

# Mixed-Use Trade-Offs: How to Live and Work in a 'Compact City' Neighbourhood

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*This paper reports on research into the experience of living and working in a mixed-use urban neighbourhood. It revisits the concept of mixed-use as part of the compact city idea and examines the problems of implementing and delivering mixed-use developments and neighbourhoods. Drawing on detailed land-use analysis, interviews with households and a survey of businesses, this paper challenges key compact city assumptions by suggesting that proximity of uses and integration within wider networks of urban physical, social and economic infrastructure are crucial for successful mixed neighbourhoods. It presents the compromises or trade-offs that residents and businesses have to make in order to sustain mixed-uses and identifies who currently does not benefit from mixed-use environments. The paper ends by questioning the point at which such trade-offs become unsustainable.*

Mixed land use, linked to high residential density, is one of the core elements of the compact city ideal and has been widely identified as a useful mechanism for delivering urban sustainability objectives including urban vitality, efficient use of urban utilities and social cohesion. At the sharp end of planning practice the sustainability agenda is often reduced to specific identifiable interventions that can be enforced and measured. Breheny foresaw this response when he suggested that:

... the effectiveness of grand urban sustainability strategies may rest or fall on the degree (to which) modest sounding initiatives – densities, car parking standards, mixed-uses – can be made to 'stick'. (Breheny, 1996, p. 26).

This paper revisits the 'modest sounding initiative' of mixed land use. Drawing on existing policy and research literature, it briefly reviews the conceptual and practical problems inherent in trying to make

mixed-use 'stick'. It is suggested that our poor understanding of existing mixed-use environments hinders policy development and current implementation. The paper then reports on a case study of Clerkenwell, a densely populated mixed-use area located to the north of the City of London. This study had two aims: to investigate the spatial dimensions of mixed-use environments with particular reference to generating diversity and vitality; and to examine the everyday experiences of living and working in mixed-use environments (Evans *et al.*, 2009; Penn *et al.*, 2009).<sup>1</sup> Drawing on detailed land-use analysis, interviews with households and a survey of businesses, it challenges key compact city assumptions by suggesting that proximity of uses and integration within networks of urban physical, social and economic infrastructure are central to successful mixed neighbourhoods. It then presents the compromises and trade-offs

that residents and businesses have to make in order to sustain mixed-uses. The paper ends by questioning the point at which such trade-offs become unsustainable.

### Conceptualizing Mixed-Use

The promotion of mixed-use as a planning concept emerged alongside a dismissal of CIAM<sup>2</sup> functionalism. In the seminal *Green Paper on the Urban Environment*, the Commission of the European Communities, insisted on the 'mixing of urban uses – of living, moving, working' taking as its model 'the old traditional life of the European City stressing density, multiple use, social and cultural diversity' (CEC, 1990, p. 43). A key objective of European urban policy ever since has been to raise the quality of urban life by (re)creating compact 'European' townscapes with integrated mixes of residential, commercial and public amenity uses (European Commission, 2009). In the UK, the Urban White Paper (DETR, 2000) adopted a similar approach and in so doing addressed a reform of planning by advocating the promotion of 'mixed development, so homes are closer to jobs and services' (para 4.24). Likewise in North America cities already concerned about the decentralizing effects of 'megamalls' and edge cities, have introduced mixed-use zoning (Grant, 2004). In many places mixed-use development is now the planning norm rather than the exception.

However, definitions and typologies of mixed-use remain muddled. For Rowley (1996) mixed-use needs to be understood in terms of its grain, density and permeability; setting or scale (building, block, street or neighbourhood); location (central, inner or suburban/edge); existing and future residential and commercial tenures; processes by which mixing takes place (conservation, incremental change or wholesale redevelopment); and forms and management of temporal space sharing. It is, he argues, the combination of these factors that influences the character and quality of mixed-use.

Likewise Rodenburg and Nijkamp (2004) attempt to represent the complexity of space, activity, scale and time of multifunctional (mixed) land use by prioritizing two processes: an increase in spatial heterogeneity over time and the 'economies of synergy' emerging from relationships between co-existing land uses. Neither approach has led to a workable definition or typology.

