.

K: I don't think you can ever have too many trees, a few more tree lined places wouldn't go amiss,I think Sheffield they are doing pretty good!, with all the green areas (laugh). Like I say I don't think there are many places where you look and can't see green or trees.

(Karen)

For others there was not enough greenery in the city centre, particularly trees and plants outside of pots.

J: Greenery on the streets, there's not much is there?... I'm a tree person, there's not many trees.... there's some good planting but its all in containers, isn't it?

(John)

D: I think they should plant more trees and things, we need more plants around.

(David)

G: I think some of the shops on Fargate do quite well with putting out hanging baskets and things like that, but I think there could be more, I know it gets vandalised though that's the trouble.... I know it's hard to maintain it. I think there could be more trees. There could be more planters and more flowers, but you know, it's not bad what there is.
(Gail)

Greenery was for some people more significant in the impression it can give of the city than green spaces and also may be more important if there was not space for discrete green spaces.

M: We need a new sort of green space perhaps. That's something that's missing, not necessarily like park spaces but just greenery.
(Mark)

K: A touch of greenery can make the city... I think that greenery really makes a difference.
(Kerry)

It was acknowledged by some people but also became apparent from the existence of greenery where people said there wasn't any, that there needs to be a significant number of trees or flowers or plantings for them to be noticed by people:

E: I think there is a lack of general street greenery... you imagine that they could quite easily have some hanging baskets or some planters and things, but they don't really. If they do they are too small for me to notice... it's got to be the exception rather than the rule, there's a few trees down Eccellsall Road, but they're so few and far between that you almost don't see them.
(Claire)

9.3 Quality of green space



Figure 9.5. Crookes Valley Park

The interviewees generally thought that the spaces in the city were good quality. This echoed the survey results where the majority of respondents were either neutral or agreed in response to the quality items. Much of the interviewees responses to quality of spaces was related to the regeneration of the parks and spaces that had been undertaken in the past few years, including Peace Gardens, Gell Street Park, Weston park, with Devonshire Green being completed during the time

between the questionnaires and the interviews. People who had lived in the city for a considerable time, were well aware of the changes and generally welcoming of the investment and priority being given to green spaces. For many the quality had improved significantly since the redevelopment even if there were concerns about the spaces. The improvement of some was more unequivocally positive (for example Gell Street and Peace Gardens) while Devonshire Green aroused a certain degree of concern over the removal of green as we saw previously. This must be qualified by recognising that less people were aware of Gell Street Park and the redevelopment of Peace Gardens had been done years previously, so people were less likely to remember it pre-renovation.

S: It's really nice to see all the parks being restore. Weston Park has been restored, the Botanical Gardens has been restored and Devonshire Green has been remodelled. Norfolk Park, they've done something to that. I'm not sure what they've done about Graves Park, but there's a lot of investment in improving them.

(Stewart)

I: Are they good enough quality?

R: Well, I think they are now, if you'd have asked me a couple of years ago I would have said no, but I think they are very high quality now and as long as they maintain them, that's great.

(Rose)

Many people were quite explicit in their point of comparison with how they were before development, despite not being asked specifically about this.



Figure 9.6. Recently restored Weston Park

In line with one of the general themes of this thesis; that people view varying spaces differently; this was particularly salient with reference to how they perceived the quality of spaces. People often singled out particular green spaces, rather than talking generally, as their feelings towards different spaces varied. Thus while broadly the quality of space was seen as good this did not mean that individuals did not have preferences or favourites. This was evident in the following results for the different aspects of the quality of green space.

9.3.1 Attractiveness of space



Figure 9.7. Area in front of station

Quantitative responses suggest that over 70% thought green spaces were attractive or very attractive, with only 10% having negative views of attractiveness of the spaces. Much focus in the quality of space in the interviews was in terms of attractiveness of green spaces in the city centre. This was considered to vary significantly for the different spaces with some spaces generally being singled out more than others. This ranged from the city centre spaces, such as Peace Gardens, station area (where public space with not much green were viewed in the same light) to parks further out such as the Botanical Gardens and the countryside. For example:

G: The winter gardens are inspired really. It's somewhere you can go any time of the year and its educational and its beautiful.
(Gail)

J: I like the Dark Peak more than the White Peak to be honest. There are some beautiful, beautiful spots. Do you know the Grindstones? middle of nowhere really, it's just yeah, fabulous. It's big country, just a big view and right here on the doorstep.
(John)

That people found beauty in many different areas suggested the importance of having attractive spaces in all areas of the city, as they would be appreciated. The values attributed to aesthetic qualities went beyond being simply a visual consideration but was often tied in with other feelings. Two examples included the desire for relaxation in the city centre environment and the role that they may play in representing the city.

K: I think outside of the train station they've done a fantastic job, with that feeling of calm and quiet, and actually you know that sculpture is fantastic in itself, but it also kind of blocks you off from the road behind, so actually when you come out you don't get road and lots of traffic.
(Karen)

S: I think Sheaf Square is fantastic. It's a fantastic welcome to the city. It looks so beautiful. People are so impressed with it when they arrive. Have you seen it at night?
(Stewart)

Some green spaces were obviously more attractive; however, this did not necessarily reflect usage. For example, the station area was highlighted as particularly beautiful however it was not somewhere you went out of your way to visit. It was there more as a signifier of the quality of Sheffield for residents and visitors alike and was somewhere that was passed through.

S: Well it's stunning at night, there are lots of colours in the water, it's really beautiful... I've had visitors arrive by train and have just been blown away by it, but it's not a place you go and sit in, or I wouldn't go and sit in it, but it is a fabulous space.

(Stewart)

Similarly the Peace Gardens were generally deemed attractive; however their busyness could deter some people (as we saw in Chapter Eight). They were small so again not a destination for some people. Furthermore, as we saw in previous chapters, the Peak District was generally not visited very frequently because of the distance from the city centre while being particularly admired for appearance.

The aspects that people considered in their appraisals of beauty as well as in their general assessment of quality were varied; however the design and the maintenance of the green space, including how they were looked after by other people and by official managers; were important.

S: I think the Peace Garden is absolutely fabulous, errm, you would have seen the city centre people wardens as they're called, walking round there patrolling, and I always kind of look around because I think it is so well kept, to see how much use it gets and there are always people on the grass, but if you walk through in the evening, the grass is always immaculate, there's never any litter, errm, very rarely do you see any litter around... I think that probably is because it's security patrolled and there are always people kind of looking out and I suppose if some litter is dropped somebody picks it up and disposes of it.

(Simon)

R: Crookes Valley Park, ...I think that's very pretty and well maintained and things, but now I think Gell Streets lovely... it just looks nice, with plants and flowers and it's got a nice little grassy area. It just looks kind of inviting and colourful and clean and kind of green.

(Rose)

Beauty of green spaces was associated with good design or at least interesting appearance if the space was not designed; for example the Peak District was regularly cited as a favourite space and cited for its variety of 'natural' features.

9.3.2 Design/features of spaces



Figure 9.8. Botanical Gardens, rose garden

‘Natural’ features such as trees, flowers, bushes were often cited as what was important in green spaces. Additionally, water features including lakes, ponds and fountains were seen as pleasurable and relaxing. For some there was an expression that water was as important as greenery in creating a relaxing atmosphere, particularly in small spaces. The Peace Gardens was an example of a very small successful green space. It functions primarily as a social space, however there were still elements which were deemed relaxing; for example, water and greenery, although some people felt it did not have enough greenery.



Figure 9.9. Peace Gardens in summer

Facilities such as benches/places to sit, easily accessible paths, as well as toilets and playground for children were also valued.

I: And again it's good, because it's kind of mixed use as well, because there's footpaths, but then there's kind of little tracks that you, you can feel a little bit more like you're in the middle of nowhere even though you are not very far from habitation. And there's different kinds of areas and then there's the play area, so that's quite a good playground (laugh).

(Claire)

S: I really like the combination of greenery and trees and grass and the modern new build effect of the fountains and the steps and the raised bits that have got the grass in and the water channels running through it. I just think the whole thing works really well together, but I think green it really is important because if you were just sitting in a concrete park or something there's nothing to look at and you don't get that contrast of textures and colour that kind of blend well together.

(Simon)

Having different types of vegetation, or different features to look at was valued by people, even a small space such as Gell Street Park was valued by having different types of vegetation rather than plain grass and bushes. For a bigger green space, different areas or facilities could make it interesting and enable it to be a destination for all types of people:

G: I can describe what the ideal might be, umm, it's probably an amalgamation of things you've got locally, umm, in that you've got a lake, with ducks on and maybe boating. People always like sitting by water, that's nice, trees, somewhere for kids to play football, err, somewhere for people to sit. If you're gonna have a café, make sure that it's run properly, otherwise don't bother! I think that's the sort of thing that you'd want, I mean you've got a combination. Weston Park that's got the Lake and the grass, hasn't it, the bushes and the trees. That's a much more mature and well established green space.

(George)

People talked of ideal features; however it seems that generally more popular spaces were places with a variety of features. Despite this, it was not expected that one space would necessarily provide all the elements that were desired in a space as long as variety was available in different areas. Indeed people valued the individual character of spaces

J: (Botanical Gardens) fantastic, it has got that blind garden and huge trees and snowdrops in the spring and the rockery bit. The trees there are just fantastic, you know they keep it so nicely there..., I think Endcliffe is much more like, people use it in a different way, perhaps. They can walk a long way in it or they can use the swings, or the kids can! (laugh) or go to the café, there's the big field and there's the river, and the variety of it. I mean the Botanical Gardens is more, it's a bit more manicured in that way. You've still got wildlife though.

(Jane)

The principal dislike in design terms was a lack of imagination, which on a few occasions was levelled at all spaces but generally was ascribed to particular spaces.

P: I guess one thing you might say is that they are not particularly interesting really, they are just sort of green spaces, with maybe the odd tree and stuff. There's not much gardens and stuff that makes them unique or anything like that really. The upkeep is good, but not particularly interesting in terms of design or anything like that.

(Pete)

L: The patches of grass are much less inspiring as we've already identified by comparing that green space, the Ponderosa with the others. It is less inspiring, isn't it? It's just errm, perhaps even if it was a bit more wild, but that's it, the grass is cut and there you are 'green grass'. It's rather like the architecture that's around it, it's uninspiring.

(Louise)

Ponderosa for example, was a space that was criticised by some people both for its design and its management as more of a recreation ground rather than a park. The size of the space also meant that there were greater possibilities for the improvement of the space than perhaps in other city spaces.

R: I'd like to see Ponderosa as much more of a kind of proper park, properly managed, properly thought out, and what to put there, what they're going to use it for and properly maintained..
(Rose)



Figure 9.10. The Ponderosa recreation ground

9.3.3 Facilities



Figure 9.11. Endcliffe Park café

The questionnaire suggested that people generally either agreed that spaces were well equipped (38%) or neither agree or disagree (37%). Only around 20% disagreed or strongly disagreed. For the interviewees facilities in green space were generally not such a preoccupation as were the general appearance and feel of the space. Some people were concerned for the development of new facilities or maintenance of existing facilities in spaces which felt would impact upon their usage.

P: If you know, there was something like a track or anything like that, maybe a bit of a path or something around the park, you know, cos I means there's other places in England and abroad where they'll have a park and there will be a board and it'll show a bit of a track that you can run round and it might have some like logs to jump over (slight laugh) ... to do exercises or stuff round it, that kind of thing ...

(Pete)

K: I think Endcliffe Park's quite nice. They are doing work there as well. The pavement surface is very broken up because of trees and tree roots coming up and I would say that is, that does need (maintenance), because when you are running, you trip!

(Kate)

The facilities that people did enjoy were often the cafes in or nearby the space; this of course raises the issue of the importance of the area surrounding the space in influencing how people feel about it. This emphasises how people often saw green spaces as integrated into the city centre life. When talking about facilities it was often facilities for other people that were thought important and as things to be improved about spaces. Amenities such as toilets, benches for older people and play spaces for children were seen as ways to improve the spaces which did not have them. This coincided with people's observations that certain groups did not use spaces as much as they might want to and ways to encourage them to do so; and also the importance of spaces for other people (see Chapter Eight).

P: Just more playgrounds, more dedicated space for playgrounds and err I think that sort of thing really, (pause) err, yeah that's it probably; make it a bit better for children and families.

(Pete)

I: What about facilities in green areas do you think there's enough?

K: Yeah, errm, I guess toilets and things like that it would be nice to have I guess more of them in public space and green areas. Play areas, again I don't have children so I can't really answer that, but I'm guessing things like that would encourage people to go more, and I guess families would consider that if you were going to green spaces, you know, you'd make sure that the facilities were there, but for me, yeah.

(Kerry)

We saw previously in Chapter Seven that generally people used green spaces for short times and thus people did not necessarily want more facilities for themselves, however this did not mean people did not perceive that they were important to other people or that once there they shouldn't be maintained properly.



Figure 9.12. Children's playground, Crookes Valley Park

9.3.4 Maintenance/condition of space

From the questionnaire the condition of green spaces was deemed to be good by over 60% of people, while 21% had no opinion and less than 16% disagreed. For the interviewees, maintenance appeared to have a significant impact upon how people perceived the spaces, for example it had an impact upon perceived attractiveness and safety. Areas were pointed out where maintenance was not done as effectively as in others (for example the canal area and Ponderosa space); with discussion extending to public and open spaces and the general city environment, not simply 'green' spaces. The maintenance of spaces highlighted by residents involved both the maintenance and management of vegetation and other features and the clearing of litter and graffiti.

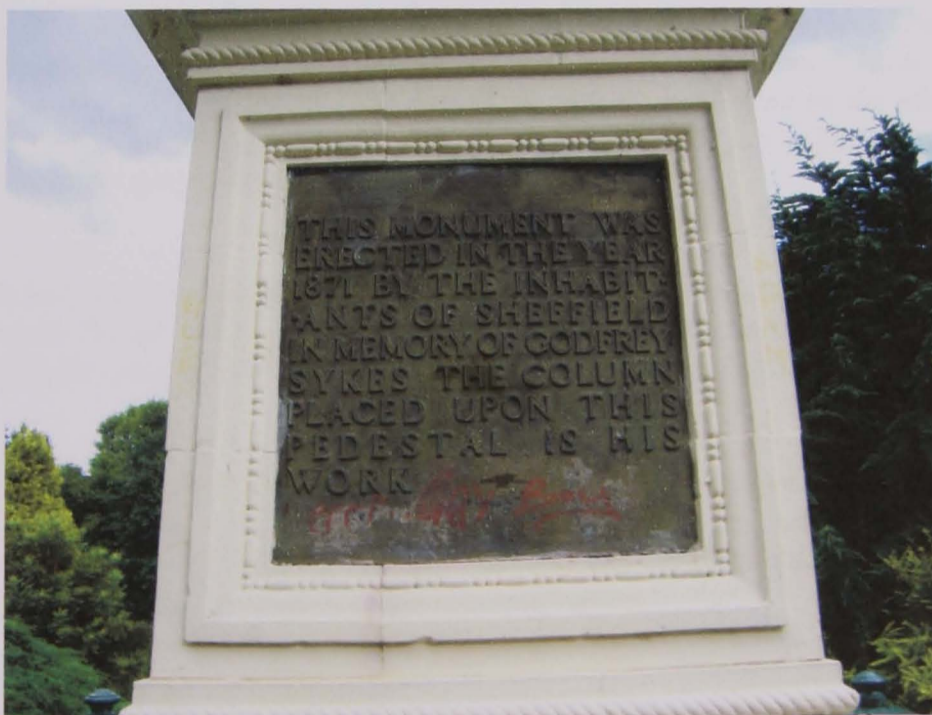


Figure 9.13. Graffiti on memorial in Weston Park, pre renovation

Maintenance of landscaping was seen as important for maintaining the order of green spaces and for the general attractiveness.

