THE ROLE OF URBAN GREEN SPACES IN IMPROVING SOCIAL INCLUSION

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ABSTRACT: Combination of issues such as unemployment or low income, bad health, high crime and family disintegration can result in social exclusion and breakdown of local communities, consequently lowering the quality of life of individuals and groups. These phenomena tend to be concentrated in socially excluded areas. This literature review-based paper argues that urban green spaces in socially excluded areas can increase community cohesion and inclusion of individuals into society in four ways: 1) they are free and accessible to all, 2) they provide space for human interactions, 3) they relieve stress and restore mental fatigue, thus reducing aggression, and 4) they offer opportunities for urban residents to participate in voluntary work. The authors call for green space creation and improvement in socially excluded areas to improve the quality of life of their residents and to create cohesive and inclusive communities.

Keywords - Green space, Social cohesion, Social exclusion, Urban regeneration.

1. INTRODUCTION

In the UK, despite the overall growth of prosperity, the income inequality between rich and poor is increasing (ODPM, 2004). As a result, a significant part of the population, unable to compete successfully in the arena of market capitalism is effectively excluded from participation in mainstream society (Pacione, 1997a). This process of marginalisation from society was branded by Lenoir in 1974 as "social exclusion" (Silver, 1994). The Social Exclusion Unit, set up by the UK Government in 1997, define social exclusion as "a shorthand label for what can happen when individuals or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health and family breakdown" (SEU, 1998: 1). 'Social exclusion', meaning the process and result of the gradual breakdown of the economic, institutional and individually significant bonds that normally tie individuals to the society (Silver, 1994), is thus far more comprehensive than income-focused term 'poverty' (Room, 1995). The opposite of social exclusion is social inclusion. According to Commins (1993), the sense of belonging in society depends on four equally important systems of integration: civic (being an equal citizen in a democratic system), economic (having a valued economic function and sufficient financial resources), social (being able to avail oneself of the social services provided by the state) and, finally, interpersonal (having family and friends, neighbours and social networks to provide care and companionship and moral support when these are needed). This paper concentrates on this last, interpersonal, dimension of inclusion.

Certain groups are arguably at greater risk of social ex

clusion because they differ from the dominant population by, for example, nationality, ethnicity, language, religion, age or health status (Ratcliffe, 1998; Percy-Smith, 2004). Another reason for exclusion is the position of some groups in society. Particularly vulnerable groups are the unemployed, people dependant on state benefits (especially young and elderly), low income groups and lone parents (Percy-Smith, 2004). Forecasts show a likely increase in scale of social exclusion: ageing demographic trend (Ward Thompson, 2002), growth in income inequality (Ravetz, 2000) and more ethnical and cultural diversity

(ODPM, 2004) will intensify demand for the "excluded" to be more fully integrated into society (Ward Thompson, 2002).

In UK cities, clusters of areas exist, where the concentration of socially excluded individuals is particularly high (Pacione, 1997a; Ravetz, 2000; Wallace, 2001; Burden, 2004) and which tend to have the highest levels of disadvantage in employment, education, housing and health (ODPM, 2004). People living in these areas are particularly vulnerable because they are often affected by more than one dimensions of social exclusion (Percy-Smith, 2004); in other words they have been failed by more than one of the systems of integration listed by Commins (1993). Therefore, for these groups, the importance of system of interpersonal integration increases, sometimes being the last link between excluded individuals and wider society. The nature and extent of people's personal relationships has a strong influence on the degree to which they experience inclusion or exclusion (Burchardt *et al.*, 1999; Hutchinson, 2004), and for people living in socially excluded areas, social networks can be indispensable (Henning and Lieberg, 1996) as a source of mutual aid and self-help (Belle, 1982; Burns and Taylor, 1998; Kuo *et al.*, 1998).

Socially excluded people are likely to be pinned down to a locality by the absence of a need to leave the neighbourhood (due to unemployment), poor health or a lack of means to travel (Chanan, 2004). Consequently, their dwellings and estates become the place where a person spends the entire day (Kristensen, 1995), and the people living in the neighbourhood become the main source of interpersonal relations. Thus, it is claimed that the quality of the local community is crucial for the sense of quality of life of people living in socially excluded areas (Ellen and Turner, 1997; Forrest and Kearns, 2001; Tabbush *et al.*, 2006).