As a consequence, the contemporary idea of mixed-use has been given its greatest impetus from the rediscovery of Jane Jacobs' nostalgic depictions of 1950s New York inner-city neighbourhoods (Aldous, 1992; Biddulph *et al.*, 2003; CNU, 2001). Jacobs's declaration (1961) that short blocks, assorted building types and varied street morphology created (the conditions for) economic and social diversity (and therefore animation and security) have been widely reproduced by a new generation of urban policy-makers. Although Jacobs's original description of mixed-use streets failed to recognize the wider context of post-war social and economic restructuring (Breheny, 1996, p. 20) it did coalesce with late twentieth-century analysis of the new urban economy (Hutton, 2008; Scott, 2000) and the emergence of an 'urban idyll' inhabited by consumption-oriented sub-cultures (Allen, 2007; Featherstone, 2007; Hoskins and Tallon, 2004). An important incentive for promoting the idea of mixed-use was therefore the remaking of the inner city in response to the new economic reality of SMEs, services and creative industries and a new urbane population.

### Practising Mixed-Use

Research into current forms and outcomes of mixed-use practice is also limited. A review of twelve new build mixed-use schemes and one mixed-use neighbourhood found that the most common combination is a dual mix of market housing and office development. There is reluctance on the part of planning authorities to approve schemes including industrial or leisure activities (commonly

perceived as incompatible with residential use) (ODPM, 2003). Regardless of spatial scale, the desired vitality outcomes of these schemes are only delivered when 'uses visibly activate(d) the ground floor level of buildings and the street environment in a positive and integrated way' (*Ibid.*, p. 10). Most schemes struggle to generate the desired integration while poor synergy with the surrounding urban landscape is cited as detrimental to the overall success of a scheme or neighbourhood. Where the existing urban fabric provides a well-founded structure within which a new mixed-use scheme is developed, there appears to be a greater chance of mixed-use adding value to the urban experience. This is confirmed by research into mixed-use streets where the compatibility of activities and traders was found to be critical in fostering appropriate levels of vitality (as opposed to intense forms of overuse/abuse) throughout the day and evening (Jones *et al.*, 2007).

Delivering street level occupancy has generally proved problematic. Mixed-use development schemes in London completed between 2001 and 2005 had vacancy rates of 34 per cent for office space and 27 per cent for retail space (Giddings and Craine, 2006). In a comparative study of Sheffield, Manchester and London, Evans *et al.* (2009) also found high levels of ground floor commercial vacancy, particularly in areas targeted for mixed-use regeneration. The quality of architectural and urban design can influence the vitality potential of non-residential uses and the degree to which integration with the surrounding urban landscape is achieved (Coupland, 1997).

Mixed-use has also been associated with urban intensification policy. However a national survey of residents living in intensified neighbourhoods found no evidence of the often-cited benefits, including increased neighbourliness and social cohesion. Increases in the disbenefits of intensification such as over-crowding, increased environmental wear and tear and conflicts over parking, traffic

and noise were more likely (Williams, 1999, p. 172). Noise generated by groups of late night drinkers has also been found in intensified areas with a mix of night-time economy and residences (Roberts and Gornostaeva, 2007). Likewise reductions in daily car use linked to intensifying mixed-use urban forms are accompanied by increases in weekend trips to suburban and edge city retail destinations and short- and long-haul air travel (Frank and Pivo, 1994; Holden and Norland, 2005; Saelens *et al.*, 2003).