J: It's poorly maintained, people have planted a load of stuff, right and now it's left to fend for itself really, so the paths get overgrown and things....but it's (maintenance) important, it's an essential cost of creating an attractive environment.

(John)

A: I think that the wardens are good because it just keeps it all...like in Weston Park it's all been re-landscaped quite a lot and all the plants like arranged in shapes. I mean that's great but if you're going to do that then you need someone to tend it, otherwise after a while it will just become wild...definitely have to look after it.

(Andrew)

C: The only thing that upsets me about it, they do some beautiful planting and then it gets covered with litter, and nobody does anything about it. I mean some of these new plantings in the big Shalesmoor thing where they've put these boulders up and things –it's very attractive, but it'll deteriorate because it isn't maintained sufficiently. I just think what's the point of having all this landscaping if it's not catered for really? , I just presume really that they don't have enough staff.

(Caroline)

A green space could be well designed and have attractive plantings and other features but if it was not maintained then it was not a space that people wanted to spend time in. Littering, graffiti and other incivilities were significant as they were perpetrated by visitors to green space. Interviewees generally constructed this was a problem for which users of space should take more responsibility; although it was very much a problem perpetrated by *other* people. Other users were sometimes constructed as lacking concern for their environment which was exemplified in dropping litter. It was important also for managers of space to keep spaces clean and tidy in order to encourage the user's maintenance of the green space –it was seen as a reciprocal relationship.

G: ...cathedral forecourt, I like that, though it's always so covered in litter and that's just a shame, that people don't respect it a bit more, I think...people don't use[bins] they just drop it, yeah, which is a shame... I don't quite know what you do about it, errm. I know the city centre ambassadors do their best, you know, keep people in control, and I think on the whole the council do quite a good job of coming round and picking up the litter, it's just a bit of a pity that people don't see that space as something to care for.

(Gail)

R: Devonshire Green's only been open for a few months, but so far they seem to be maintaining it, which is of course the key. If they don't maintain it, it will just be horrid, because unfortunately, people don't. I mean chucking litter seems to be normal behaviour (sighs).

(Rose)

V: ...if they are offered something nice and it's kept nice, people will respect it. If it starts to get trashed, then everyone will think oh well and everyone will trash it... Although it costs money to keep cleaning up the litter, it encourages people. I think, eventually people will get the message. If you keep doing it people will get the message, zero tolerance.

(Vivien)

Official maintenance would play the role of presenting the space as something to be looked after rather than something to be trashed; it created an image of space that deserved to be maintained and

was generally viewed as something that was well done by city centre ambassadors and park wardens.



Figure 9.14. Litter in Ponderosa

It was certainly not the case that people thought litter was a problem in all green spaces. It tended to be associated with the central city spaces rather than parks, although informal observation suggests that litter occurred in spaces other than those highlighted. The official managers of spaces were seen to be doing a good job in many spaces particularly the newly renovated Devonshire Green which while some people noted problems with litter, was generally thought to be better managed than had been previously.

D: It looks quite ok for now, plus err, there isn't much littering or anything. So generally I guess that everyone appreciates that there is a green spot there so there isn't really any negative things.
(David)

I: Do you think they are generally well maintained in Sheffield?

A: I don't think, Devonshire Green certainly didn't used to be until recently. I think Weston Park didn't really either, like you know, yeah, err I would say probably not. Recently yes but before that then no. We've got these City Centre Ambassadors.
(Andrew)

C: As a rule I think they are pretty well looked after. Crookes Valley Park always looks very clean and tidy and well looked after. There's never a lot of litter and things actually which is pretty amazing, considering the number of people that use it, it's right next to the road, with loads of people passing through.
(Claire)

9.3.5 Safety concerns

The questionnaire suggested that over 50% of people found the city centre green spaces to be safe with less than 15% thinking they were not safe. This was echoed generally in the results of the interviews. However there were certain caveats, for example, most people stressed that they would not visit spaces at night time. Although people also stated that they would have no reason to visit green spaces at night time so this was perhaps more of a practical issue than a safety one.

The importance of a green space being managed and controlled was raised in reference to keeping a space safe. Green spaces in urban environments were often perceived as places that would attract bad behaviour and thus management is particularly important; if they were not patrolled and organised then they may be used for inappropriate purposes. Green spaces that are left wild in the city, that are not organised for human use, were often deemed to be places where anti-social or criminal behaviour could occur.

R: The trouble with that though is that there are too many people in the city and they lurk about and do weird things in them like kind of sleep there and take drugs and lurk and jump out from behind bushes. I think if they're not managed there is an element of kind of concern that they're a bit wild and scary.

(Rose)

K: You then have the problem that it will attract the wrong type of people if it's not managed. No I think for it to be accessible to everybody there needs to be some sort of management, cos if not you get sort of gang groups that take over that area and then, although on the face of it its looks as though it's accessible, it's not really.

I: Have you ever seen that dominance of gangs?

K: Not in Sheffield, but I'm sure it exists, yeah.

(Kate)

The last quote illustrates the speculative nature of some of these concerns; it was not necessarily something personally experienced but something they believed potentially would happen. Safety concerns related also to the design of space and the possibility that you could get help should you be threatened. Most of the city spaces which were well populated and managed were perceived as generally safe. However, the Ponderosa was singled out as an unsafe place by the couple of interviewees that were aware of it, due to its lack of maintenance and the wildness of the space as well as its large open character.

In addition the lack of design of the space appeared to indicate it was not a cared for space.

L: I still think it's (Devonshire Green) a comfortable enough space, it's transparent isn't it? It's right there, everybody can see it. There's a safety in that, whereas perhaps (Ponderosa) there was nobody around, you know, there was quite a large space between you and people, and, it can be a bit frightening. It can be perceived, even if only emotionally, as being quite threatening.

(Louise)

R: ...we go up to Weston park and to the Ponderosa occasionally, although I'm not that keen on the Ponderosa. I think the Ponderosa is a bit grubby actually and I think it's a bit scary down there cos there are lots of big bushes, lots of litter and you know quite isolated, so I'm not dead keen on that.

(Rose)

Furthermore design in terms of features such as enclosure of trees was cited as having the potential for crime and the risk of being attacked as assailants had places to hide. For example Harriet discusses how she would like to see more trees and vegetation, however then rethinks and suggests that this may make it more unsafe. In this sense there may be competing concerns for desire for enclosure and relaxation and concerns for safety (Jorgensen et al, 2007):

H: I think it would be nice to have like that Peace Garden bit where all the cafes are spilling on to that. That's the only time I would sit somewhere like that in a café or restaurant I think. You know more trees, more sheltered spaces, bits where you couldn't see as many people, and then if you do that, you make it unsafe don't you... people would be, you know, more vulnerable and things.
(Harriet)

K: Devonshire Green is very open. It's very open which is great and I understand for safety reasons you don't want loads of bushes that people can hide in.
(Karen)

It is significant how wilder green spaces were perceived differently in different contexts –in a city centre environment they potentially could be seen to harbour the problems of the city, while wild spaces in the countryside (or even wilder parks, such as Endcliffe) were not construed as dangerous to the same degree and were often valued for their wildness and isolation. This contradiction was recognised by Rose:

R: I don't know why I'd find a derelict kind of and not managed space in the city centre scary in a way which I wouldn't find it in the countryside... I think that's because... well you don't expect it to be managed, in the same way and there aren't that many people. Partly it's a social class thing. Most of what I would call lurky people never go to the countryside (laugh)...but of course that's probably a total fantasy, the countryside is probably swarming with murderers and paedophiles! (laugh) while city centres are probably not... but it's that kind of perception isn't it? that city centres are swarming with paedophiles and murderers, while the country is lovely.
(Rose)

Furthermore, while some people were particularly pragmatic about safety there was concern expressed by some residents for the safety of others, particularly children. This was expressed in, for example, not allowing their child to go out alone or to visit green areas unaccompanied, even if they themselves may have done this when younger.

S: When we were kids, playing together, it was never an issue for our parents. You just knew you could go out and we wouldn't go that far. There was no fear of anything, no risk attached to it at all, whereas now you can't let your kids out of your sight basically, can you? As long as you can see what they're doing that's fine but other than that you couldn't just say 'go and play in the park for an hour and come back', because you just don't know.
(Simon)

K: It's probably changed now, for children, I guess it's a different world isn't it? I guess for parents too, thinking whether kids are able to cycle on their own or anything.
(Kate)

9.4 Other users in green space



Figure 9.15. Outside the cathedral

A considerable amount of discussion could be understood in terms of perceptions revolving around the appropriate usage of spaces as well as who are the appropriate users. Much of this understanding is tied up with concerns over safety. While there were no actual crimes experienced by people in green spaces, we saw previously that people could feel insecure in certain spaces as a result of understandings of particular design or feel of space. The behaviour of or even the presence of certain other users in green spaces may also impact upon how people feel about the spaces.

A: There was a time when there was a group of people that used to use it who were a bit aggressive, kind of like chavs!...but since the problem with that sort of issue, they haven't been back. It's been quite different. There tends to be kind of goth groups now and like skateboarder groups, they're fine, I don't have any problems with them.

(Andrew)

L: Many years ago, my friend and I went down there and there were some children in the park and we'd taken our sons who at the time were around 3 and the children were kind of swearing and you know it was unpleasant and then their parents came and they were also of a similar nature. I think I found it rather intimidating, and perhaps that may be one of the reasons now, I don't think even that I register it but its a bit seedy....I've never felt the same way about that park, and I have never, ever taken my son back there and I'd much rather take my son up to the Bole Hill Park and that's obviously some trek from here, but I'd rather do that than use that space.

(Louise)

9.4.1 Street drinkers and homeless people

Drinkers and homeless people (often grouped together in people's understanding) were frequently perceived as problematic in green space. People often cited occasions when they felt uncomfortable, although not necessarily frightened, by the presence of street drinkers:

S: I tell you where you do tend to find drunks or drinkers, that's the space outside the cathedral, you know the benches there by the supertram stop... It can be quite intimidating. If I ever see a group of people that might be unsavoury for whatever reason I tend to cross the road. I make a conscious effort not to walk through a group or walk past a group where you might get involved in anything, not that you would but, I always kind of hedge my bets and try and move away, errm, because you just never know these days do you?

(Simon)

P:..it feels like nice and normal and friendly and that, you don't get the impression that it's like people sat there drinking in the park or anything like that, no, yeah it's quite nice in that respect

I: Have you seen people drinking in other parks?

P: (laugh) err, myself no, I was just thinking back to when I lived in Chapel Town and the park there was a bit rough, and there was people hanging around like, graffiti and drinking and all that, and errm, but yeah that's, I suppose that's sort of what sticks in my mind from the past really, but nothing like that up here.

(Pete)

In these quotes drinkers are often constructed as negatively affecting people's experiences of green space simply by their presence and the quote by Pete illustrates the totally different feel of a space that is established in the absence of drinking and other associated behaviours. The use of spaces by homeless people and drinkers was generally thought to have reduced with the development of spaces and for some people it was not an issue in the spaces they visited although some suggested it was simply displacement from space to space as they were developed:

S: Before the Peace Gardens were built that space was occupied, it didn't look anything like it looks like now. It was flat. There were some green lawns and some beds, and it was filled with people, drunks basically. Nobody went into it at all. It was just drunk people in it. Now the sun comes out and it's filled with people having their lunch and in the Winter Garden as well and Sheaf Square.

(Stewart)

Note that in all the quotes drinkers are constructed as unwelcome users, they are not supposed to be in green spaces, they are 'out of place'. This is most salient in Stewart's comment about no-one visiting the Peace Gardens, when he meant no one who *should* be using the spaces. It would be mistaken to suggest however that people were overly worried about anti-social behaviour in spaces or felt threatened in green space. For some it was not something that had experienced in green spaces they visited and for others who did come across it they generally sought to minimise the experience.

C: Well I haven't come across that (drinking in spaces), but I don't go up to Devonshire Green very often and I think that's where you get that, isn't it? I don't go up there in the evening in any case, but I'm not aware of that in any of the spaces around here.

(Caroline)

P: I suppose in terms of anything I dislike, errm I suppose the main thing occasionally both in the Devonshire Green and Crookes Valley Park is you sometimes get hassled by people, errm, homeless people or whatever. I suppose, that makes it a bit, you seem a bit more anxious and on edge than you might be. I don't know why people seem attracted to those kinds of places. Maybe if they're asking for money they know that there's going to be lots of people there, maybe that's the reason. (They're) not experiences that would make me not want to go there again, or anything like that.

(Pete)

Rose is also dismissive of claims that spaces are really affected by drug users or street drinkers and even that they are a problem that can be exaggerated in people's imagination.

R: (child) goes down to the park on his own to play with his friends, I've told him, you know if anybody lurky comes up to you, you know, just kick them and run away(laugh) And in a way, we've talked about what's an alcoholic, he knows what an alcoholic is, so you know he knows. One of the reasons I wanted him to go to the school there is so that he knows the other people playing in the park, so that he's not just on his own. I wouldn't let him go down there if it was dangerous or frightening. I think (husband) did see people shooting up on Gell Street Park once and he rang the school or rang someone, so I'm not saying it doesn't happen, but it's not really, it's not a problem.

(Rose)

John for example was concerned to stress the idea that wardens should not move people on, as they were doing no harm and probably had no where else to go.

J: well they shouldn't (be moved on). I know folk sit in Gell Street Park and have a can, a little crowd sit on the benches there, maybe five or six drinking during the day and so on and so forth. People who are dysfunctional with lots of issues and very chaotic lives, they are still people and err, the provision for homeless people in the city centre is abysmal...There are just not enough beds.

(John)



Figure 9.16. Many different users in Endcliffe Park

9.4.2 Young people in green space

Another group who were often singled out as problematic in green spaces were groups of teenagers. Many people said that groups of teenagers were off-putting and could detract from their enjoyment of spaces. Again they were often constructed as 'hanging around' with nothing to do.

A: You usually get big groups of teenagers hang round there. But err, I mean I never really felt threatened or anything, so errm, but it's slightly off-putting.

(Amy)

R: I think large groups of young people hanging around can be quite threatening or appear threatening, sometimes it can, and sometimes it can't, I mean sometimes they're having a good time, playing frisbees or whatever, but sometimes they're sitting around, they're drinking, drinking beer and you know, that, I think the combination of young people and alcohol is not really a good one!

(Rose)

There was a seemingly contradictory belief for some people however that groups hanging around

in green space stopped them from hanging about on streets and causing more trouble.