It has been observed, that the condition of the immediate surroundings is imperative for the well-being of individuals (Coleman, 1985; Kuo *et al.*, 1998; Phillipson *et al.*, 1999; Kuo, 2001; ODPM, 2005) and according to environmental determinism, a clean, healthy, attractive environment will create a good community (Hutchinson, 2004). In particular, the presence of good quality urban green space is important for urbanites (Kaplan and Talbot, 1988; Kweon *et al.*, 1998; Rogers, 1999). Good quality urban green space is characterised by, among other criteria: adequate physical access, provision of facilities for all social groups, security measures (lighting, wardens), cleanliness, visually pleasing layout, diverse vegetation structure and presence of wildlife (Green Flag Award, no date). Such spaces provide aesthetic experience, improve the quality of urban environment and increase property values (Simmons *et al.*, 1990; Jensen *et al.*, 2004; TCPA, 2004). They also have been proven to enhance physical and mental well-being of urban residents (Hutchinson, 2004; ODPM, 2002; Kweon *et al.*, 1998; Burgess *et al.*, 1988; Kellert, 1996; Takano *et al.*, 2002; O'Brien and Tabbush, 2005; CABE Space, 2005). Accessible green space creates opportunities for recreation and exercise (O'Brien and Tabbush, 2005; CABE Space, 2005) and the affiliation with nature, necessary for maintaining mental health and vitality of city people (Rohde and Kendle, 1994; Kellert, 1996). People's own opinion confirms these scientific findings, as 85 per cent of urban residents believe that green spaces improve their quality of life (ODPM, 2006).

In terms of quality of local communities, the level of social cohesion - the glue which makes a collection of unrelated neighbours into a neighbourhood (Kuo *et al.*, 1998) – is particularly important. Socially cohesive areas can be defined, simply, as areas with a strong sense of community, a strong attachment to place (Forrest and Kearns, 2001) and, most importantly, high levels of interaction between residents (Fletcher, 1995; Healey, 1998; Millennium Ecosystem Assessment, 2003). Jon Elster (1989: 248) even claimed that "there are no societies, only individuals who interact with each other". Integration into a local community can be a stepping stone to inclusion into wider society (Gehl, 1987; Hutchinson, 2004), consequently reducing the risk of being socially excluded.

Considering the importance of community cohesion for the individuals living in the socially excluded areas, and the equal importance of the immediate surroundings, this paper goes on to answer the question, whether urban green spaces can contribute to the creation of more cohesive communities in socially excluded areas and, therefore, improve the quality of life of individuals living there and facilitate their inclusion into wider society.

2. METHODOLOGY

This paper summarises part of a literature review carried out between April and October 2006 for a PhD project titled "Ecosystem health and social inclusion: the case of urban green spaces". The relevant literature was identified through online search engines: Google Scholar and Web of Knowledge. The keywords, used separately and in various combinations were: social exclusion, social inclusion, social cohesion, urban park, green space and open space. References of the identified literature positions were analysed to find other relevant sources. The literature reviewed included articles in peer-reviewed journals (mainly Landscape and Urban Planning, Urban Studies, Journal of Leisure Research, Leisure Studies, and Environment and Behavior), landmark book publications, and policy documents, guidance and reports issued by the UK Government, its agencies and advisory bodies (mainly Office of the Deputy Prime Minister, Department of the Environment, Transport and Regions, Social Exclusion Unit and the Commission for Architecture and the Built Environment). This information was supported by a review of reports of non-governmental organisations, reports of research groups, and conference proceedings. The literature was reviewed thematically to gauge the contribution of urban green spaces to community cohesion areas and to identify the mechanisms by which this contribution is realised.

3. THE ROLE OF URBAN GREEN SPACES IN IMPROVING SOCIAL COHESION

Good quality green spaces are believed to help foster community development and social inclusion (DTLR, 2002, cited in CABE Space, 2005; ODPM, 2002; Swanwick *et al.*, 2003). Urban residents' own experience supports this belief: "people asked about they opinions about local parks over and over emphasised the very positive benefits they and their families gained from their local green spaces - the way in which they help build a sense of community" (CABE Space, 2005 p1). The question arises: by what means can urban green spaces strengthen communities and facilitate social inclusion?

The literature review carried out here allowed the authors to distinguish four main mechanisms by which green spaces can enhance the community cohesion, and contribute to the inclusion of individuals into wider society. These mechanisms are as follows: 1) Green spaces are free and accessible public amenities, 2) Green spaces are social arenas, 3) Green spaces relieve stress and mental fatigue, 4) Green spaces offer opportunities for voluntary involvement. The following paragraphs explore the nature of these mechanisms.

Green Spaces are Free and Accessible Public Amenities

Green spaces in the UK are one of the very few free and publicly accessible facilities which, at least theoretically, are equally available to everyone, irrespective of personal circumstances (ODPM, 2002). In such environments, it is not necessary to have money or to be a consumer, what can help low income groups to participate in leisure while avoiding public scrutiny

(Ward Thompson *et al.*, 2004, O'Brien and Tabbush, 2005). For this reason, Ward Thompson (2002) sees the green spaces as places where democracy is "worked on the ground".