Most studies of mixed-use (city centre) residents focus on the lifestyles that appear to fuel particular forms of culture-led gentrification (Allen, 2007; Howley, 2009; Smith, 2008). However it is important to stress that many mixed-use schemes and areas accommodate a wider range of ages and income levels than such studies acknowledge. For most ordinary residents of mixed-use schemes and areas it is the everyday services and facilities which are valued most: local shopping, services and amenities including open space, local leisure and entertainment, pubs, cafes and cinemas (ODPM, 2003). Non-gentrifying mixed-use city centre residents cite 'mundane, banal and routine aspects of city life such as the convenience of being close to points of employment and consumption' as the main reasons for living in a mixed environment (Tallon and Bromley, 2004, p. 784). However, families with children are under-represented in mixed-use environments, particularly in city centres. The absence of family accommodation and the paucity of educational provision in many inner and central urban locations raise doubts about the way in which current mixed-use practice delivers on social sustainability (Silverman *et al.*, 2005; Unsworth, 2007) and, more generally, social inclusion (Bramley and Power, 2008; Graham *et al.*, 2009; Camina and Wood, 2009).

Furthermore evidence from the property development industry stresses the practical barriers it faces in undertaking mixed-use development – dilution of ownership, addi-

tional management costs, investor reluctance, complexity of design, poor short-term returns and conflict between commercial viability and policy aspiration for mixed-use sustainable communities (Barnes and Hickey, 2005; Jones Lang LaSalle, 2005). Inadequate practical planning guidance has turned a seemingly benign ideal into a practical minefield (Marsh, 1996; Dixon and Marston, 2003; Evans, 2005).

This growing body of research questions both the assumptions of planning policy and its ability to deliver sustainable mixed-use, at least in the short term. Despite the widespread policy agenda supporting mixed-use there is insufficient evidence to establish conclusively its positive impact of mixed-use on urban vitality, utility use or social cohesion.

### Clerkenwell Case Study

The relationship between urban diversity and vitality is a recurring assumption in mixed-

use policy. However, how land-use diversity encourages urban vitality and therefore enhances the quality of urban life, is poorly understood. The first aim of this study was to investigate the spatial dimensions of mixed-use, diversity and vitality. Clerkenwell, to the north of the City of London,<sup>3</sup> was chosen primarily for its long history of dense (compact) mixed residential and industrial activity and as a site of current processes of economic restructuring and gentrification (Hamnett and Whitelegg, 2007; Hutton, 2008).

Research undertaken for this project by Penn *et al.* (2009) included a building-based land-use survey and the application of Space Syntax<sup>4</sup> to the local urban morphology. Their aim was to identify land-use activity and document the relationship between street patterns and pedestrian movement. Their thesis was that street pattern, to a greater or lesser extent, determines degrees of diversity and therefore vitality. Primary data on uses within each building at ground, first