G: If it provides somewhere for people to play and sit and talk then it's performing a function, it's taking them away from playing outside of your door, isn't it you see. So it's performing a good function that you can benefit from even without going there...I mean look at all the people in the Peace Gardens, I mean there's lots of kids running in and out, making fools of themselves in the water, but if they weren't doing that they'd probably be spray painting somebody's door.
(George)

V: I mean one of our problems is youth, young people, err, a bit sort of nothing to do, I mean the other point that skateboard park, you see that's great for kids, they can meet up with a purpose, not just meet up and just sit around and do nothing and just drink and all the rest of it...., because there's nothing really for kids in Sheffield city centre.then there's the basketball court in the back of the school and you get kids playing basketball there, so that's good, because kids need something to do, they are not always going to think themselves, they are not all going to be creative, but while they are playing basketball they are not mugging old ladies are they? or drinking or something.
(Vivien)

Therefore for some residents it was considered beneficial that young people did use green spaces as it kept them away from the streets where it was perceived that they could have a greater impact upon other people. As we saw in the previous chapter green spaces were often thought of as spaces which were particularly important for young children as places to play. This may reflect a dichotomous construction of young people between young children as innocent rightful users of space and older children as potential trouble makers (Valentine, 1995)

However it is important to recognise that for some people, even young children could potentially make a space less pleasant for adults who wanted a relaxing experience. While many people saw green spaces as important for children they could be personally put off using spaces by the presence of young children. For example:

K: I think for me if there were lots of little children running around screaming then I wouldn't find it that relaxing and sometimes in Endcliffe Park, particularly where the playground area is I just think let's just get on, but I think on the whole, yep, definitely, it's good.
(Kate)

It should not be construed therefore that there was an unequivocal distinction between teenagers as troublemakers and children as rightful users; the example of children using the fountains in the Peace Gardens is an example of competing perspectives on a single activity and group:

K: I love (kids playing in the fountain) I wish I was more like a kid, more like a kid age and then maybe I could get away with it, I wanted to get my niece to do it when she came to visit but it was a bit too cold, actually she was running around and fell in one of those water things anyway (laugh).
(Karen)

C: it would be nice to go and sit in the Peace Gardens, but then there's hundreds of people around as soon as the sun comes out, and kids running in and out of the fountains, splashing water about, but err, you can get a bit of peace here (suburban park), it's nice.
(Claire)

S: Actually when the Peace Gardens first opened in its current state and the water was on and the kids were running through it in just their underwear or whatever...like their families had just come to town, and said yeah just run through it and I did wonder whether that was right, because I didn't know whether it was giving the wrong impression, because I thought you know it's a fantastic space and people are abusing it by running through it.... its not meant to be run through it's a water feature. But I think as time's gone on and I think the council must just have accepted it, that it's going to happen, just go with the flow and just make sure it's patrolled and that people are safe, so I've kind of come round to the fact that people are doing it now and it's part of the Peace Gardens to see people in and out of the fountains. At first I didn't like it; I didn't feel that it was right, so that's funny how my perceptions have changed.

(Simon)

People perceived the same activity in different ways, in light of their own understandings of how spaces should be used and how they wanted to use them. The quote by Simon illustrates the lack of absolute distinction between appropriate and inappropriate usages of spaces and how this can even vary over time, even if initially it was thought to be problematic. It also demonstrates how a particular usage of space can become established as normal over time.



Figure 9.17. The Peace Gardens fountain

9.4.3 Positive interactions

Of course people also gained pleasure from their interactions with other people in spaces and populated spaces could be perceived as being safer.

E: yeah, there's lots of people walking their dogs, there's a BMX track and stuff, so you just pass so many people and stuff, it is nice to kind of walk around and people will say hello, you chat to people about their manic hounds, make friends with the dog that kind of comes running up to you and then you get talking to the owner, so yeah it's kind of friendly, it's really nice, I'm really enjoying it.

(Claire)

K: Crookes Valley, I like the kind of walks. The pond I like that being there, I like that in an evening actually. I like the Dam House it actually feels more occupied so maybe that makes me feel safe.

(Karen)

K: It's just that whole convenience and errm, safety, because I think when I'm running, safety is a bit more of an issue to me and just knowing that I'm going to see more people running and errm, and all dog walking or whatever...I am always a bit more cautious if it is a lot quieter. If it was a rainy day, there are always less people out, so I'm always a bit more, like my ipod is a bit lower on volume, you know just so that err I've got awareness of what's going on around me. So I think as a runner you are much more vulnerable to things like that.

(Kate)

While it was observed in the previous section that people were concerned about the presence of certain groups in green space there was a general concern that access to good quality spaces should be equitable. Spaces were perceived to cater for different kinds of people in terms of both provision of facilities and atmosphere. Devonshire Green for example, was often thought of as a young persons' space, which was often contrasted with other spaces outside the city centre which were seen to be more family orientated.

D: It's only basically students there, I don't see any family or elders. I'm not sure why, but so far every day walking past Devonshire Green I don't see older generations there, it's always students there. I'm not sure why, but that's what happens.

(David)

C: I don't think in like Devonshire Green there are any benches whereas young people might be quite happy to go and sit on the grass, I can't imagine there are many older people wanting to do that. Errm, so maybe that's part of it and again at the Peace Gardens there always a lot of young people there, errm, so again perhaps older people don't feel as comfortable going,

(Claire)

Interviewees were also concerned that people of all backgrounds should be able to enjoy spaces. The Ponderosa was mentioned by a couple of people as a place that was not kept well managed because of its location adjacent to social housing and they felt it was seen as less of a priority to official managers.

R: Weston Park and Crookes Valley Park lovely, middle class, white people and then you've got Edward Street flats and they don't give a toss about them, so the Ponderosa is left to kind of..., well I think people love green spaces, I think they want to use them. I just think it's a terrible shame that, you know, some people have better green spaces to sit in than others. I think you know the Ponderosa is you know, much better than nothing, it's much better. It's great they've got such a big space there, and it's got some quite nice play equipment for the kids, but again it's not very well-maintained. It's been here for ages,...they're just not maintaining it properly.

(Rose)

L: So why isn't it filled with some lovely trees or I'm just thinking about sculptures even. You know I think they're lovely, even the really modern ones, the steel sculptures, you can still do it. You don't need something that needs a huge amount of maintenance. There could still be something, perhaps with some involvement from the community.

(Louise)

This section has illustrated how people perceive other peoples' usage of space in the city centre, while they were concerned that certain groups may impact upon their own usage there was also a desire to see people in the city centre catered for.

9.5 Frequency of visit to local green space and perception of green space

This section explores how the way people feel about green spaces in their local area relates to how often they use the space.

Spearman's Rhos were conducted that suggest there are generally small positive correlations between the perceptions of spaces and how often people used them (Table 9.3). There is no correlation between green spaces being in a good condition and the frequency of people using them.

Table 9.3. Relationship between frequency of usage and perceptions of local green space

Perception	Spearman's rho	P value
Enough	0.212	0.002
Good condition	0.120	0.078
Well equipped	0.204	0.002
Suitable for children to play	0.208	0.002
Too small	0.165	0.015
Safe	0.219	0.001
Attractive	0.219	0.001

These results can be explained by different factors. Firstly frequency is not related to preferences for spaces. Many people suggested preferences for spaces further afield such as the Peak District but these were more difficult to get to. Secondly, frequency of usage only examines one aspect of usage; in Chapter 7 it was highlighted that people choose to spend time in some spaces, whereas others are spaces to walk through. Thirdly the questionnaire asks about perception of all local green space. Questioning about all spaces means that a general picture is obtained, rather than specific understanding of the intricacies of which spaces are used for and why.

Throughout the results of the thesis and in this chapter it has become apparent that people do not view or even use the spaces in similar ways so while there may be an association between perceptions of a particular space and the way people use it, it does not necessarily follow that this will show up in relation to all local spaces. While this has been covered throughout the chapter it is worth providing a brief concrete example of the complex relationship between perceptions and usage. The following quotes refer to Devonshire Green and demonstrate how people may change their usage as a result of varying factors. For example, a changed appraisal of the design and perceived safety as well as other factors which are not related to perceptions, such as proximity to the green space.

C: We did use it, when I was at Uni, kind of way back, we did used to go there and sit out sometimes. If we'd been shopping or something, we'd have a little wander through. But again when it was just a kind of slopy bit of grass and the skatepark at the bottom, it wasn't really that inviting which I think they have improved, kind of making it look like a kind of seating area and that kind of thing. I think it is nice to lease that bit to the Forum, to just kind of expand their outside space cos again that has always been really popular, and really there's not that many kind of bars and stuff with nice beer gardens in the city centre, so I think that's nice that they've kept that space, open space, available for that.

(Claire)

K: I think the problem with it before is that it had errm, so many footpaths that were , ...you know mud footpaths where people had used them and I think, when it's nice and dry that's fine but when it's muddy you know, you get mud everywhere. I think the way they've paved it is very good, and I think it's much better lit, errm, so at 9 o'clock at night when I'm walking home now I always walk through the park, whether it's light or dark, whereas before errm, it wasn't that well lit so I'd always walk round the pavement area, and so, its much better. They've sort of extended the forum out so that there's always lots of people there.

(Kate)

S: I think Devonshire Green, I don't tend to use it now, I did use it when I worked on West Street – it depends where I'm working! (laughing)

(Simon)

These quotes illustrate how people change their usage of green spaces for example as a result of moving workplace, or more relevant to this chapter the development and improvement of space meant it was a more pleasant place to stay and thereby people were likely to use it more.

9.6 Key findings

- People have different views about the quality and quantity of green space in the city centre, although quantity was generally perceived more negatively than quality; quantity was tied up with ideas of expectation of city environment and also perceptions of Sheffield as a green city.
- People were generally positive about the redevelopment and regeneration of green spaces in and around the city centre, although they were concerned to maintain as much green as possible.
- People valued the variety of green space in terms of appearance and facilities offered.
- Maintenance was a key issue in the perceived attractiveness and quality of green space. This was the responsibility of both users and wardens/ambassadors whose presence were generally welcomed.
- People generally felt safe in green spaces, although concern was often expressed about design of some spaces as well the behaviour of other users in the green space.
- Ideas of 'appropriate' usage of green space influenced perceptions of safety and general perceptions of other users but were subject to change.
- There is little relationship between frequency of usage of green space and overall perceptions of green space.

Chapter 10 Discussion and Conclusions

This discussion explores the main findings from the research. This broadly reflects the chapter structure of the results chapters, although not exclusively, but highlights the most interesting and important findings from the research and how they relate to and perhaps enhance current literature.

Section 10.1 examines the results in relation to city centre living. 10.2 discusses how definitions of green spaces were utilised and understood. 10.3 explains key findings regarding the usage of green spaces in Sheffield. This includes consideration of the factors that influence and/or are related to people's usage, as well as a general understanding of the ways in which people used green spaces.

10.4 discusses how people understand the benefits provided by green space and possible relationships with health and wellbeing, while 10.5 explores the importance that people attributed to green space. 10.6 explores perceptions and experiences of green spaces including particular safety considerations and concerns about inappropriate behaviour and incivilities in green spaces.

10.7 focuses on the methodological issues raised by this research, including any limitations. 10.8 concludes this chapter by summarising the key findings of the research and considering the policy implications, in addition to providing suggestions for future research.

10.1 City centre living

Much previous research and theoretical interest in city centre living has focused upon gentrification. Broadly speaking gentrification involves the updating and renewal of existing housing by middle class people and the displacement of working class populations into different areas. It is often argued that people are concerned to construct a sense of distinction through their housing and lifestyle choices, which are contrasted with those who are presumed to live 'conventional' lifestyles (Allen, 2007).

Following this understanding, the city centre living that takes place within cities like Sheffield cannot strictly be regarded as gentrification, because like many cities outside London, Sheffield did not have significant pre-existing communities within the city centre (Nathan & Urwin, 2005). In Sheffield city centre people principally live in conversions of industrial buildings, new builds and assorted Housing Association or Local Authority buildings which vary in age. New residential populations have not therefore displaced existing populations as there were not such populations to begin with. This does not mean that elements of the concept of gentrification are irrelevant; as the idea of constructing distinction within lifestyle choices and seeing oneself as innovative and creative in housing and lifestyle choice still has relevance.

As a caveat there is disagreement over the application of the term gentrification for new build developments; with some researchers arguing that such developments represent changing

experiences of a phenomenon over time and thus constitute a new stage of gentrification (Davidson & Lees, 2005). For other researchers the essential characteristic of gentrification is displacement, and thus the term cannot be applied (Cameron, 1992, 2003, Lambert & Boddy, 2002).

Arguably this division is more about semantics rather than any significant disagreement over the experiences of city centre residents; documenting such experiences are arguably more important than what a phenomenon is labelled. However, some researchers (Tallon & Bromley 2004) have suggested that a focus on gentrification can act to exclude any differences between residents, which makes it perhaps pertinent to consider this new(er) form of city living as non-gentrifying.

With the research focus primarily upon gentrification, there has been less research that focuses on cities outside London. Increasingly however, there are studies of cities which examine the reasons for moving to and from the city centre from the point of view of city centre residents. The remainder of this section of the thesis explores how this research relates to the findings of this study.

10.1.1 Advantages and disadvantages

Previous studies have found the importance of convenience as a reason for and advantage of, living in the city centre. This takes many forms and refers generally to greater accessibility of all facilities and amenities on offer as well as the ability to access public transport and proximity to work places (Heath, 2001, Oaks & McKee, 1997, Nathan & Urwin, 2005). People also valued cultural concerns as well as practicality for example, access to nightlife, bars and restaurants and cultural amenities, such as theatres and museums. This was echoed in my research with convenience, being a prime advantage suggested by interviewees, particularly in terms of access and proximity to work as well as ease of access to amenities. Specifically the ability to 'pop in and out' from home to the city centre at short notice was cited as an important advantage. Many people, although not all, also valued the buzz and vibrancy of the city centre.

While convenience and the buzz/lifestyle of the city tended to be one of the main advantages of the city centre, it was not necessarily a desire for this that precipitated a move to the city centre. It tended to be a change in circumstance that prompted the decision to move into the city centre. There was therefore a difference between what attracted people to the city centre and what kept them there (Seo, 2002). Changing jobs or changing relationships or other personal circumstances tended to prompt a move to the city centre (as well as out of the city centre). This has congruence with Nathan & Urwin's (2005) notion of tradeoffs, where changes in lifestyle situation prompted the desire to move and meant people were no longer willing to put up with the disadvantages of city centre living anymore.

Disadvantages of living in the city centre were similar to those found in previous research, including noise, traffic concerns (Heath, 2001) as well as features specific to particular locales

and even to particular buildings. Significantly crime and safety was not generally a significant concern and people sought to present Sheffield city centre as a safe place to be. This was often contrasted to other cities in the area and people highlighted local discourses which speak of Sheffield as a particularly safe city.

Issues around the creation and maintenance of community as well as the development of the city centre were often at the forefront in discussions of living in the city centre. There were of course positive elements to the development of the city centre particularly in terms of the appearance of the city centre and it being a pleasant and attractive place to live.