The people who perhaps have most need for access to public parks and the opportunity for sociability in a safe, outdoor setting are those who are least freely mobile, because of their economic status, lack of private transport, age or illness (Ward Thompson, 2002). There is unambiguous evidence of underparticipation by these groups in countryside recreation (Slee, 2002, Morris, 2003). Urban green spaces can offer room for leisure and contact with nature without the need for travelling (Burgess *et al.*, 1988).

However, there are two main obstacles to unlimited use of green space by all. The first one is the uneven distribution of green spaces in urban areas. In the UK cities and all over the world, the distribution of socially excluded areas often coincides with little green space of low quality (Pacione, 1997b; Johnston and Shimada, 2004; Ravetz, 2000; Yli-Pelkonen and Niemela, 2005). The example of Greater Manchester clearly shows this correlation: it is estimated that a third of the Greater Manchester area is open space (Rudlin and Falk, 1999) but while the wealthy suburbs have tree coverage of *circa* ten per cent, in inner-city neighbourhoods trees constitute only two per cent of total area (Ravetz, 2000). This limits the opportunities of some urbanites to enjoy contact with nature (Kellert, 1996) and some recreational activities (Turner, 1996). To avoid such discrepancies, appropriate planning for green spaces at the city scale needs to be put in place.

The second problem is that neglected parks seem to attract anti-social behaviour (CABE Space, 2005) and some people, predominantly women, do not visit parks for fear of their personal safety (English Heritage *et al.*, 2003). For ethnic minorities, perceived discrimination and fear of racial abuse appear to limit their use of recreational sites (Floyd *et al.*, 1993; Gobster and Delgado, 1993, cited in Gobster, 2002; Wong and Auckland, 2005). Hence, the measures of safety, such as layout, lighting or self-policing can decide the reputation and use of a given space (Luymes and Tamminga, 1995).

Green Spaces are Social Arenas

According to Gehl (1987), social interaction in open spaces offers an opportunity to be with other people in a relaxing and undemanding way. Being among others, seeing and hearing them, implies positive experiences and offers alternatives to being alone. Green spaces provide opportunities for contact at a modest level and a possibility for maintaining already established contacts (Gehl, 1987). It is claimed that the relationships among neighbours grow primarily in the course of the repeated visual contacts and through short-duration outdoor talks and greetings (Greenbaum, 1982; Kuo *et al.*, 1998). Therefore, public spaces, especially in high density housing, are essential places that enable residents to establish social interaction and recognition (Gärling and Golledge, 1989, cited in Huang, 2006). In other words, they can become "social arenas" (Carr *et al.*, 1992).

The ties between people within urban neighbourhoods tend to be much weaker than those with people outside the neighbourhood (Forrest and Kearns, 2001). However, usually the number of weak ties (acquaintance up to the level of short talk) in the neighbourhood is three times greater than strong ties (friendship, work relations), and for the residents of the neighbourhood "these contacts meant a 'feeling at home', 'security' and 'practical as well as social support'"(Henning and Lieberg, 1996 p22). For those with no friends or family, lack of weak social ties resulting, in some cases, from absence of green space (Gehl, 1987), can mean the disappearance of all social ties, deepening their social exclusion.

For many belonging to ethnic minority groups, visiting parks is largely a social contact–oriented rather than a solitary activity (Ho *et al.*, 2005; Gobster, 2002; Gómez, 2002). Urban

green spaces are extremely important for those who have limited possibilities to venture outside their immediate surroundings: lone parents, adolescents, youngsters and elderly (Burgess *et al.*, 1988). For those isolated groups, social contacts in parks can provide a source of information about the social world outside and inspiring impulses (Gehl, 1987). Gobster (1998) and Swanwick *et al.* (2003) claimed that parks offer a great opportunity for contact between diverse groups. Thus, urban green spaces can bring together members of communities and encourage their greater interaction (ODPM, 2002; English Nature, 2004; Burgess *et al.*, 1988), consequently improving social inclusion of individuals (Kweon *et al.*, 1998; Rogers, 1999).

Unfortunately, unsympathetic outdoor environments present in many of the deprived areas can be an off-putting factor (Wong and Auckland, 2005) and cause withdrawal and further isolation of individuals (Kristensen, 1995). Also the location of green space can be unfortunate. Solecki and Welch (1995), reporting on work form the USA, show examples of Boston's parks as "green walls" between two starkly contrasting neighbourhoods, and how these green areas, of otherwise great potential, changed into disused and neglected barriers. Huang (2006) argues that wrongly laid out green space also has a limited likelihood of becoming a social arena. Hence, appropriate location, design and management of green spaces have pivotal roles in their use (Burgess *et al.*, 1988; Luymes and Tamminga, 1995).