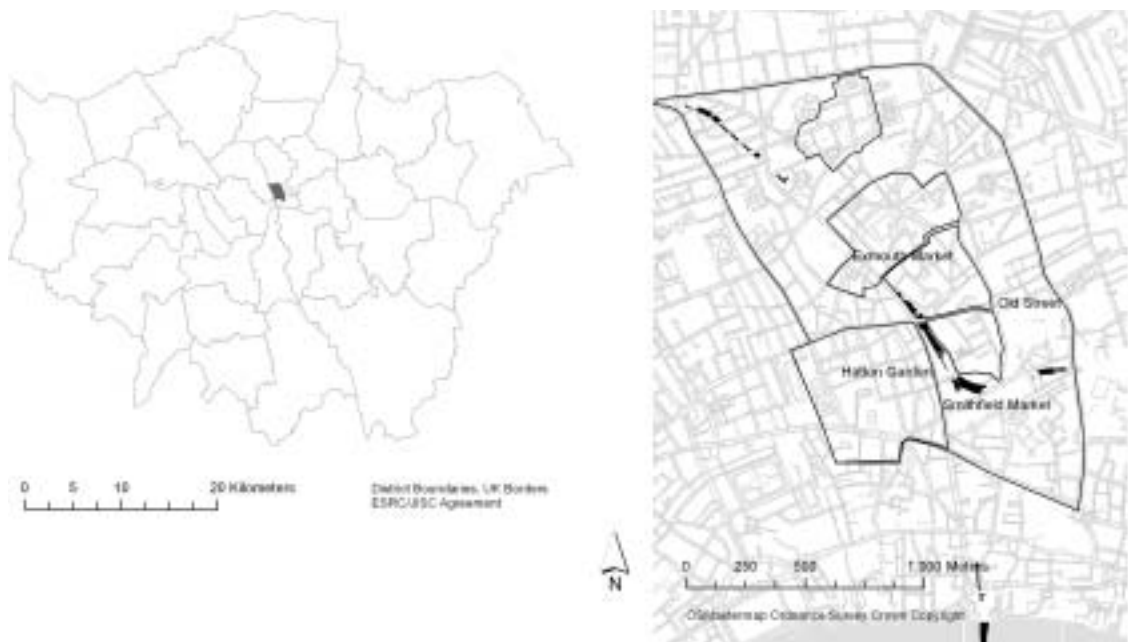


Figure 1. Clerkenwell study area.

and upper floor levels were collected and recorded in a geodatabase.<sup>5</sup> Initial findings, and later 3D visualization, suggested that, although the study area as a whole is very diverse, there are internal variations. Residential activity dominates the mix in the north and commercial activity the mix in the south (figure 1). Furthermore, Penn *et al.*'s pattern analysis found the study area to be a 'relatively unintelligible, heterogeneous area' but with a number of sub-areas 'each of which appears to have grown around specific local centres at the street segment level and which attract the majority of retail, catering and leisure uses' (*Ibid.*, p. 9).

In one sub-area, Exmouth Market, restaurants and bars dominate other uses although there are still large numbers of dwellings and other activities. This lively intense sub-area attracts customers from a wide geographical area, particularly in the evening and has had considerable success in developing new market stalls for food connoisseurs during the day. It is now a local visitor destination. In the Hatton Garden sub-area, a traditional mix of jewellery industry (retail, wholesale and manufacturing) and other services, including sandwich bars and coffee shops located on the ground and first floors is evident. However, large-scale offices dominate both the ground floor frontage and upper floor occupation. The main streets are busy during the daytime but vitality drops after office hours and at the weekend. Spatial domination of offices is also found around in a third sub-area, Clerkenwell Road and Old Street, with a similar impact on vitality. However in the Smithfield sub-area, dominance of the meat market has been challenged by the location of small enterprises, cafes and restaurants, late night bars and clubs, thus increasing street animation and extending vitality throughout the day as well as at night. Vitality outcomes therefore vary with the nature (and spatial configuration) of mixed-use.

The second aim of the case study was to examine the everyday experiences of living and working in mixed-use environments.

## Mixed-Use Living

There are approximately 20,000 people in over 10,000 households living in the Clerkenwell case study area at densities of 116 people per hectare and 55 households per hectare. Although most of the population is relatively young and of working age (38 per cent aged between 20 and 34, and 28 per cent aged between 35 and 54) there are still approximately 3,500 children under the age of 15, and 2,000 over-65s living in this mixed-use neighbourhood. Most residents live in rented flats and fewer than 3,000 households have access to a car. The Mosaic consumer lifestyle classification identifies most households as falling within one of four 'lifestyle types', highlighting the polarized pattern of gentrifying affluence and relative poverty (figure 2).

To assess the experience of living in Clerkenwell, a household questionnaire was administered face-to-face with a sample of eighty residents. Access to residents was managed through contact with local gate-keeping organizations (residents associations; social clubs; play, children's and youth groups; tenants groups; local representatives) and particular effort was made to find 'hard to reach' residents.

Of those respondents in work, the majority (63 per cent) worked outside Clerkenwell with most either walking or using public transport (mostly buses) to reach work. Respondents were rarely able to find work and housing within the same neighbourhood. Many newly-arrived residents (less than one year) reported changing their main mode of transport for their journey to work, using a car less, walking more and increasingly catching the bus. But this positive sustainable behaviour did not derive from Clerkenwell's compact mixed-use form but from its geographical location on the edge of central London.