However there were downsides for some residents and this was often linked to age and lifestyle related discourse which constructed the ideal or appropriate version of city centre living. For younger residents, who may be classified as 'city centre tourists' (Allen, 2007) the city centre was a place to reside in while they were younger and then moved out of, when they wanted to settle down. For some older and permanent residents this understanding of city centre living was perceived as the conceptualisation shared by planners and the city council; who constructed developments and amenities in line with such an understanding. This was often perceived to have a negative impact upon the lives of people who did not fit in with this stereotype and encouraged a particularly narrow way of living. This has been recognised previously by Seo (2002) who suggests that the provision of a large number of small size dwellings and also a lack of family facilities are important influences on who chooses to live in the city centre. He suggests small dwellings, fetching high prices and with no outside spaces for children could directly prevent people with children from moving to the city centre. In addition, when people who were living in the city centre had children, they were likely to have to move out of the city centre to find places that do have suitable facilities (Seo, 2002). There were certainly a few residents, especially those with children, within my research, who felt under informal pressure to move out of the city centre or at least felt they were marginalized from the generic view of the city centre.

Allen (2007) argues that research and policy discussion of city centre living has a tendency to categorise city centre dwellers as a homogenous group. While there were tendencies, for example, we found over half of questionnaire respondents were under 35 and had lived in the city centre for a short time, this was not the whole story. Two particular areas of difference, found during the in-depth interviews were those that related to the conception of community and most specifically the value of the city centre which went beyond simple demographic characterisations.

10.1.2 Difference between residents

While all respondents valued convenience, in line with findings of previous research there were distinctions between people who sought out city centre living because of practical concerns, for example, living near work, and others who valued the essential character of the city centre (e.g. Tallon & Bromley, 2004, Young et al. 2006). The latter was expressed for

example; in being able to lead a particular kind of lifestyle, or having strong opinions about the value of living in vibrant city centres, as opposed to suburban environments.

For Tallon and Bromley (2004) it was principally younger people who valued lifestyle over convenience, often participating in vibrant city nightlife. However for this study, echoing Allen (2007), many of the older residents also showed interest in a lifestyle element of the city centre, citing the ‘continental’ and ‘cosmopolitan’ lifestyle which was associated with a café rather than an alcohol based culture. Additionally they often simply stressed the general valuing of the city centre in comparison to the suburbs. Concerns about the stylishness and value of the city centre which Bromley et al (2007) suggest principally affected younger residents, were spread across many different ages within my interviews. Although of course the age distribution may reflect methodological differences between studies, as the research of Bromley et al (2007) was based upon questionnaire and Census data analysis.

The second and related distinction is the extent of commitment that people showed to living in the city centre. As seen above, for many of the younger people living in the city centre it was to be a transitory experience associated with being young and single and when they felt that they would ‘settle down’ or have children, they believed that they would move out of the city centre. This was related to practical concerns over the provision of facilities and safety of the city for children, but also an underlying belief in the appropriateness of living in the city centre with children (Nathan & Urwin, 2005).

For the older residents commitment tended to be greater and for some, living in the city centre was something that was strongly identified with and something they wanted to do for as long as possible. Perhaps the difficulty felt by some people opposing the generic idea of city centre living meant that they had to have a greater commitment to the city centre. For those residents who fitted with Allen’s (2007) classification of ‘successful agers,’ they had developed a new commitment to the city centre and moved back into the city centre after a period of living in the suburbs or other environments.

10.2 Defining green space

There are two primary issues with regard to the defining of green space that emerged during the conduct of the research. Firstly that there are many different conceptualisations and understandings of the term itself, amongst both writers and researchers for whom it is often a short hand that encompasses many different types of green, although this in itself is varied. For example researchers may define green space as all green areas of natural growth (e.g. Dunnett et al, 2002), or restrict it to publicly accessible land (e.g. Burgess et al, 1988) and for some researchers this may limit space investigated to a specific size of space, for example, two hectares (Hillsdon et al, 2007). Other definitions are of course employed and in addition research may fall under the umbrella of ‘green space research’ without the actual use of the term by the authors.

A broad conceptualisation was employed for this questionnaire which restricted the spaces of interest to those in and around the city centre which were publicly accessible (see chapter 4) although size was not an issue. This generally proved to be a worthwhile definition as there was generally little mention of other spaces within the returned questionnaires that had not been listed. This arguably suggests that people felt that spaces that were important in that context were adequately addressed.

The mixed method approach allowed for people's subjective understandings to be employed through the interview discussion and the interviews provided insight into possible understandings by the general public of the term green space. People generally stressed that it was not a term that they would use in everyday life although it did have some meaning for them. This does not necessarily accord with those definitions of researchers, the city council, or indeed with other interviewees. Thus people may have differing definitions and understandings of the term itself which suggests the difficulty of employing the term in public discourse without qualification. Such differing perceptions have been suggested previously by Pinder et al (2009).

Examples of the points of contestation over the definitions were provided in chapter 7 and included the amount of greenery if a space is predominately green or not; the differences between urban and countryside space and the importance of 'naturalness' versus a manmade space. The only area where there was general agreement was the belief that public accessibility was important for it to be called 'green space' which may differ from some official designations for example, the Generalised Land Use Database (see e.g. Dunnett et al 2002 or Mitchell & Popham, 2008). This however did not diminish the value of areas of green and natural land which cannot be physically accessed. A term such as 'greenery' may illustrate the appearance of natural vegetation within discrete spaces and also that on the streets, which may be neither accessible or usable; and was used within this thesis to indicate green natural features such as trees, flowers, bushes on streets and within green or public spaces.

The second significant finding was how different people's perceptions of various green spaces were, even within a relatively small geographical area in and around the city centre. There could not be one unified version of 'green spaces' that would easily be understood and could be treated in the same way. This was revealed in the interview discussions which did not focus on generic green space but rather sought consideration of the individual spaces and thus revealed that they are used and viewed very differently by people. For example, in terms of how people viewed differences between local and non-local space or even differences between space in the city centre. The difference between spaces is highlighted throughout this chapter.

10.3 Usage of green spaces

Previous research has generally used questionnaire surveys in order to elucidate usage patterns of green spaces. These are often administered in site-based and less often household questionnaires. From this questionnaire survey the activities predominantly undertaken by people in green spaces were walking for pleasure, sitting and relaxing and walking for transport. Other important activities performed were socialising with people, jogging/running, observing wildlife and greenery, picnicking and watching/playing with children. People also visited green spaces for other reasons including to get fresh air, to relax/reduce stress, for peace and quiet, to be in nature and to escape from home. Reasons with fewer responses, included visiting to observe beauty, escaping from the city and for inspiration. Previous research has found similar preponderance of more leisurely, passive recreational activities as prime motivators of using space (Conway, 1999, Dunnett et al, 2002). Furthermore, other reasons tended to revolve around similar relaxation and being away from the busyness of the city which have also been reported in questionnaire surveys (Chiesura, 2004) and will be explored in more detail in the benefits section (10.4).

A detailed exploration of people's usage of space was elicited through the questions which addressed people's usage of their most frequently used space. The value of having spaces within a local area has been suggested by previous researchers. For example, Ward Thompson et al (2005) found that regular usage was related strongly to the proximity of woodlands.

'these findings reinforce the value of community and urban woodlands because proximity is the key factor for regular woodland use'

(Ward Thompson et al, 2005)

Van Herzele & Weidemann (2003) suggest that close proximity means that people will visit frequently and distance is in direct inverse proportion to frequency of usage; and Coles & Bussey (2000) found that people preferred to use woodlands within five minutes of their home. The importance of nearby and the easy access to green spaces was replicated in this research, for example, with the finding that over half of people took less than five minutes to visit their most used space, and over 80% took ten minutes or less. Less than 5% of people said that they took longer than fifteen minutes to visit their most used green space. This was also related to how they got to the space with over 85% of people visiting their most used green space solely on foot, while around 10% combined being on foot with other forms of transport. This highlights the importance of the proximity of spaces for their regular usage.

Furthermore, people also tended to visit the most used spaces for a short amount of time, with passing through being the most common way of using spaces. Nearly 90% said that they would stay less than an hour in their most frequently used space and only 2.5% of people would stay in the space they used most often for two or more hours. On a typical visit, people also tended to use these spaces alone. It must be stressed that these findings refer to the most used spaces, and that this produces a particular view that is not necessarily reflective of usage of all spaces.

Echoing the research of Burgess et al (1988) through the interviews it became apparent that much of the usage was green spaces being integrated within routine if not everyday life; for example, walking to work, stopping in a space for a lunch break or a break from shopping. The interviews also elucidated that people obtained considerable pleasure from this small contact with green spaces and often made an effort to specifically walk through spaces rather than taking a shorter route. This was for short journeys in the city centre as well as those into the suburbs.

People often stopped in city spaces and sometimes those just outside such as Weston or Crookes Valley Park, in particular, for a 'break in the day', depending upon the situation of their work place. This offered a space to relax and get away from the work environment for a short while. The pleasure gained from short stops would not necessarily have been apparent from questionnaires alone and reinforces the value of mixed methods enhancing understanding of the usage of space.

Thus, people felt very differently about different spaces, in terms for example, what they used them for, and their quality. From the questionnaire it was elicited that the two most frequently used spaces were the two largest spaces within the city centre boundary (categorised broadly as within the ring road). These spaces appeared to be generally used for a shorter amount of time and more likely to be walked to than the next most frequently used green space, the Botanical Gardens. Due to the small number of respondents indicating that they used other spaces most frequently it is difficult to draw any definitive conclusions, however the results are suggestive that spaces are used differently.

While the questionnaire highlighted the different usage patterns, the interviews allowed for understanding of differences in why people used the green spaces in different ways. Various green spaces were perceived to have different functions and different atmospheres, for example. In addition, green spaces that were further away or harder to get to were generally more likely to be construed as destinations. The differences between local and non-local spaces highlighted the interesting factor that favourite green spaces were not necessarily the most used green spaces, and amount of usage did not indicate the value of the spaces to residents of the city centre.

A small amount of research has demonstrated previously that usage of green spaces is not necessarily associated with their value. Tyrvaïnen et al (2007) found that the most used green spaces were not necessarily the favourite spaces, and that two thirds of respondents in their study cited a green space outside their area as their favourite one. Being in proximity to a green space is a major factor in frequency of usage, however it does not follow that people use it because they prefer it. This has been echoed by Ward Thompson et al (2005) who found that people who felt most at home in woodlands were people who visited weekly or monthly and that daily visitors felt no more at home than people who visited once a month. There is the suggestion that this is due to the fact that people who visit daily, visit to walk and do that

because it is a routine, whereas people who go less often visit because it has meaning for them (Ward Thompson et al, 2005).

This was partially echoed in my research when it was found that people thought spaces were important even if they did not use them with great frequency. The reasons could be, firstly because daily or regular usage could have a different purpose to a less frequent visit and also the interesting point that people considered the value of the green spaces for others even if they did not use them themselves, which will be explored in more detail later. In terms of preferring green space further afield, many people said that they enjoyed further away parks and the proximity of the Peak District was often singled out as a particular advantage of living in Sheffield. People regularly stated that they went out of their way to visit these and to go walking. They were considered as destinations, whereas city centre spaces were more often spaces for short visits and for passing through. Practical reasons, such as time and access to transport were cited as the rationale for only visiting the Peak District for an occasional and perhaps special experience. Providing more frequent and reliable public transport to the Peak District would have been welcomed by many interviewees.

However, while many people said they preferred green space further afield, this was not the case for all people, and almost all respondents said they found using the green spaces in the city centre to be important. Having a preference for a green space further afield did not diminish the value of green spaces on their doorstep, particularly if the spaces further afield were difficult to reach.

10.3.1 Physical activity

Previous research findings have been mixed in the role of green space in the promotion of physical activity, which will be discussed in greater detail in the physical wellbeing section (10.4.1). As was suggested previously, people most often used green space for more casual leisurely activities than specifically for physical exercise. However, the questions referring specifically to physical activity allowed for an observation of whether there was a relationship between doing physical activity in green spaces and greater usage of green space.

It was found that there was no association between regularity of walking for thirty minutes or more and the usage of green space; suggesting that green space does not play a role in achieving recommended levels of walking. Furthermore, when people were asked where they did their walking there was a significant correlation between walking for thirty minutes, five times per week and walking along the streets (people walked more on streets) and the countryside (people walked less in the countryside). This makes intuitive sense due to where people spend most of their time.

The qualitative information about physical activity allows us to see the importance of green space, even if it does not play a significant role in terms of achieving recommended levels of physical activity. There was also no association between the frequency of other forms of

physical activity and frequency of visits to green spaces suggesting that green space may not play a major role in promoting physical activity on a population level.

10.3.2 User groups

People who walked their dog visited on average more than people who used spaces for other activities; results showed that on average, this was daily. This echoes findings of Ward Thompson et al (2004, 2005) in their research into woodlands usage in Scotland. However, as there were only a small number of people who walked their dogs in my research it made generalisation difficult. People who watched/ played with children also visited more often which concurs with Greenhalgh and Wolpole (1996) who found people most frequently visited green space to accompany children. Visiting more frequently was also done by those who partook in organised activities. This may, therefore, be a way of encouraging people to use green spaces more often. Observing wildlife and greenery also meant people visited with more frequency.

There were no demographic or personal characteristics that were related to using green space more often, unlike previous research results which have suggested possible age, gender and ethnic groups differences (Ward Thompson et al, 2005, 2004; Payne et al, 2002; Tinsley et al, 2002, Gobster et al, 2002).

There were certain differences that related characteristics to other attributes of the visit, for example in terms of who they visited with. It was found that older people were less likely to visit with friends, while people in the youngest age group were most likely to do this and people in the 25-34 group were more likely to visit with a partner or spouse. Younger people were also less likely to visit with children while older people were more likely to visit with children. This appears to reflect who respondents spent most time with –younger people are less likely to have children and to be married or be in a partnership. There were no other associations between personal characteristics and who they visited green spaces with.

Similar differences were linked to age with activities that were undertaken in spaces; for example the younger group (16-44) were less likely to watch /play with children and observe wildlife/greenery and more likely to use green spaces to meet/socialise with people. Age was the only personal characteristic which was found to be related to different activities.

10.3.3 Children and young people

Research has suggested that parks and open space are generally considered by park users and park officials to be important places for children to play (Greenhalgh & Wolpole, 1996). Accompanying children to play was cited as the single most important reason to visit the park in Greenhalgh & Wolpole's (1996) research. This finding was not replicated in this study, due partly, to the small number of people with children in the study area that were interviewed and also the fact that the questionnaires did not ask people to rank importance of activities.

However, it is important to examine whether green spaces still play an important role for children and for the adults accompanying them. Three different analyses of quantitative data that relate to how having children relates to usage of green space were conducted. Firstly whether people had children living in the house, secondly whether they watched and /or played with children in parks, and thirdly, whether they visited with children. All of these were looking at slightly different elements and were not assumed to yield the same results.

The results found that people with children in the house visited local green spaces more frequently, but not green spaces outside the local area. This reinforces the value of having local green space. Similar findings were found with watching/playing with children in the space. When people watched or played with children they visited on average 4-6 times per week compared with people who didn't visit with children, who used the space on average 1-3 times per week. People also stayed longer, on average from thirty minutes to one hour compared to people who do not visit with children, who on a typical visit stayed on average less than thirty minutes. The findings about who visited were different which may reflect how the question was constructed as people could indicate visiting with more than one person on a typical visit.