Green Spaces Relieve Stress and Mental Fatigue

It cannot be denied that the city is a stressful environment for its residents (Bollund and Hunhammar, 1999). The symptoms of stress and mental fatigue include irritability, inattentiveness, and decreased control over impulses, such as outbursts of anger (Kuo and Sullivan, 2001 and references therein). These symptoms might lower the quality of social interactions (Kuo *et al.*, 1998).

The levels of stress are particularly high for people suffering from social exclusion, e.g. unemployed (Ward Thompson *et al.*, 2004) and those living in areas characterised by high levels of crime (Wong and Auckland, 2005; Hirschfield and Bowers, 1997). Also among people from ethnic minority backgrounds instances of stress and depression are double in number compared to the population as a whole (Wong and Auckland, 2005).

A considerable body of studies indicates that vegetation aids the recovery from mental fatigue. Contact with nature in a variety of forms has been linked with enhanced cognitive functioning (e.g. Kaplan, 1984; Kaplan and Kaplan, 1989; Hartig *et al.*, 1991; Bell, 1997). It is suggested that people may benefit from just visual encounters with nature when they are uncomfortably stressed or anxious (Ulrich, 1983). But being immersed in natural green space, in particular walking through it, is seen as the most efficient remedy in recovery from stress (Hartig *et al.*, 1989; Bell, 1997). Green spaces provide an element of escapism, a release from the predictable urban environment into a more spontaneous one (Gilbert, 1991) when one can feel as if "being away" (Turner, 1996; O'Brien and Tabbush, 2005). The opportunity to visit natural green space to release stress and gain a perspective on life can be particularly important for people suffering from everyday hardships and social pressure (Ward Thompson, 2004; CABE Space, 2005). Thus, urban green spaces (particularly woodlands) are seen as restorative environments (O'Brien and Tabbush, 2005; Kaplan and Kaplan 1989).

The direct impact of vegetation and green spaces on people's behaviour and social interactions was observed. Kuo *et al.* (1998), in a study in high density social housing, found that the more vegetation surrounded residents' building the more they socialised with neighbours, the more familiar with nearby neighbours they were, and the greater was their sense of community. Kuo (2001) found that individuals who had some nearby vegetation

were significantly more effective in managing their major life issues than were their counterparts living in barren environments, and hence the first group were less likely to be threatened by social exclusion.

However, the great restorative potential of nature in urban green spaces can be limited by the fear of crime and antisocial behaviour (Burgess *et al.*, 1988). Problems with physical access and conflicts between groups of interests (e.g. dog walkers versus parents and children) can also generate additional stress instead of relieving it (Wong and Auckland 2005). Thus, the stress-relieving capacities of green spaces will depend on the appropriate design and management of green spaces.

Green Spaces Offer Opportunities for Voluntary Involvement

It is claimed that community activity is a good in itself, facilitating social ties, building social cohesion (Summit and Sommer, 1998; Chanan, 2004) and making successful outcomes "in such fields as education, urban poverty, unemployment, the control of crime and drug abuse, and even health" more likely (Putnam, 1995 p65). One type of community activity that is generally well-received by urban residents is participation in the design and stewardship of green space (Bryant, 2006). It has been observed that such participation can help strengthen communities (Dunnett *et al.*, 2002; TEP, 2003; ODPM, 2006) and increase social cohesion as people develop more capacity for mutual aid (Chanan, 2004). *Vice versa*, the most successful green spaces are those stewarded by local communities (Ravetz, 2000). Furthermore, involving residents in the design of planting schemes is an opportunity to address concerns about safety in public open spaces (Johnston and Shimada, 2004). Carefully designed planting schemes can not only create a more liveable environment but may actually reduce crime levels (Kuo and Sullivan,2001; Kuo, 2001).

Working with plants (horticulture therapy) brings certain benefits for individuals, such as enhanced self-esteem, recovery from depression and reduced aggression (Smardon, 1988; Aldridge and Sempik, 2002), allowing for better social contacts. A significant advantage of participation in voluntary schemes for individuals is that they gain additional skills that improve their employability and aid their inclusion into the society (Chanan, 2004). This strategy of training is successfully put into life by the London-based charity for homeless and people in treatment for drug and alcohol abuse - St Mungo’s (2006).

There are already over 4,000 community groups involved in green space across the country (ODPM, 2006). Furthermore, CABE Space’s (2005) survey results show that 75 per cent of the people would like to be involved in improving their local area in some way. However, while voluntarism is often a strong feature of poor areas (Forrest and Kearns, 2001), people living in the most disadvantaged neighbourhoods have lower levels of residential involvement in neighbourhood tree planting and community green-up efforts than better-off citizens (Melles, 2005). Also the under-representation of ethnic minorities in the urban environmental movement has been observed (Johnston and Shimada, 2004 and the references therein). Therefore, while participation in voluntary schemes relating to green spaces can be seen as an activity that significantly contributes to an increase in social inclusion, in reality it might not be carried out where they would bring the most benefits for local communities, environment and, consequently, the entire society.