As well as examining visiting with children it was felt relevant to see if visiting with any other groups, or alone; had an impact upon usage of space in terms of how often they were visited and how long people stayed. There appeared to be no real differences in how frequently respondents visited most used space; the only marginally significant result was with a partner/spouse. Length of stay appeared to demonstrate more difference. People who visited alone stayed on average for a shorter amount of time than others, whereas people who visited with children stayed on average for longer, as did people who visited with friends. This intuitively makes sense as people who are having a social experience are likely to view it as a place to stay for longer, and the alone category includes people who pass through more on their way to other places.

10.4 Benefits of green space

Within my research there was a tendency for people to perceive green spaces as places for multiple benefits, not simply one type of benefit. People often perceived that they gained different benefits at varying times and also that different benefits may arise in different individual spaces. These benefits can be broadly categorised into social, mental and physical benefits although there is considerable overlap and interaction between them. People also derived a general sense of pleasure, enjoyment and satisfaction which concurs with Burgess et al (1988).

Previous research results differ in the priority ascribed to the different benefits although this was perhaps partly to do with the questions asked and in the case of quantitative research the answer options given. For example, respondents in Chiesura's (2004) questionnaire survey reported that green spaces were spaces of relaxation and stress reduction and also places that

encouraged social interaction with friends and family. Sanesi & Chiarello (2006) found leisure and recreation as well as playing with children to be important, however they considered the most important benefit was the improvement of climatic conditions. Macnaghten & Urry's qualitative focus groups, found different groups perceived that being in woodlands gave you alternative benefits ranging from contact with nature to socialising with families (Macnaghten & Urry, 2000).

10.4.1 Physical wellbeing

The prime way in which physical wellbeing is understood to be enhanced through the use of green spaces is through exercise. Within previous research there are very mixed results with regard to the importance of green spaces for exercise. Research can be thought of in terms of two approaches, firstly, the research which explores the relationship between access to green and public spaces and the amount of exercise that people achieve. Secondly, research that examines people's usage and the exercise they get in different ways. For both sets of research the findings with regard to the influence of green spaces were mixed. For research which explores access, some research has found that having access to green spaces, or living in a greener area increases likelihood of doing physical activity (Ellaway, 2005, Giles-Corti et al, 2005), whereas other research has found the opposite (Witten et al, 2008).

In terms of research that investigates the usage of green space, Nielsen and Hansen (2007) found that while access to a garden and short distances from green space were associated with less stress and less obesity; the number of visits cannot explain this relationship, and suggest instead that it is related to quality and character of neighbourhood environment. Research results are perhaps more convincing on the benefits of green space once used for physical activity rather than the role of green space in increasing physical activity. For example Krenichyn (2004, 2006) whose research explored women's experiences of using green spaces in qualitative ways found that green spaces can be particularly beneficial for the people that used them for exercise.

As highlighted previously, only a small percentage of questionnaire respondents used green spaces for exercise other than walking. Only a small number of interviewees used parks for exercise other than for walking and those that did exercise, tended to use the larger parks for running. However when they did use them they were found to be particularly suitable places, where people gained benefits beyond just physical exercise, which they considered they would not get in other settings. This included the value of being immersed in a green setting and often feeling away from the city environment. This could possibly be seen in terms of the concept of 'green exercise', a phenomenon which is undergoing increasing research interest (Pretty et al, 2003, 2005). This suggests that the particular benefits of exercising within a green environment are synergistic (i.e. benefit of exercising and being in green work together) and that people experience both physical and psychological benefits from such exercise.

Echoing Krenichyn (2004), people found exercising in park environments to be particularly enjoyable and took pleasure from the different senses, views and experiences of a more 'natural' environment than was the case when, for example, they were running on streets. Thus, while there may not be a significant statistical association between using green spaces and increased physical activity this does not mean that it does not play a valuable role, and in fact could be something encouraged by policy makers. For example, Hansmann et al's research found that over 90% of people believed green spaces had a positive effect on their wellbeing and health and also that positive effects were greater when taking part in active behaviours, for example, sport and in longer visits (Hansmann et al, 2007).

10.4.2 Social benefits of green space

Previous research has focused upon the role of green spaces in promoting social interaction (Kuo & Sullivan, 2001). Within my research, the social side of green space could be categorised on two levels, firstly in terms of places for interaction with friends and family (Macnaghten & Urry, 2000). As was highlighted previously, many people visited spaces with friends/children/spouses. Many people also mentioned in the interviews that green spaces were places to go with work colleagues in lunch breaks etc. Green spaces were also places where they would meet up with people, for example before going on to other places. Spaces outside the city centre which were more likely to be destinations were often used in the company of others such as friends or partner/ spouse. This applied to people who did not like the busyness of city centre spaces, suggesting that it is possible for some to get the desired isolation away from people in general but also to share that experience with people that they had existing relationships with. People often valued simply the general sociability of a space where they could visit space and it had a friendly and welcoming atmosphere where they could even enjoy conversations with people they did not really know.

On the second level, spaces could be places that encouraged the development of community cohesion and social interaction on a broader scale (Flap and Volker (2005). This was a typical way in which interviewees saw the social value of green space beyond the usage for themselves; they were places that could benefit communities and families in particular. Activities such as fairs or events were welcomed and as was outlined previously using space for activities was related to increased usage amongst questionnaire respondents. Events were particularly cited by interviewees as ways to encourage other people to participate, even if perhaps, they did not see it as something they would do themselves. Thus, for some people who did not like the social side of green space for themselves, as perhaps they found city spaces too busy; they still appreciated it for other people. Reflecting the interconnectedness of aspects of wellbeing and experience of space this side of social experience of space will be discussed below in terms of its impact upon the mental benefits desired.

10.4.3 Mental benefits

As mentioned in Chapter 8, green spaces were thought to have benefits for mental wellbeing, people felt that spaces made you feel better and happier (Burgess et al, 1988). Many people ticked the questionnaire options related to passive usages of space, and also to getting some variety of relaxation and escapism from usual routine. Within the interviews, people stressed highly the possibilities for relaxation from green spaces and the way in which this could (or not) be achieved in different spaces.

This echoed the findings of previous research which has reported that people believed green spaces to have restorative and stress relieving qualities. Woodlands, parks and other green spaces within cities or urban environments were perceived as providing places for escape from the city and as having a considerable role in relaxation and stress relief (Chiesura, 2004, Coles & Bussey, 2001, Bell et al, 2003).

It also possibly accords with previous research that has suggested access to green space has a measurable restorative affect on peoples' mental health. This included research which explored the effects of views of green space or nature on various outcomes associated with restoration, including better attention scores (Tennessen and Cimprich (1995) faster recovery from stress (Ulrich,1984, 1991) and reduced tension, anger and depression (Karmanov & Hamel, 2008). Being in green spaces has also been reported to have an association with reduced stress and increased attention in survey studies (Grahn & Stigsdotter, 2003, Faber-Taylor et al, 2001). Access to green spaces has been reported to influence stress (Gidolf-Gunnarsson & Ohrstrom (2007) although some research has suggested that access to green spaces represents quality of area, which is what positive outcomes are related to rather than actually using spaces (Nielsen & Hansen,2007).

10.4.4 Attention Restoration Theory

In fact, it is significant that many of the discussions and arguments put forward by the interviewees had considerable overlap with the central tenets of Restoration Theory. As we saw in Chapter 8, people felt strongly that green space could be sites of relaxation; although they differed in which sites could provide this and under what circumstances. Whether people were experiencing attention fatigue as described in Restoration Theory is debateable, however many respondents certainly felt that green space could offer an antidote to whatever stresses and strains they were feeling.

Restoration Theory argues that people experience attention fatigue as a result of constant bombardment with information. In response to this people seek out restorative environments. These are said to be characterised by four factors: Being away (from the environment in which stressors are located), Fascination (effortless attention –being fascinated by something that does not involve concentration), Extent or coherence (size or complexity of space in order to enable

complete immersion in the environment), Compatibility (between a persons interests and preferences and the environment) (Kaplan, 1995).

Kaplan (1995) suggests that people do not need to be in a rural environment to experience restoration and that natural environments within urban settings can provide the opportunity for escapism. For example, in terms of fascination, much of the fascination offered by natural settings are 'soft fascination' that is, they do not require concentration, and include features such as clouds and sunsets which can be experienced in urban space. Extent/coherence is easily achieved in the countryside although in the city centre it requires more effort and planning, for example, designing trails and paths and miniaturization. Compatibility refers to whether people's interests and wants or needs are met by the spaces (and may relate to perception of what 'being away' means). For some the busyness of city green space automatically mitigates against the possibility of being away. Evidence for restoration theory usually involves measuring physiological signifiers of relaxation, however it can be a useful framework with which to compare and contrast how people conceptualise the benefits of green space.

In highlighting how people saw green spaces as a site for relaxation and restoration it is apparent that much of people's discussion of green space concerned the importance of getting away from either a work environment or home environment, or a stressful state generally, to a place where they could relax. Being in green spaces was often seen as preferable and more relaxing to being on the streets and the reason why people made short cuts and detours through green areas. There was a multitude of ways that green space might be seen to help one to get away, from the city, from work or from home and people differed in the extent to which they believed particular spaces offered the ability to create this feeling.

The idea of *extent* was particularly important for some people; specifically those who wanted to feel that were away from the city. Thus, they needed a degree of separation from the city (be it physical or ideological). Thus, for some people for example, Crookes Valley Park was seen as more relaxing than Devonshire Green due to it being set back from the road and not being surrounded by shops and bars which could otherwise have imposed on their experience of the space. The size of the space could also have a bearing on this and the ability to feel they were within a more rural environment than they were, as could the cover of trees and vegetation. Thus, comparisons were made between Devonshire Green and parks further out such as Endcliffe and even the Peak District, where the size of space made possibilities of separation from urban life greater. A large part of this conceptualisation was also the desire to be away from other people in less busy and populated space.

In contrast, we saw that for people who used the city centre spaces as a 'break in the day' the priority was not immersion in the space but rather being in a leisure focused rather than work oriented space. This did not necessitate being away from people or being separate to the life of the city to the same extent. Indeed, for some, part of the enjoyable element of relaxation was also seeing other people relaxing. So the extent to which coherence is important to the

individual's feeling of escape may depend on whether they wanted a nature focused escape rather than a leisure focused escape and what they were escaping from.

Interest in natural features (akin to Fascination) was generally important. As was described previously, people talked about the enjoyment they attained from looking at greenery, plants and flowers within spaces, as well as views and watching other people in space. It was highlighted previously how people enjoyed multi-sensory experiences in green space and these related to the concept of fascination. However, fascination, while integral to the theory of restoration may not be necessary for all people to achieve relaxation. For people wanting a short break or travelling through the green space, it was not necessarily fascination that they would experience, interest is perhaps a more appropriate term, and often this interest was expressed in terms of people watching rather than fascination with natural features.

Also crucial and perhaps obviously so, was the importance of feeling that green space was valuable and something that could be enjoyed. There was certainly no element of people using green areas because they thought they should, or for any other reason, other than it was something they wanted to do.

A small amount of previous research has explored the role of social interaction in restoration, and has suggested that in urban (not green) environments, social interaction could increase perceptions of restorativeness (Scopelliti & Giuliani, 2004). However, in natural environments people believed that being alone was more restorative as long as the area was safe. If not, then social interaction would increase restoration because of increased perceptions of safety (Stats & Hartig, 2004, Scopelliti & Giuliani, 2004). As was explained previously, people differed in the extent to which they found social interaction in green spaces to be restorative and also the extent of the possibility for green spaces in urban environments to be restorative. For some residents the busyness of city centre spaces meant that relaxation was generally not possible and they went further afield, perhaps to the Peak District. However, for a minority social spaces that were busy with other people enjoying similar experiences could be relaxing within the city environment and generally.

10.4.5 Being away from the city: the social construction of 'nature'

Rather than understand this desire to be away from the city to be reflective of natural human needs; writers working from a social constructionist position suggest this is part of the development of western society away from a predominantly rural life into an urban dwelling one and our reaction against this (Edensor, 2000). This is significant although to my knowledge there has been no explicit dialogue between researchers of either position, although Bunce (1994) puts forward a position which draws upon both approaches. Evidence for this stems from the assertion that the idea of contrast between the countryside and the city, developed principally in the 19th century during the industrial revolution where cities were seen as smoky, smelly and dangerous places (although there is a long history within antiquity of differentiation between city and rural life (Bunce, 1994)). During this time the countryside came to be viewed

differently, idealised in the public mind, and there emerged a different way of looking at the countryside, moving from the idea of *land*, conceptualised as a physical surface to be worked on, to *landscape*, with associated projections of beauty, of leisure and relaxation, as something to be looked at and admired (Edensor, 2000, Macnaghten & Urry, 2000).

Indeed, part of restoration theory is the feeling of being away from urban stressors, and that people found this to be particularly important within the interview research. It has also been found previously in both quantitative and qualitative research, where green spaces and woodlands are seen as places to get away from the urban environment (Ward Thompson et al, 2005, Coles & Bussey, 2001) as well as the countryside (Edensor, 2000).

Thus while this philosophical argument is generally based on actual as well as an imagined distinction between nature in countryside and city life, these distinctions can arguably be transposed into other situations, for example onto parks. Within this research the potential places where escape could be found were diverse and varied according to individual people and even to context. Interviewees' ways of speaking about their feelings of getting away were also remarkably similar to this social constructionist understanding of the distinction between urban and rural. Thus while for some it was only the countryside that could provide the visual and physical feelings of separation, however for many spaces within the city could provide that as long as felt they were away. In fact even within city centre spaces, for people looking to escape from the stresses of work, being in such a space among other people could provide the necessary feeling of being away.

For example in people's discussion of 'fresh air', while researchers looking from an objective approach would examine whether air quality was improved or not, from a social constructionist perspective the aim would be to seek out why people understood green space in that way. For Macnaghten & Urry the idea of 'fresh air' is central to the rejuvenating benefits of being in the countryside.

'natural practices 'happen in the fresh air, where there is something about hot or cold or wet or dry air that is thought particularly braving or refreshing or rejuvenating. Such fresh air drives the body to do things or go to extremes that singularly contrast with some aspects of everyday life'

(Macnaghten & Urry, 2000, p2)

For the people in my study the notion of 'fresh air' was inextricably tied up with ideas of being away from the city, whether for that individual it meant being in the countryside, walking in the middle of nowhere; or alternatively simply being outside away from their work environment which was enough to provide them with the necessary fresh air to feel refreshed and restored.

Furthermore the idea of the importance of beauty and of admiring the landscape was particularly apparent, as was the engagement of other senses that people could see provided in green spaces. Many people highlighted what they felt were heightened senses in contact with nature; even the smallest amount of 'nature', such as the smell and vivid colours of flowers in the centres of roundabouts, or trees in blossom. These encounters were often contrasted by people in their discussions with the greyness or blandness of the city.