4. DISCUSSION

This literature review presents the mechanisms by which urban green spaces can facilitate social inclusion of individuals and cohesion of communities. A number of empirical studies, echoed in Government publications, describe the actual and perceived advantages of green spaces. However, it is clear that not every green space can contribute to building strong communities. As Jane Jacobs (1961, p99) observed, "parks are volatile places: they tend to run to extremes of popularity and unpopularity". As identified earlier, the design and management of green space can easily tip the scale between the two. Green spaces' quality needs to meet local residents' expectations so that people want to use them and feel welcomed and relaxed there. However, what does "good quality green space" mean? While Green Flag Award (no date) provides a generalised list of criteria, Dearden (1984, p294) noted that society is not homogenous in terms of landscape preferences. It has been observed, both in the UK and USA, that the majority of studies on requirements towards green spaces have concerned young, white, middle and upper class individuals (Tinsley and Tinsley, 2002; Morris, 2003). Therefore, there is a gap in research as to what are the needs, wants and expectations of the remaining sectors of society (DETR, 2000; DETR, 2002; Rishbeth, 2002) and to what extent their needs are met by the currently provided green spaces.

Alongside the matter of quality of green spaces physical accessibility is crucial: it has been observed that the majority of visits to urban green spaces are made on foot (Burgess *et al.*, 1988; Pauleit *et al.*, 2003) and for most people the distance between 500m and 1km is the furthest they would walk to a park (Coles and Bussey, 2000). General observations (Ravetz, 2000; Yli-Pelkonen and Niemela, 2005) suggest that the provision of green space in the inner-city areas might not be sufficient. Therefore, a question arises, what is the current distribution of green space in socially excluded areas? And, more importantly, is the provision of green space sufficient for the needs of the residents?

The benefits of participation in voluntary activities to individuals and communities have been made clear; however, the level of participation in the excluded areas is lower than elsewhere. This might be because of excluded groups' concerns with the immediate issues of economic and social character (Melles, 2005; Johnston and Shimada, 2004), lack of time to participate or the perception that the environmental movement is being elitist, cliquish, and dominated by people who are white and middle class (Johnston and Shimada, 2004; CABE Space, 2005). Another reason might be simply the lack of opportunities to participate in such activities, because none are organised in particular places. To learn how voluntary action efforts can be more successful the exact reasons for under-participation in excluded areas need to be uncovered.

Finally, while there is a romantic notion of vibrant close-knit communities existing in poorer areas (Chanan 2004), Forrest and Kearns (2001) suggest that in socially excluded areas there is less interaction, acquaintance, courtesy and everyday kindness. Therefore, it can be asked, whether a presence of green space, even one of desired by local residents quality, is enough to counterpart the history of little interaction and to create the close-knit communities that might not have ever existed in a given place?

Answering questions about the levels of satisfaction with currently provided space, about needs and wants of local residents and their willingness to participate is needed for successful planning, stewardship and management of urban green spaces. Acquiring this knowledge is the more important in the increasingly diverse and stratified British society, up to 60 per cent of which is threatened by social exclusion (Hutton, 1995).

The authors in subsequent research will contribute to the knowledge about the potential of green spaces to improve social inclusion. This will be done by 1) assessment of the accessibility of green spaces in socially excluded areas in comparison to the situation in the

whole of Greater Manchester, with the use of GIS, 2) interviews with residents of selected socially excluded areas investigating their use of green spaces (type and frequency), their preferences towards green spaces and experience of participation/willingness to participate in volunteering activities, and 3) structured observation of people's behaviour in green spaces.

5. CONCLUSIONS

While socio-spatial divisions and exclusion in Britain's cities are long-standing phenomena and may be regarded as an unavoidable consequence of capitalist urban development, the quality of life of residents of excluded areas should be improved, both in their interest and for the benefit of the entire society (Pacione, 1997b). According to Forrest and Kearns (2001), what separates the "successful" neighbourhood from the "unsuccessful" one is the level of social cohesion, which helps to break the spiral of decline. Therefore, any mechanism that may improve social interaction and increase sense of belonging to place and community should be implemented. This paper has presented the evidence for four mechanisms by which urban green spaces can improve social inclusion and community cohesion: green spaces as free and accessible public amenities; green spaces as social arenas; stress-relieving capacity of contact with nature; and opportunities for participation in voluntary schemes. While many questions remain to be answered, the relevance of urban green spaces to social problems cannot be dismissed (Kellert 1996) and their role in contribution to the quality of life of socially excluded people must be recognised (Ward Thompson, 2004). In light of the predicted increase in factors causing social exclusion and change in society structure there is clearly a need for planning today for tomorrow's communities (Ravetz, 2000). Therefore, green spaces should be included in plans of economic, environmental and social regeneration (Swanwick *et al.*, 2003) and, consequently, made accessible to all urban residents (Burgess *et al.*, 1988).

6. REFERENCES

Aldridge, J. and Sempik, J. (2002) *Social and therapeutic horticulture: evidence and messages from research*, Evidence Issue 6, CCFR Loughborough University, Loughborough

Bell, S. (1997) *Trees: fountains of life*, Landscape Design 261, pp21-23

Belle, D.E. (1982) *The impact of poverty on social networks and supports*, Marriage and Family Review 5(4), pp89-103

Bryant, M.M. (2006) *Urban landscape conservation and the role of ecological greenways at local and metropolitan scales*, Landscape and Urban Planning 76, pp23-44

Burchardt, T., Le Grand, J. and Piachaud, D. (1999) *Social exclusion in Britain 1991-1995*, Social Policy and Administration 33(3), pp227-244

Burden, T. (2004) *Poverty* IN Percy-Smith, J. Policy responses to social exclusion. Towards inclusion?, Open University Press, Maidenhead, pp43-58.

Burgess, J., Harrison, C.M. and Limb, M. (1988) *People, parks and the urban green: a study of popular meanings and values for open spaces in the city*, Urban Studies 25, pp455-473

Burns, D. and Taylor, M. (1988) *Mutual aid and self help*, Polity Press, Bristol

Commission for Architecture and the Built Environment (CABE) Space. (2005). *Decent parks? Decent behaviour?*, CABE Space, London

Carr, S., Francis, M., Rivlin, L.G. and Stone, M. (1992) *Public Space*, Cambridge University Press, Cambridge

Chanan, G. (2004) *Community responses to social exclusion* IN Percy-Smith, J. (ed) Policy responses to social exclusion. Towards inclusion?, Open University Press, Maidenhead, pp201-215

Coleman, A. (1985) *Utopia on trial*, Hilary Shipman, London

Coles, R.W. and Bussey, S.C. (2000) *Urban forest landscapes in the UK - progressing the social agenda*, Landscape and Urban Planning 52, pp181-188

Commins, P. (ed) (1993) *Combating exclusion in Ireland 1990-1994. A Midway Report*, European Commission, Brussels

Department of the Environment, Transport and Regions (DETR) (2000) *Our Towns and Cities: The Future*, The Stationery Office, London

Department of the Environment, Transport and Regions (DETR) (2002) *Improving urban parks, play areas and green spaces*, The Stationery Office, London

Dunnett, N., Swanwick, C and Wooley, H. (2002) *Improving urban parks, play areas and open spaces. Urban research report*, DTLR, London,

Ellen, I. and Turner, M. (1997) *Does neighbourhood matter? Assessing recent evidence*, Housing Policy Debate 8, pp833–866

Elster, J. (1989) *The Cement of Society: A study of social order*, Cambridge University Press, Cambridge

English Heritage, Sport England and the Countryside Agency (2003) *The use of public parks in England 2003*, English Heritage, Swindon

English Nature (2004) *Nature for people. Research Report 567*, English Nature, Peterborough

Fletcher, R. (1995) *The limits of settlement growth*, Cambridge University Press, Cambridge

Floyd, M.F., Gramman, J.H. and Saenz, R. (1993) *Ethnic factors and the use of public outdoor recreation areas: The case of Mexican Americans*, Leisure Sciences 15, pp83-98.

Forrest, R. and Kearns, A. (2001) *Social cohesion, social capital and the neighbourhood*, Urban Studies 38(12), pp2125-2143

Gehl, J. (1987) *Life between buildings. Using public space*, Van Nostrand Reinhold, New York

Gobster, P.H. (1995) *Perception and use of a metropolitan greenway system for recreation*, Landscape and Urban Planning 33, pp401-413

Gobster, P.H. (1998) *Urban parks as green walls or green magnets? Interracial relations in neighbourhood boundary parks*, Landscape and Urban Planning 41, pp43-55

Gobster, P.H. (2002) *Managing urban parks for a racially and ethnically diverse clientele*, Leisure Sciences 24, pp143-159

Gómez, E. (2002) *The ethnicity and public recreation participation model*, Leisure Sciences 24, pp123-142

Greenbaum, S.D. (1982) *Bridging ties at the neighbourhood level*, Social Networks 4, pp367-384

Green Flag Award (no date) *A manual,* Available online: http://www.greenflagaward.org.uk/ Accessed on 05.12.2006.