The ideas of opposition between nature and urbanity stems down to the most minute level of individual trees, plants and flowers, which were often given more complex and symbolic meanings than perhaps envisaged by people who manage them (O'Brien, 2004). Trees have been argued to have symbolic meanings for people such as representing life, the natural world and a healthy environment. The longevity of trees provides continuity between past, present and future (Macnaghten & Urry, 2000). For some interviewees trees and plants perhaps acted as a symbol, of permanence and peacefulness standing against the busyness of the city and the advancement of development.

'trees separate space and soften the concrete jungle; they add a living dimension. Through their response to the seasons, trees give city dwellers a sense of natural time and rhythmic change which is not artificial or imposed'

(Nadel et al, 1977, p30)

This is arguably why people could have so much attachment to particular areas or even individual trees. There were examples within the interviews of people imagining that they were in wider green space by looking out at surroundings trees, and of upset at the destruction of even individual trees. For one interviewee her disappointment and sadness about the 'tearing down' of trees she felt was indicative of the council's disregard for the people of the city, particularly for the permanent residents who were most affected by any decision made in this regard. In this sense the trees come to symbolise the area, and the care given to it (Jorgensen et al, 2007).

10.5 The importance of green spaces in the city

The questionnaire results suggested that people had moderately positive views generally about the importance of green spaces for the local area for different aspects of wellbeing. The interviews revealed a more complex and varied story. There were two different, but related elements to this: Firstly, the expectations of green space in a city centre. People generally did not expect there to be much green space in the city centre. They did not move to the city centre for green space, and there was a general view that if they had wanted green space then why would they choose to live in a city. There were many expressions of surprise at the green spaces that had been established in the city and also assertions that cities were not meant to be green or for the flourishing of 'nature' but mainly for buildings and hard concrete.

On the other hand being in a city environment where there is not green in abundance means that smaller amounts begin to take on greater significance. The importance given to greenery on streets and in the general environment was particularly valued and was not something that was considered in the questionnaire. In fact it arose as a concern from the pilot interviews when people mentioned greenery, and then subsequently within the interviews respondents were asked for their comments. The interviews allowed for exploration of what it is about green space that is important and the ability of even a small area or even individual patches of greenery to soften the city to provide a more relaxing and pleasurable general environment. Indeed previous

research has indicated that trees on streets positively influenced residential satisfaction (Ellis et al, 2006) and this is supported by the positive attitude toward such greenery from the interviewees, with regard to the appearance and feel of the area.

A particularly salient example of how people attributed greater importance to green space in areas where it is in short supply was the reaction to the redevelopment of Devonshire Green. There was a reduction in the amount of greenery due to this redesign which was highly significant to a number of interviewees. This is arguably related to the fact that Devonshire Green is the only green space of a considerable size in the city centre and removing even a small amount of grass was taking away significant greenery. The issue of the development of spaces also raises the issue of the publicness of green spaces. People felt strongly that spaces were for public usage and should be free of charge. Thus, the co-opting of some of the green space by the nearby café/ bar, while seemingly acquiring only a small area, went against the public nature of space because people cannot now freely use this area.

Amongst interviewees the value of city centre green space was often more highly emphasised by people who did not have the opportunity to use spaces outside the city centre. Related to this, access to a car was associated amongst the questionnaire respondents with greater usage of non-local spaces. For some residents who had moved from suburban to city centre environments it was clear that city parks could compensate for not being able to access countryside and/or large suburban parks. Furthermore, for many people who had busy lives and were not able to get out of the city centre to the Peak District or to parks on a regular basis the city green spaces generally proved to be adequate.

10.5.1 Importance of green space without usage

A further significant theme with respect to the benefits of spaces and their importance is their value to the city in general and for other people. This links us back to the idea that people do not have to use spaces to value them and also the research that has been highlighted, where people do not necessarily value most the green space frequented most (Tyrvaainen et al, 2007). Thus at the most basic level for people who did not really use green spaces they were welcomed as they contributed to the atmosphere of the city and provided green space for others to enjoy; so called 'amenity value' (Dunnett et al, 2002). Green spaces were also part of the identity of Sheffield; the city council appear to have done an effective job in promoting Sheffield as the greenest city in England, certainly amongst Sheffield city residents.

Green spaces were often cited, along with general public space development as playing a significant part in helping to improve Sheffield, to rebrand it, from its industrial past. It was observed in the literature review that Jorgensen et al (2007) and Kuo et al(1998) found that green space could indicate the quality of an area, be it poor or good quality, and the redevelopment of spaces within Sheffield appears to indicate that the city is cared for, or at least

a place worth living in or visiting. This finding echoes Makinen & Tyrvaïnen (2009) who found green spaces contributed to the image of the city and overall pleasantness of the area.

Previous research has found that people value wildernesses (Sayer, cited in Shoard, 1982), knowing they are there, even if they do not visit them, and that people value spaces in urban environment even if they do not use them (Urban Green Spaces Taskforce, 2002). However, it is a significant finding from this research that people go out of their way to suggest spaces are important for people other than themselves and should be valued, developed and maintained for that reason. Groups singled out specifically, were families and children who were seen as particularly deserving of and in need of space (Greenhalgh & Wolpole, 1996). This is arguably particularly important as it is not simply people with children with this viewpoint; but represents the fact that residents perceive spaces to be important community resources.

In the research the need for open space for children was exemplified in the views of some of the youngest childless residents when they stated they would move out of the city centre to a greener area when or if they had children of their own. While open space was not the sole reason for this it did play a significant part in some people's assertions of the value of suburban environments. While for the respondents who had children living with them the spaces in city centre were particularly valued and seen to offer important play and educational spaces for their children.

10.6 Perceptions of green space

This section will highlight the important findings with regard to how people perceived spaces. Generally people were reasonably positive about the quality of spaces within and around the city centre, this perhaps partly reflected the increasing investment into the redevelopment of spaces that had been undertaken recently. Redevelopment was generally welcomed, as constituting improvement in the appearance and feel of space, although people had reservations over some designs.

10.6.1 Safety concerns

Safety concerns were addressed by both methods due to previous research indicating it as a significant factor in people's perceptions of spaces. The questionnaire suggested that over 50% of people thought that green spaces were safe, while less than 15% disagreed, while a third of people were neutral. This suggests that generally people perceived the green space reasonably positively in terms of their safety. The interviews revealed differences between spaces – certain spaces were singled out as places where one was more likely to feel unsafe, and the potential to feel unsafe was also subject to change. There was also only a very small correlation between usage of green space and feelings about this safety which suggested that safety concerns do not play a major role in frequency of usage

While much research (e.g. Burgess, 1995) and even much media coverage highlights the fear that people feel in green spaces, this research echoed the findings of Ward Thompson et al

(2005), and found less fear expressed than has been found previously (especially by women). However, while Ward Thompson et al (2005) found women were still less likely to visit woodlands alone, this was not something found in my research which showed no real gender differences in any aspects of usage.

Within the interviews, it was apparent that many people wanted to engender an impression of being unconcerned about safety within green spaces, there was a sense that people were aware of media discourses, which painted city centres as unsafe generally and parks as unsafe in particular. This echoed Ward Thompson et al (2005) who also found a similar awareness.

There was a limiting of behaviour by some people; for example, some said they would not walk in green spaces at night, or would generally change routes in the city centre. However, there were other people who argued strongly that the only reason they did not go to green spaces at night was because they did not have any reason to be there, rather than for any concern over possible danger. In addition, a couple of people said that they had increased their usage of city centre spaces since their redevelopment as the green spaces were now being monitored and Devonshire Green in particular, was mentioned as having improved lighting which created feelings of safety.

Much previous research has highlighted concerns for children's safety. O'Brien (2006) found in her qualitative research that children have less contact than their parents with green spaces and forests which was partly associated with safety concerns and also time constraints in people's lives. Valentine & McKendrick's (1997) research comparing parent play with that of their children found that play in public spaces had reduced, due to parental concerns about safety. Many adults had a rose-tinted view of their own childhoods which was contrasted with those of their children:

'many of the parents interviewed represented their own childhood as nostalgic on terms as a time of innocence, where they were able to explore nature (countryside or woods) without fear of accident or crime'

(Bell et al, 2003, p96)

Within my study, green spaces were generally seen by parents and non-parents alike as safe places, however there was a difference in the extent to which children would be able to use them alone or without supervision. Furthermore, there was a small element of the 'rose tinted view' described above for some respondents in the study who asserted that green spaces were not safe in the way that they had been and that the 'world was a different place' and therefore it would not be possible to let children out on their own.

Jorgensen et al (2007) suggested that greenery played a role in indicating the quality of the area; a place that was well cared for indicated pride in the community, a wild space indicated the lack of such concern. The intrinsic association of wilder spaces with lack of safety and perhaps criminality was highlighted by the interviewees. Urban spaces were seen to be dependent upon high profile management in order to ensure that they did not become places that people would misuse. The language employed by some of the interviewees suggested an

inevitability to this that space without management would automatically attract bad and even criminal behaviour, even though they said they were not scared themselves of going into green spaces. This according to Rohde and Kendle (1997) reflects a powerful dual understanding of nature:

'Inevitably we probably all have complex attitudes towards different components of the natural world. Even so there may be evidence for a fundamental and basic dichotomy of reaction in that some people see nature ultimately as spiritually good, a thing to be cherished, others as symbolic of 'anti-civilization' and a thing to be feared'

(Rohde & Kendle, 1997, p37)

This understanding which values the isolation of green space on the one hand, but also fears the potential dangers is a widely reported phenomenon. As Ozguner & Kendle suggest

'while some studies of landscape preference demonstrate that natural areas are highly valued and preferred there is also evidence that natural areas are scary, disgusting and uncomfortable'

(Ozguner & Kendle, 2006, p143)

It is significant that this was generally only within urban environments that spaces were deemed to need human intervention and monitoring (although of course rural environments are managed, even if this is not so apparent); to ensure the correct usage and safety of users. People did not suggest that the countryside needed monitoring in the same way. Such management was generally welcomed in urban areas by people as making spaces feel more secure and also as a way of keeping the spaces looking pleasant and attractive.

Beyond the intrinsic meaning attributed to woodland there is the issue of other users in space, which is a concern that includes, but goes beyond safety. Incivilities such as litter, vandalism and graffiti can also cause people to be fearful and also simply put them off using spaces (Pain & Coleman, 2001). Within my research there were occasions mentioned when people said they had avoided areas because of people frequenting them and because of certain incivilities for example, litter and drug paraphernalia.

10.6.2 Appropriate usage of space

Much of people's less than positive views of spaces and their preoccupations within the interviews, were related to notions of appropriate and inappropriate usage of spaces. This recognised that there are ideas about how people should behave in spaces, and also reflected the fact that many groups solely by being present in the green space were often seen to be 'out of place' even if they are not engaged in anything inappropriate. There has been a small amount of work which has highlighted concerns about appropriateness of behaviour in green spaces. For example Edensor (2000) in the countryside and Rishbeth and Finney's (2006) work with asylum seekers in city spaces; however much of the theoretical understanding for this was ascertained from criminological research or social theory which generally takes as its focus the main spaces of the city including streets and spaces of consumption for example, shopping malls.

For many researchers public spaces have become subject to increasing controls; for example

features such as surveillance, security guards, and in the case of Sheffield, Community Police Support Officers and City Centre Ambassadors. These are tasked not with policing criminality, but with incivilities and more often than not the exclusion of certain groups who may be seen as potential troublemakers (Tiesdell & Oc, 1998, Young, 1998). Walzer (1986) argues that we have seen the development of 'close minded spaces' which only allow a narrow range of people to occupy spaces which are governed with norms of consumption. While green spaces are evidently not governed by norms of consumption, in the research findings there was an underlying feeling from some interviewees who highlighted groups of people who they felt were inappropriate within the green space, and potential trouble makers; making the atmosphere feel uneasy, even if they had not undertaken any specific either illegal or incivil behaviour. Thus as Dixon et al highlight:

'it was frequently the 'look of particular groups of users within public space that is deemed problematic by other users'

(Dixon et al, 2001, p188)

Certain groups received particular attention from other users, including drug takers, streets drinkers and young people, which are groups that have been found in previous research to be subject to control within public spaces (Dixon et al, 2001, Valentine, 2000) and to potentially deter people from using spaces (Dunnett et al, 2002). Ideas of appropriate behaviour were not necessarily subject to official control (although there were alcohol exclusion zones in the city centre), however they were subject to un-stated assumptions about who the spaces were for and what ways they should be used (Nolan, 2006).

Both drinkers using green space and young people highlight interesting issues with regard to how people are construed to be 'out of place'. For example, with regards to alcohol, Dixon et al (2001) suggest that public drinking blurs the boundary between public and private behaviours and it is such private behaviour in a public space that is problematic. However, as they point out it is not that straightforward: people within their study pointed out that they would occasionally walk around with a can of beer, while in my research some interviewees highlighted that they liked to have a drink in bars and pubs that were nearby or in green space.

With regard to young people there was definite dichotomous construction of young people within people's narratives (Valentine, 2004). This involves the understanding of young children as innocent potential victims and older children and teenagers as potential troublemakers. Within the context of my research, older teenagers were often constructed as 'hanging around' in spaces and creating an unpleasant or rowdy atmosphere (Pain, 2001). Young children, in contrast, were generally seen as the rightful users of space. As stated previously many people in my research highlighted the importance of green spaces for young children to play.

While there was often a highlighting of these groups in the research, it would be misleading to suggest there was always outright condemnation and spaces were generally *'full of contradictions and ambivalences rather than being straightforwardly exclusionary'* (Jackson, 1998, p12). Researchers also disagree in that spaces were ever

uncontrolled (see Jackson, 1998, Merrifield, 1996, Lees, 1998 for comprehensive discussion)). For example, within the interviews people differed in how concerned they were about certain behaviours such as drinking in public spaces. Some people were concerned to construct, as with safety concerns in general; it as a preoccupation of other people, and that generally as long as people followed the (un) written rules of spaces and for example cleaned up after themselves and did not leave broken bottles it was not particularly problematic. In addition, not everyone was positive about young children using green space, for example, if one wanted peace and quiet then young children running around was not seen to be conducive to this.

Much of the concern reflected peoples' worry about certain green spaces being monopolised by one particular group, to the exclusion of others, and should not therefore necessarily be conceived as narrow minded (even if arguably as members of non-marginalized groups the interviewees rights to public spaces are more assured). It was apparent that the behaviour of some groups *could* have a detrimental effect on the rest of users for example, if they are leaving broken glass. To suggest all concerns over other users reflect the intolerance of difference is simplistic. Previous research has expressed and reflected this research in arguing for the importance of space which allow for a variety of users to coexist and engage in a multitude of usages (Mean & Tims, 2005).

The green spaces themselves are not homogenous and neither was the behaviour that was felt appropriate within them (Nolan, 2003). Some of the interviewees themselves highlighted that they felt they could not partake in particular behaviours in certain spaces, for example, playing football in Botanical Gardens or running about in the Winter Garden, as they perceived these spaces to be too formal. People thereby put controls on their own behaviour as well as thinking about others' behaviour in green spaces. This has echoes in the findings of Rishbeth and Finney (2006) in their work with refugees, where people felt more comfortable in the city centre space of the Peace Gardens with its strongly demarcated features such as pathways and seating areas which left no opportunities to fall foul of ideas of appropriate usage.