Hartig, T., Mang, M. and Evans, G.W. (1991) *Restorative effects of natural environment experience*, Environment and Behavior 23, pp3-26

Healey, P. (1998) *Institutionalism theory, social exclusion and governance* IN Madanipour, A., Cars, G. and Allen, J. (eds) Social exclusion in European cities: processes, experiences and responses, Jessica Kingsley, London

Henning, C. and Lieberg, M. (1996) *Strong ties or weak ties? Neighbourhood networks in a new perspective*, Scandinavian Housing and Planning Research 13, pp3–26
Ho, C., Sasidharan, V., Elmendorf, W., Willits, F.K., Graefe, A. and Godbey, G. (2005) *Gender and ethnic variations in urban park preferences, visitation, and perceived benefits*, Journal of Leisure Research 37(3), pp281-306
Huang, S.-C.L. (2006) *A study in outdoor interactional spaces in high-rise housing*, Landscape and Urban Planning 78, pp193-204
Hutchinson, J. (2004) *Urban policy and social exclusion* IN Percy-Smith, J. (ed) Policy responses to social exclusion. Towards inclusion?, Open University Press Maidenhead, pp164-183
Hutton, W. (1995) *The state we're in: Why Britain Is in Crisis and How to Overcome It*, Jonathan Cape, London
Jacobs, J. (1961) *The death and life of great American cities. The failure of town planning*, Penguin Books Ltd, Harmondsworth
Jensen, R., Gatrell, J., Boulton, J. and Harber, B. (2004) *Using remote sensing and geographic information systems to study urban quality of life and urban forest amenities*, Ecology and Society 9(5), pp5 [online]
Johnston, M. and Shimada, L.D. (2004) *Urban forestry in a multicultural society*, Journal of Arboriculture 30(3), pp185-191
Kaplan, R. (1984) *Wilderness perception and psychological benefits: an analysis of continuing program*, Leisure Sciences 6, pp271-290
Kaplan, R. and Kaplan, S. (1989) *The experience of nature*, Cambridge University Press, New York
Kellert, S.R. (1996) *The value of life. Biological diversity and human society*, Island Press/Shearwater Books, Washington
Kristensen, H. (1995) *Social exclusion and spatial stress: the connections* IN Room, G. (ed) Beyond the threshold. The measurement and analysis of social exclusion, The Policy Press, Bristol, pp146-157
Kuo, F.E. (2001) *Coping with poverty. Impacts of environment and attention in the inner city*, Environment and Behavior 33(1), pp5-34
Kuo, F.E. and Sullivan, W.C. (2001) *Environment and crime in the inner city. Does vegetation reduce crime?*, Environment and Behavior 33(3), pp343-367
Kuo, F.E., Sullivan, W.C., Coley, R.L. and Brunson, L. (1998*) Fertile ground for community: Inner-city neighbourhood common spaces*, American Journal of Community Psychology 26, pp823-851
Kweon, B., Sullivan, W.C. and Wiley, A.R. (1998) *Green common spaces and the social integration of inner city older adults*, Environment and Behaviour, 30, pp832-858.
Luymes, D.T. and Tamminga, K. (1995) *Integrating public safety and use into planning urban greenways*, Landscape and Urban Planning 33, pp391-400
Melles, S.J. (2005) Urban bird diversity as an indicator of human social diversity and economic inequality in Vancouver, British Columbia, Urban Habitats 3(1), pp25-48
Millennium Ecosystem Assessment (2003) *Ecosystems and human well-being: a framework for assessment*, Island Press, Washington
Morris, N. (2003) *Black and minority ethnic groups and public open space*, OPEN Space, Edinburgh College of Art and Herriot-Watt University, Edinburgh (unpublished)
North West Regional Assembly (NWRA) (2006) *Submitted Draft Regional Spatial Strategy for the North West of England*, NWRA, Wigan.
O'Brien, L. and Tabbush, P. (2005) *Accessibility of woodland and natural spaces. Addressing crime and safety issues*, Social Research Group of Forest Research, Edinburgh