Perceptions of appropriate behaviour and feeling out of place change over time and are created through continuous usage. As Nolan suggests

'certain behaviours become normalised through repetition and then that becomes common sense which reproduces the status quo'

(Nolan, 2003, p323)

An example of this was children running in and out of the fountains of the Peace Gardens. A number of interviewees expressed surprise at this being allowed to happen, but then articulated acceptance, as something that they had got used to. It could then be conceived as a normal usage of the space and something that can be enjoyable to watch, although the extent of acceptance varied. This is an example of continual contestation and the lack of universal agreement over appropriate behaviour.

10.7 Methodological issues

10.7.1 Mixed method issues

As with all exploratory research the aim of this study was not to test explicit hypotheses, but to provide insights and suggest possible relationships and to also develop the use of mixed methodology. The complementary approach which was employed, while exploring the same general subject of perceptions and usages of green spaces in the interviews and questionnaires, also allowed for the exploration of different aspects. Thus not all the topics explored in this study had the same degree of contribution from both methods. For example, during the conduct of the research it became apparent that the qualitative method had more relevance to benefits of space where people can discuss their experiences and what is perceived to be beneficial. In comparison the questionnaire was more useful in building up a picture of how people generally used spaces, while qualitative information helped to provide an in-depth understanding of the different way that people used space and why.

As highlighted in Chapter 3, the sequential approach to the mixed method data collection was partially chosen as concurrent research would have been practically difficult due to being the only researcher involved in the study. However there were other methodological advantages. Thus, the questionnaire provided a sampling frame for the interviews and also awareness of people's answers and broad patterns of usage of green spaces, in preparation for the interviews. It also provided the opportunity to explore certain issues that had been raised in the questionnaire, for example, the questionnaire analysis suggested that people felt that green spaces were important even if they did not use them, which was something that may not have arisen in the interview questioning if people had not been asked how important green spaces were to them and to the city. This finding has been briefly highlighted by researchers of large scale research into patterns of usage of spaces, but not to my knowledge within qualitative research. The interviews enabled a more in depth and contextual understanding of the possible ways in which this paradox may operate in the real world.

In addition, while there was a sequential approach to methodology, this did not necessitate that all stages of the research were linear. As was pointed out in Chapter 7 there were examples where the interview data had prompted me to undertake further analysis of the questionnaire. Thus while the initial questionnaire analysis had looked at how people used spaces generally, it became apparent in the interviews that people saw spaces individually and not as a homogenous group and used particular spaces in individual ways. As a result of this questionnaires were revisited and usage analyses undertaken for the individual spaces which had the most users, in order to see differences in the patterns of usage between them. Without the interviews it probably would have remained a more general analysis. In addition, during the interviews many respondents suggested that they wished to use the Peak District more often, and felt they could not. This prompted a return to the questionnaires to examine the association between using green spaces and access to a car/vehicle. This was therefore important, as it demonstrated the

value of mixed methods beyond their immediate value of the two methods building up a broader and more varied picture; but also allowed for additional insights that could be gained through their interaction.

10.7.2 Presentation of results

The decision was made to combine the results from both methods in the Results chapters and also within this Discussion chapter when relating to wider literature. This was something that is done relatively infrequently within mixed methods research which tends to report the findings from the individual methods separately (O’Cathain, 2009). This was a complex element in the writing of the thesis, because of the differences as well as possible contradictions between the two data sets. In addition, due to the fact that the methods explored different factors and there were differing combinations of methods, so for example, some areas of analyses had more qualitative information while others had more quantitative. Some subjects also warranted greater separation in the presentation of results between the two methods due to the differences in what the two methods examined.

As an example of this complexity, perceptions of green space assessed in the questionnaire was relatively straightforward, but while the interview may be about a similar subject there was a concern not to categorise people’s interview responses as about the same issue in order to prove the value of combining the methods. Thus there was a fine line between seeking to integrate and not wanting to eliminate or distort the differences between quantitative and qualitative. For example by making sure I did not ignore where there were contradictions, or areas in the interviews that did not relate to the questionnaire and vice versa.

10.7.3 Limitations of the study

The principal limitation was the lack of generalisability possible from the questionnaire due to the low response rate. If the study was replicated I feel it would be advantageous to purchase a complete address database, rather than using the electoral register or alternatively to not personally address the letters. The electoral register is updated once a year and it seemed too long to wait for the next one to be published. The fact that it was not completely up to date may partly explain the low response rate; as many were ‘returned to sender’ this may indicate a widespread problem with a high turnover of population. This was an issue that was perhaps not adequately addressed at the time of sending the questionnaires.

In future research I would also send reminders, which were not sent in this study because of time and cost limitations. Unforeseen circumstances had delayed the initial sending of the questionnaires and I therefore felt it important not to delay analysis any longer. This underlines an advantage of having mixed methods, because when there is not a high response rate, the interviews can take greater priority. Furthermore, the interviews were flexible in terms of when to conduct them and how many. Having a low response rate, therefore, was not such a serious issue as it perhaps would have been, had the research been based solely on the questionnaire.

Despite this, with regard to the interview sample, without time constraints it would be preferable to get a more diverse sample, in terms of age for example.

Mixed method research inevitably involves a shorter amount of time allocated to the individual methods than would be the case in a single method study. In hindsight it would perhaps have been desirable to reduce the time spent on developing the questionnaire at the preliminary stages of this project. This was because a great deal of time was spent in the early stages of research and in considering the intricacies of the questionnaire; leaving less than six months for the interviews (planning, sampling, conducting, transcribing and analysing).

It is my belief that the research would also have been enhanced by detailed observations of different spaces to record their usage. While I did undertake informal observations these were not systematic enough in order to draw significant conclusions.

A specific issue in relation to the questions asked in the questionnaire could realistically be conceived as a limitation. The decision to ask people to answer questions relating to usage of most frequently used spaces, limits understanding to this specific usage. This means a picture of the usage of spaces that people use less frequently, cannot be obtained. However, while this is a limitation, it was preferable to be able to understand the usage of particular spaces rather than people answering about green spaces generally which would not have given such useful data. Asking about all the green spaces frequented would also have been impractical, due to the necessity of keeping the questionnaire reasonably concise. In addition, the fact that within the interviews people were questioned about their general and specific usage with no restriction; meant people could talk about the spaces that were of importance to and interested them, which went beyond the most frequently used spaces.

Missing data in the questionnaire was not generally a concern. Most questionnaires were very well completed and only a few had missing answers which generally were demographic questions such as income or religion. These people were easily excluded from analysis of the specific questions, and the missing answers did not affect other analyses.

10.7.4 Relevance and generalisability

Results from the questionnaire do have to be interpreted cautiously; however I was not setting out with hypotheses to test, nor to seek to make assertions about the nature of the city centre population which would be vulnerable to response bias. I would argue however that the research can provide insights into certain patterns and themes, some of which support existing research and others which suggest relationships that have not generally been explored. For example, there is no reason to suppose the findings related to the relationship between perceptions of green spaces and using green space are relevant solely to people in Sheffield city centre.

10.8 Conclusions

10.8.1 What this research adds to current understanding

This research makes a contribution to research on green space, and mixed methods literature in a number of ways. The latter as suggested by an integrative approach to mixed methods, which is infrequently implemented. It is my belief that the mixed methods approach allowed for a more intricate and developed picture to emerge of how people used and how they felt about, as well as spoke about green spaces in the city centre.

This study has highlighted the important ways in which people used green space and their feelings in relation to the green space. By emphasising where it is related to relevant literature, this chapter offered links and emerging areas of theoretical understanding for future consideration. There are three specific ways in which this research enhances existing knowledge and may have implications for policy.

1) The importance of the incidental use of green space, for example, people using it on the way to somewhere else and in the course of everyday activities. The interviews showed that people regularly employ an incidental way of using green space; that is green spaces are often not destinations in themselves, but regularly are used on the way to somewhere else. Indeed, people often created 'green routes' to incorporate green space usage into their lives. This is not something that has been considered within research on usage and perceptions, which tends to focus solely on green space. This therefore, recognises the integration of green and open spaces within urban environments and identifies that they are not necessarily viewed as discrete places separate from the rest of the city.

This is starting to be acknowledged within policy. Indeed the report of the Urban Green Spaces Taskforce (2002) argued that while urban design is concerned with the linkages between spaces as well as the design of individual spaces, 'at present green space design tends to be focused on individual sites, often in isolation rather than networks' (Urban Green Spaces Taskforce, 2002b, p34) This research emphasises the need to consider such linkages. Furthermore, the East Sheffield Green and Open Space Strategy suggests that connection between spaces was also seen as important in addition to improving connectivity between green spaces and other spaces such as residential environments, community centres and schools to encourage the usage of space (East Sheffield Green and Open Space Strategy, 2008). Thus by having greater connection between green spaces and other places of regular use you would hope to encourage use of spaces; although my research suggests that people often make their own 'green routes', linking green and other spaces through their own initiative.

2) Social consciousness about the value of green space. This is the idea possessed by some people that green space is good for others and the community generally even if people do not use it themselves. Much policy discussion considers the importance of green spaces as places available for use and that it is problematic if people do not use them (East Sheffield Green and

Open Space Strategy, 2008). Having green space available to use is of course vital, however this finding recognises that green space should not simply be evaluated on the basis of frequency of usage, that people consider green space important both for the quality of the local environment and for the usage of others. However there is some recognition within current policy that green spaces have a role beyond strict usage. The East Sheffield Green and Open Space Strategy, for example, while stressing the importance of usage of space does assert the value of having visual access to space, which does not necessitate actual visitation. Green space has also been asserted to influence the quality of the area which has considerable salience with the idea of liveability of neighbourhoods. As CABI Space argues *'Successful places, where people are attracted to live, work, visit and invest have successful green spaces'* (CABI Space, 2005). This is seen to be in terms of creating attractive and safe neighbourhoods, but also through the role of attracting investment to the local area.

As CABI Space suggests

'As towns increasingly compete with one another to attract investment, the presence of parks, squares, gardens and other public spaces becomes a vital business and marketing tool: companies are attracted to locations that offer well-designed, well managed public spaces and these in turn attract customers, employees and services. In town centres, a pleasant and well maintained environment increase the number of people visiting retail areas'

(CABI Space, 2004, p4)

While this stresses the value of green space for the area, it is focused primarily upon attracting people and economic value rather than serving existing residents. This perspective elucidated by residents that green space should provide spaces of refuge and relaxation, for people in the community is particularly important and emphasises the importance of green space even in areas where one would not expect to attract outside visitors or workers.

3) The importance of proximity. People generally used the nearest spaces most often even if they were not their preferred spaces and thus local spaces play an important role in regular use. The importance of proximity emphasises the importance of having green spaces of quality within the local area that are easily accessible, as well as larger parks that people may make more effort to reach. The East Sheffield Green and Open Space strategy has recently highlighted that the priority with regard to local provision are the more intimate, smaller and local based spaces, which were generally of poorer quality currently than the larger spaces. PPG 17 highlights the importance of having quality green spaces and suggests that protection should be given to those spaces that may traditionally have been overlooked, such as 'small areas of open space in urban areas that provide an important local amenity and offer recreational and play opportunities' (ODPM, 2002b, p7) This is particularly important when one considers the development pressure upon small areas of space in and around urban environments.

10.8.3 Future research

As this research was exploratory as well as producing interesting findings it also highlighted many areas that would warrant further investigation as individual studies that could go into greater depth and detail. It would perhaps be desirable to build up a picture of more specific usage of space per group, for example, for parents and children, to see how they understand the risks of using spaces and how they perceive the possible benefits, and whether such views manifest themselves in behaviour.

Furthermore, groups such as homeless people and street drinkers, who were often mentioned as problematic in green spaces could be potential interviewees in future research. Interviews could investigate from their perspectives how they perceived public and green spaces, and whether they felt excluded and their ability to access green spaces and to move freely about the city.

City centre living is an area that has not really received much attention outside of gentrification, so research could focus more upon city centre living and how new dwellers to the city centre, such as young professionals and students relate to original residents and what tensions exist there. Consideration could also be given to the exploration of possible conflicts that exist between residents and people who come into the city for work or for leisure.



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Questionnaire

Please answer the following questions as accurately as possible by ticking the appropriate boxes (one per question unless otherwise stated). Please answer all questions unless you are directed to do otherwise. The information you give us will be treated with the strictest confidence.

Section A: Where You Live

This section asks factual questions about different aspects of your accommodation

A1) What type of accommodation do you live in?

- Detached house or detached bungalow
- Semi-detached house or semi-detached bungalow
- Terraced house or terraced bungalow
- Flat or maisonette
- Room/bed-sit (within any building type)
- Other (*please specify*).....

A2) Which of the following is your accommodation?

- Owner –Occupied (including buying with mortgage etc)
- Council/ Local Authority /Housing Association rental
- Private landlord rental
- Other (*please specify*).....

A3) Approximately how long have you lived in your present accommodation?

(Please estimate if you are not sure)

- Less than a year
- 1-5 years
- 6-10 years
- 11-15 years
- 16 + years

A4) Apart from yourself, how many other people live in your household?

- None (*if none, please go to question A7*)
- 1
- 2
- 3
- 4
- 5 or more

A5) How many children under 18 are there living in the household?

- None (*if none, please go to question A7*)
- 1
- 2
- 3
- 4
- 5 or more

A6) How old are they? *(please tick all that apply)*

- 0-4
- 5-9
- 10-15
- 16-18

A7) Do you have access to any of the following at your home? *(please tick all that apply)*

- Private Garden *(for the use of your household only)*
- Shared Garden *(for the use of more than one household)*
- Patio or yard
- Roof terrace or balcony
- None of the above

Section B: Feelings about your area

The next section asks for your opinions on certain aspects of the area in which you live. For your area we mean roughly the area within 15 minutes walking distance of your home. (If you use a wheelchair or mobility scooter then 15 minutes using that). Please think carefully, but remember there are no right or wrong answers for this section; we just want to know your thoughts and feelings.

B1) How safe do you feel in the area where you live?

- Very safe
- Quite safe
- Neither safe nor unsafe
- Quite unsafe
- Very unsafe

B2) How would you rate the general appearance of the area?

- Very good
- Quite good
- Neither bad nor good
- Quite bad
- Very bad

B3) How friendly do you think people are in your area?

- Very friendly
- Quite friendly
- Neither friendly nor unfriendly
- Quite unfriendly
- Very unfriendly

B4) Do you think crime is a problem in your area?

- Large problem
- Slight problem
- Not a problem
- Don't know

C2) Which green spaces do you visit or walk through in your local area?*(please tick all that apply).*

- Devonshire Green
- Peace Gardens
- Weston Park
- Crookes Valley Park
- Botanical Gardens
- Norfolk Heritage Park
- Cholera Monument Grounds/Clay wood
- Others *(if you visit or walk through other green spaces in your local area, please fill in the grid below, by naming these spaces if possible and describing their location and attributes, eg wooded area, grass, playground etc)*

Name (if known)**Description and approximate location**

- 1).....
- 2).....
- 3).....

*(Please continue on an additional sheet if necessary)***C3) On a typical visit what activities are you likely to do in green spaces? *(Please tick all that apply)****(Please tick all that apply)*

- Sit and relax
- Walk dog
- Walk for pleasure
- Walk for transport
- Cycle
- Skateboard
- Jogging/running
- Other sports
- Supervise/ play with children
- Observe wildlife/greenery
- Meet /socialise with people
- Picnic
- Organised activities (e.g. fetes, fairs etc)
- Other activities *(please specify)*

C4) Apart from the activities in the previous question, are there any other reasons why you visit these green spaces? *(please tick all that apply)*

- No other reason
- To relax/reduce stress
- For peace and quiet
- For fresh air
- To escape from city
- To escape from home
- To be in nature
- For beauty
- For inspiration
- Other *(please specify)*.....

C5) What is the green space (in your local area) that you use most often?

C6) On average, how often do you visit or walk through this green space?

- Daily or more
- 4-6 times per week
- 1-3 times per week
- Few times a month
- Monthly or less

C7) On a typical visit how would you get from your home to this green space?

(please tick all that apply on typical visit)

- On foot
- Cycle
- Car
- Bus
- Tram
- Other *(please specify)*.....

C8) How long does it usually take you to get from your home to the green space using this method?

- Up to 5 minutes
- 6-10 minutes
- 11- 15 minutes
- More than 15 minutes

C9) Who would you usually go with? *(please tick all that apply on typical visit)*

- Alone
- Friend(s)
- Partner/spouse
- Child(ren)
- Other *(please specify)*.....

C10) Approximately how long would you usually stay?

- Just pass though
- Less than 30 minutes
- 30 minutes -1hr
- 1-2 hrs
- 2-3 hrs
- Over 3hrs

C11) On average, how often do you visit or walk through green spaces in Sheffield that are NOT within your local area (i.e. not within 15 minutes walk)?

- Daily or more
- 4-6 times per week
- 1-3 times per week
- Few times a month
- Monthly or less
- Never *(if never, please go to section D)*

C12) What are the other green spaces that you visit?

- Eccelsall woods
- Endcliffe Park
- Firth Park
- Graves Park
- Millhouses Park
- Peak District
- Rivelin Valley
- Other(s) *(please name if possible, and describe attributes, eg woods, greens, parks etc)*

<u>Name (if known)</u>	<u>description and approximate location</u>
-------------------------------	--

1).....

2).....

3).....

*(please continue on a separate sheet if necessary)***Section D: Feelings about Green Space**

This section contains questions asking what you think about green spaces in your local area

D1) What are your feelings in relation to the following statements?

Please indicate how you feel about the following statements by ticking the appropriate box from strongly agree to strongly disagree. Please answer this question even if you do not use any green spaces in your local area.

a) There are enough green spaces in my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

b) The green spaces are in good condition in my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

c) The green spaces are well equipped in my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

d) The green spaces in my area are suitable for children to play in

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

e) The green spaces are too small in my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

f) The green spaces are safe in my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

g) The green spaces are attractive in my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

D2) What are your feelings in relation to this second set of statements?

As with the previous question, please indicate how you feel about the following statements by ticking the appropriate box from strongly agree to strongly disagree. Again, please answer this question even if you do not use any green spaces in your local area.

a) Local green spaces are important for the appearance of my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

b) I prefer to use green spaces in other areas of Sheffield

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

c) Local green spaces attracted me to my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

d) Local green spaces are important as places for people to meet in my area

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

E3) What other forms of physical activity do you do? *(please tick all that apply)*

- None *(if none, please go to section F)*
- Jogging/running
- Cycling
- Swimming/water sports
- Football/basketball/cricket/other team sports
- Racquet sports
- Gym workout
- Other *(please specify)*

E4) How often do you do these activities for 30 minutes or more?

- 5+ times per week
- 2-4 times per week
- Once a week
- Few times per month
- Monthly or less
- Never

E5) Where do you usually do these? *(please tick all that apply)*

- Your home
- Specialised indoor facilities (such as leisure centres, gyms, swimming pools etc)
- Specialised outdoor facilities (such as football pitches, basketball courts etc)
- Streets/pavements
- Green space in Sheffield
- Countryside
- Other *(please specify)*

Section F: About You

This section contains questions about your personal and social characteristics that allow us to be sure that we have included different types of people in our survey.

F1) How old are you?

- 16-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75+

F2) What gender are you?

- Male
- Female

F3) What is your current marital status?

- Married
- Cohabiting
- Single (never married and not living with partner)
- Widowed
- Separated
- Divorced

F4) Were you born in the United Kingdom?

- Yes
- No (please write the name of the country where you were born).....

F5) What is your ethnic group? (please choose ONE section from a - e and then tick the appropriate box to indicate your cultural background)**a) White**

- British
- Irish
- Any other White background (please specify).....

b) Mixed

- White and Black Caribbean
- White and Black African
- White and Asian
- Any other Mixed background (please specify).....

c) Asian or Asian British

- Indian
- Pakistani
- Bangladeshi
- Any other Asian background (please specify).....

d) Black or Black British

- African
- Caribbean
- Any other Black background (please specify).....

e) Chinese or other ethnic group

- Chinese
- Any other (please specify).....

F6) What religion are you?

- None
- Christian (all denominations)
- Buddhist
- Hindu
- Jewish
- Muslim
- Sikh
- Other religion (please specify)
- Don't want to say

F7) What qualifications do you have? (please tick all boxes that apply)

- None
- 1+ O levels/CSEs/GCSEs (any grades)/ NVQ Level 1/ Foundation GNVQ
- 5+O Levels, 5+CSEs, 5+GCSE's(A-C)/ School Certificate/ NVQ Level 2/ intermediate GNVQ
- 1+ A Levels/AS Levels/ NVQ Level 3,4,5/ Advanced GNVQ/ Higher School Certificate
- First Degree (e.g. BSc, BA)
- Postgraduate Degree (e.g. MA, PhD, PGCE)
- Other qualifications (please specify)

F8) Do you have regular access (as driver or passenger) to a car /other motor vehicle?

- Yes
- No

F9) What is your employment status?

- Student
 Part time employed
 Full time employed
 Self-employed
 Unemployed
 Looking after home/family
 Retired
 Other (please specify).....

F10) What is your annual household income? *(please include all wages and other forms of income such as benefits, that contribute to your household)*

- Less than £10,000
 £10,000 -19,999
 £20,000-29,999
 £30,000-39,999
 £40,000-49,999
 £50,000-59,999
 £60,000+
 Don't want to say

F11) Over the past twelve months would you say your health has been:

- Good
 Fairly Good
 Not good

F12) Do you have any long-term illness, health problem or disability which limits your daily activities? *(please include problems which are due to old age)*

- Yes *(option to specify)*.....
 No *(please go to section G)*

F13) If yes, is your use of green space affected?

- Yes
 No

Section G

This final section contains some questions about how you feel about your life.

G1) Please tick the number box which best describes how dissatisfied or satisfied you feel about the following aspects of your life:

1= NOT SATISFIED AT ALL
7= COMPLETELY SATISFIED

a)Your Health

- | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Not satisfied at all | | | | | | completely satisfied |

b) The Income of your Household

	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not satisfied at all						completely satisfied

c) Your House / flat

	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not satisfied at all						completely satisfied

d) Your husband / wife / partner

0	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Doesn't apply to me	Not satisfied at all						completely satisfied

e) Your Job (if in employment)

0	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Doesn't apply to me	Not satisfied at all						completely satisfied

f) Your Social Life

	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not satisfied at all						completely satisfied

g) The amount of leisure time you have

	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not satisfied at all						completely satisfied

h) The way you spend your leisure time

	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not satisfied at all						completely satisfied

G2) Using the same scale, how dissatisfied or satisfied are you with your life overall?

	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not satisfied at all						completely satisfied

Thank you for participating in this survey. We are very grateful for your response and welcome any comments you may have about particular questions or the questionnaire as a whole.

Please remember to fill in the reply slip so we can enter you in the prize draw.

*School of Architecture
The Arts Tower
Western Bank
Sheffield
S10 2TN*

November 2007

Dear resident

Experiences of Living in Sheffield
A research study by the University of Sheffield

The University of Sheffield is conducting a voluntary survey into experiences of living in various areas of Sheffield. We are particularly interested in how people living in the city centre feel about the outside environment and local green areas near where they live. Your address was obtained from the electoral register, as someone who lives in or near the city centre.

Your reply is of great importance as we need to get the views of people in different areas of Sheffield. I would therefore be very grateful if you could complete the enclosed questionnaire and send it to me in the FREEPOST envelope (no stamp needed). Please reply even if you feel that some sections of the questionnaire are not relevant to you, because it is important that we gain information from people with a variety of views and experiences. To show our appreciation, everyone who sends back their completed questionnaire and returns the enclosed reply slip will be entered into a **Prize Draw with the chance to win £100.**

As part of the output from this research, we aim to produce maps of Sheffield city centre which may show characteristics from particular postcode areas, however no individual will be able to be identified from this or in any other outputs from this research. We can assure you that your questionnaire reply will be completely confidential and that your name and address will never be sent to any third parties.

Participation in this research is of course entirely voluntary, so please do not feel under any obligation to complete the questionnaire.

Thank you very much for your assistance

Yours sincerely

Katharine Beaney
Research Investigator

Professor Steve Sharples
Research Coordinator

If you have any queries or would like further information please contact:

Katharine Beaney
Email. K.Beaney@sheffield.ac.uk

REPLY SLIP

Prize Draw

In order to preserve confidentiality, we ask you to return this page with your questionnaire if you would like to be entered into the prize draw to win £100, so that your name can be kept separately from your responses. It will also help us to send out the prize as quickly as possible.

Please enter me in the Prize Draw

Your name:.....

Postal address:.....

Follow-up Interviews

As part of this research, we are hoping to conduct in-depth interviews with some people who have returned the questionnaire to discuss in more detail the issues covered in this research. Those who are chosen for interview will be given a **£10 Marks & Spencer Voucher**. Please remember this is entirely voluntary and does not affect your chance of winning the Prize Draw.

Would you be interested in participating?

- Yes, I would like to be considered for interview*
 No, I would not like to be considered for interview

If yes, please could you leave contact details, e.g. email address or phone number which you would be happy for us to use.

Email address:

Phone number:

Alternatively please contact:
 Katharine Beaney
 Email: K.Beaney@sheffield.ac.uk

Please return this page in the FREEPOST ENVELOPE with your questionnaire. This page will be separated from the questionnaire so as to preserve confidentiality.

Interview topics

Topics to be covered are indicated in bold underline, possible prompts and areas to explore are bulleted.

This interview guide was the interview guide as it was in the last interview –new prompts had been added in during the process of interviewing and were not necessarily used depending upon the direction the interview took.

1) City centre living

- When moved to city centre/how long, same address? - what area before – urban/rural?
- Why city centre?/ partic location? Features/lifestyle?
- Feelings: benefits/negatives –improvements? Others see as probs/benefits –valid? (e.g. noise, traffic, crime/anti-social behaviour, facilities-convenience, safety, new developments)
 - Community spirit/neighbourliness/friendliness in area?
 - Feel part of city centre? Why/not?
 - Feel at home in area/satisfied and happy? Why/why not?
 - Compare area of flat to wider area
 - Plans to stay in area/flat

City centre in general as well area where live
Particular local issues?

2) Green space/area usage (green areas such as parks, small greens, woods, public spaces)

- City centre Green space/area usage? (which spaces, what do?) garden usage? before Dev green dev/now? - *If used only dev green, what do now?*
- compare to usage of wider green spaces? what do, how get there, who with?-
- times day/year –reasons –comfortable diff types day etc
- Why use certain green spaces not others? (features/facilities, size, people accessibility/distance, location), if none –why? (facilities/design, condition Other users, time)
- Ever used others?
- positive/negative experiences in green spaces like to tell me about-when enjoyed, not enjoyed

3) Feelings about green spaces/greenery in city centre

- What is pos/neg, -
- enough?
- amount and variety
- quality?
- /facilities/ access /safety –green space in city centre/spaces u use
- improvements - what's needed
- comparison with green space at previous address/other places have lived?(where was that?) –use these more?
- general favourite (do not have to use) –in city centre or wider?. why –features, facilities/ location etc? usage?, special qualities

4) Other users

- Green spaces –place for all? In theory/practice –who think cater for?
- Groups of people use green space together? different for different green spaces?
- Green spaces bring people together?

Positive (events, meeting people) and negative experiences with other users?

- Improvements –how could cater for all?

5) Benefits of green space

- Social/companionship,
- health,
- exercise,
- happiness,
- emotional/mental health
- Community benefits

Need partic green spaces for this? Eg size, type

If not you, what about others?

If suggest positive then how about negative ways?

What about other benefits?

6) General importance of green space/greenery to you/city centre

- important to you?
- greenery-trees on streets/flowers etc?
- How feel without greenspace/garden?
- Important to others/city centre itself? –visitors/workers/residents
- what reasons important/not(appearance, community –detail about how contribute)

7) Definitions

a) Green space

- people diff ideas –what you think? –what size/features/uses/greenery types

Natural/unnatural

Urban /rural

Public/private

Managed/vs unmanaged

- what in city centre is green space?(prompt with names: *peacegdn, devonshire, wintergdn, cathedral*, others?)
- Meaningful term?(to you and others)

b) Well being

- Phys, mental, happiness, satisfaction with life
- Meaningful term?
- What is required for wellbeing? –what aspects of life
- Good aim for policy?

8) Questionnaire

How felt about questionnaire –suggestions, improvements?

9) Anything else you would like to talk about/ask about?

Green Space and Wellbeing Interviews:
Consent Sheet/Voucher Receipt

Please tick the boxes to indicate your agreement

I confirm that I understand that my participation in the interview is voluntary and I can withdraw from the research at any time.

I confirm that I have given my consent to take part in the research and for extracts of my spoken words to be used in output from the research

I confirm that I understand that I will be given a pseudonym in any outputs from the research and I will not therefore be able to be identified.

I confirm that I have received the £10 Marks & Spencer Voucher

Interviewee Signature

Printed Name.....

Date.....

Researcher Signature.....

Printed Name.....

Date.....

Katharine Beaney
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26 November 2007

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Dear Katharine

City centre living, green spaces and wellbeing

I am pleased to inform you that on 26.11.2007 the Department's Ethic Reviewers **approved** the above named project on ethics grounds, on the basis that you will adhere to and use the following documents that you submitted for ethics review:

- Research ethics application form (19.11.2007)
- Participant information sheet
- Letter to participants

However the ethics reviewers have suggested the following:

- You should not go to any interviews unaccompanied. If your supervisor is not available you should take a colleague with you.
- The application does not include the questionnaire so it is not possible for the Ethics Reviewers to judge whether the questions cover sensitive areas. We suggest that you ask your supervisor to approve the questionnaire before it is administered, and to refer it back to the Ethics Review panel if there are any areas that raise ethical issues.

If during the course of the project you need to deviate from the above approved documents please inform me. The written approval of the Department's Ethics Review Panel will be required for significant deviations from or significant changes to the above approved documents. If you decide to terminate the project prematurely please inform me.

Yours sincerely

Judy Torrington

Ethics Administrator