Office of the Deputy Prime Minister (ODPM) (2002) *Planning Policy Guidance 17: Planning for open space, sport and recreation*, The Stationery Office, London
Office of the Deputy Prime Minister (ODPM) (2004) *Tackling social exclusion: Taking stock and looking to the future*, Social Exclusion Unit, London
Office of the Deputy Prime Minister (ODPM) (2005) *Sustainable communities: Building for the future*, ODPM, London
Office of the Deputy Prime Minister (ODPM) (2006) *Enhancing urban green space*, The Stationery Office, London
Pacione, M. (1997a) *Introduction* IN Pacione, M. (ed) Britain's cities. Geographies of division in urban Britain, Routledge, London and New York, pp1-6
Pacione, M. (1997b) *Urban restructuring and the reproduction of inequality in Britain's cities* IN Pacione, M. (ed) Britain's cities. Geographies of division in urban Britain, Routledge, London and New York, pp 7-60
Pauleit, S., Slinn, P., Handley, J. and Lindley, S. (2003) *Promoting the natural greenstructure of towns and cities: English Nature's Accessible Natural Greenspace Standards Model*, Built Environment 29(2), pp157-170
Percy-Smith, J. (2004) *Introduction: the contours of social exclusion* IN Percy-Smith, J. (ed) Policy responses to social exclusion. Towards inclusion?, Open University Press, Maidenhead, pp1-21
Phillipson, C., Bernard, M., Phillips, J. and Ogg, J. (1999) *Older people's experiences of community life: patterns of neighbouring' in three urban areas*, Sociological Review 47, pp715–739
Putnam, R. (1995) *Bowling alone: America's declining social capita*l, Journal of Democracy 6(1), pp35-42
Ratcliffe, P. (1998) *"Race", housing and social exclusion*, Housing Studies 13(6), pp807-818
Ravetz, J. (2000) *City Region 2020*, TCPA and Earthscan, London
Rishbeth, C. (2002) *The landscape of the global village*, Landscape Design 310, pp27-30
Rogers, R. (1999) *Towards an urban renaissance*, Urban Task Force, DETR, London
Rohde, C.L.E. and Kendle, A.D. (1994) *Human well-being, natural landscapes and wildlife in urban areas*, English Nature Science 22
Room, G. (1995) *Poverty and social exclusion: the new European agenda for policy and research* IN Room, G. (ed) Beyond the threshold. The measurement and analysis of social exclusion, The Policy Press, Bristol pp1-9
Rudlin, B. and Falk, N. (1999) *Building the 21st century home*, Architectural Press, Oxford
Silver, H. (1994) *Social exclusion and social solidarity: three paradigms*, International Labour Review 133, pp531-578
Simmons, S.A, Pocock R.L. and Barker, A. (1990) *Nature conservation in towns and cities: a framework for action*, Nature Conservancy Council, Peterborough
Slee, B. (2002) *Social exclusion in the countryside*, Countryside Recreation 10(1), pp2-7
Smardon, R.C. (1988) *Perception and aesthetics of the urban environment: review of the role of vegetation*, Landscape and Urban Planning 15, pp85-106
Social Exclusion Unit (SEU) (1998) *What is social exclusion?* SEU, London
Solecki, W.D. and Welch, J.M. (1995) *Urban parks: green spaces or green walls?*, Landscape and Urban Planning 32, pp93-106
St. Mungo's (2006) Annual Review 2006, St. Mungo's, London
Summit, J. and Sommer, R. (1998) *Urban tree-planting programs - a model for encouraging environmentally protective behaviour*, Atmospheric Environment 32(1), pp1-5
Swanwick, C., Dunnett, N. and Woolley, H. (2003) *Nature, role and value of green space in towns and cities: an overview*, Built Environment 29(2), pp94-106

Tabbush, P., Hislop, M., O'Brien, L.,Martin, S., Morris, J., Edwards, D. and Thomson, M. (2006) *Forestry for People: A Proposed Evaluation for Forestry Commission Scotland*, Social Research Group of Forest Research, s.l.

Takano, T., Nakamura, K. and Watanabe, M. (2002) *Urban residential environments and senior citizens' longevity in mega city areas: the importance of walkable green spaces*, Journal of Epidemiology and Community Health 56, pp913-918

Tinsley, H.E.A. and Tinsley, D.J. (2002) *Park usage, social milieu and psychosocial benefits of park use reported by older urban park users from four ethnic groups*, Leisure Sciences 24, pp199-218

The Environment Partnership (TEP) (2003) *The public benefit recording system*, TEP, Northwest Development Agency and Forestry Commission, Warrington

Town and Country Planning Association (TCPA) (2004) *Biodiversity by design. A guide for sustainable communities,* TCPA, London

Turner, T. (1996) *City as landscape. A post-postmodern view of design and planning*, E&FN Spon, London

Wallace, M. (2001) *A new approach to neighbourhood renewal in England*, Urban Studies 38(12), pp2163-2166

Ward Thompson, C., Aspinall, P., Bell, S., Findlay, C., Wherret, J. and Travlou, P. (2004) *Open space and social inclusion: local woodland use in Central Scotland*, Forestry Commission, Edinburgh

Ward Thompson, C. (2002) *Urban open space in the 21st century*, Landscape and Urban Planning 60, pp59-72

Wong, J.L. and Auckland, R. (2005) *Ethnic communities and green spaces. Guidance for green space managers,* Black Environment Network, Llanberis

Yli-Pelkonen, V. and Niemela, J. (2005) *Linking ecological and social systems in cities: urban planning in Finland as a case*, Biodiversity and Conservation 14, pp1947-1967