Respondents were asked which non-work activities they were able to undertake within the neighbourhood and which ones

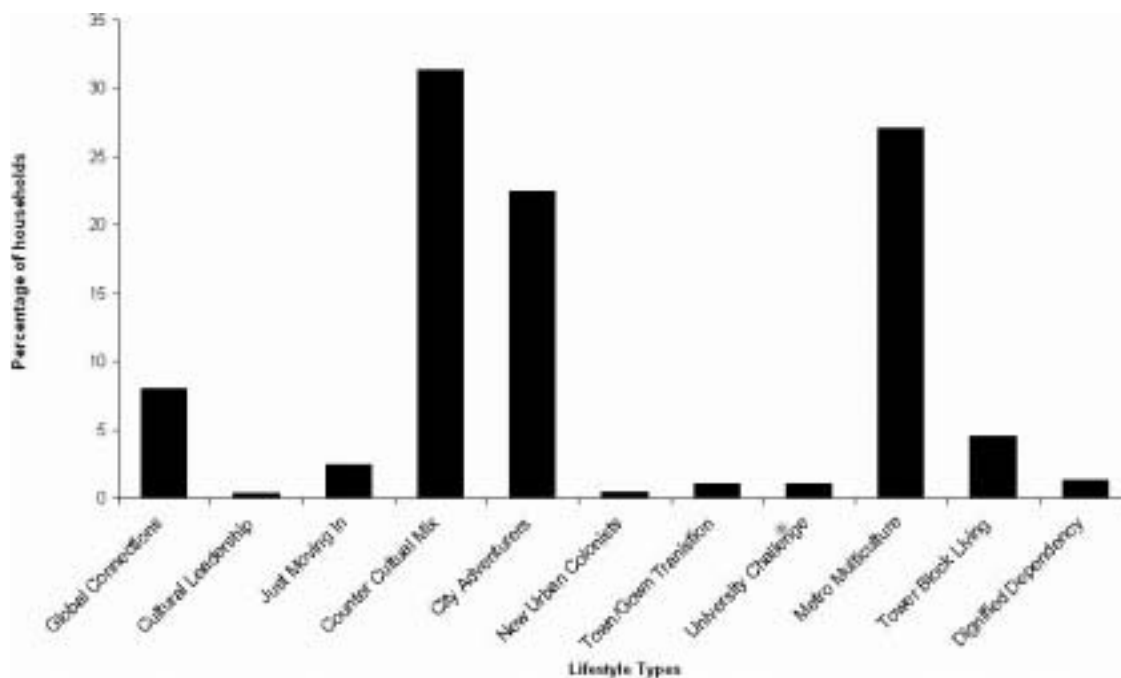


Figure 2. Mosaic lifestyle types.

took them further afield. Most everyday activities could be accomplished within Clerkenwell, including *grocery and household shopping, appointments with health and social services and visits to a park* (figure 3). Many residents made good use of the local *pubs and restaurants* with only *shopping for clothes/shoes and larger household items* predominantly taking them elsewhere. However most of the activities undertaken in Clerkenwell were also undertaken elsewhere in London, including trips for everyday necessities such as *shopping for food and groceries* and using *professional services* such as lawyers, accountants or advice services. Despite a wide variety of local entertainment and eating venues, a significant proportion of respondents reported going elsewhere when choosing a place to socialize with family, friends or work colleagues. This suggests that, while the study area is characterized as a compact mixed-use area, it is also extremely permeable. Not all needs were adequately met within the neighbourhood. For some

residents, this permeability enabled them to take full advantage of Clerkenwell *and* the wide choice of jobs, services, entertainment and goods available in north and central London (and beyond):

Everything is within walking distance. We have 6 tube stations, Kings Cross, Farringdon, Barbican, Moorgate, The Angel, Old St – 6 within walking distance. It takes 15 minutes to walk to Liverpool St, you have all the buses you need, buses that take you anywhere in London, you have Liverpool St, Farringdon takes you to Luton, Brighton, Gatwick Airport, Kings Cross takes you to Heathrow... (Resident)<sup>6</sup>

For others, permeability was forged out of necessity. Inadequate product ranges, poor choices or value for money in local food and other household retail outlets meant they had to leave the neighbourhood to obtain daily necessities. Respondents reported recent changes in the local area, forcing them to go farther afield for basic supplies:

There's Exmouth Market, 25 years ago it was a market, you had food stores and utility stores,

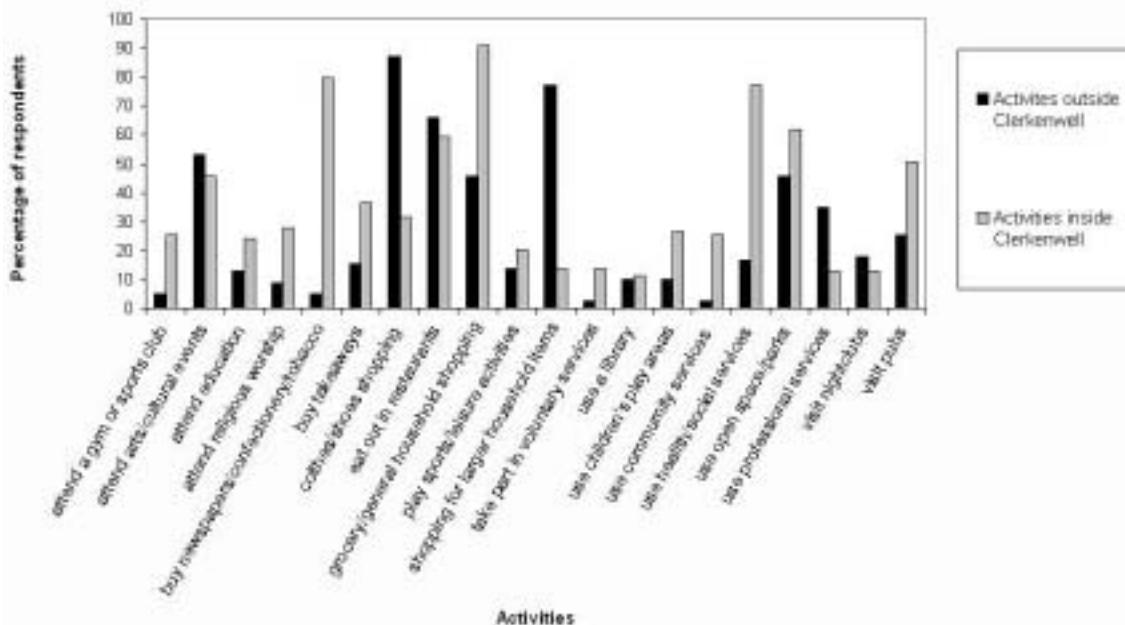


Figure 3. Activities inside and outside Clerkenwell.

somewhere to get your boots sorted or your clothes and there was a Woolworth's at the end of the road... Now you have wine bars and flash restaurants... (Resident)

However, when identifying possible benefits of living in a mixed-use neighbourhood, residents were most likely to say *convenience of shops and services, more people around*, followed by *lively and vibrant atmosphere*. When asked at what time they benefited most from living in a mixed-use area, the highest percentage of respondents selected a benign category *throughout 24 hours*, although significant percentages of respondents identified the categories *during the day, early evening* and *late evening* (figure 4). This suggests that mixed-use provided an animated backdrop to everyday life and convenience when needed.

A quarter of the respondents lived in mixed-use buildings: flats in converted nineteenth-century industrial buildings with offices, shops or restaurants at lower levels or post-2000 new build schemes. For these residents the primary benefits of mixed-

use were slightly different: for this group having *more people around, good non-residential neighbours* and *added security* scored highly suggesting particular benefits relating to their specific building. They were also more likely to experience these benefits during the day, signalling a positive support for everyday activities rather than a 'lifestyle'.

Local disadvantages of living with non-residential activities were more numerous, including several that created a noise nuisance either directly or indirectly (*litter/rubbish, noise/vibration, noise/disturbance from customers/clients, antisocial behaviour, deliveries/loading/unloading*) (figure 5). Respondents were more able to select a specific time of day or night when they were disturbed. Comments included:

I hear the dustmen clanking around quite late at night. Sometimes there are drunk students shouting to each other down the road. It's quite a nice street but it's a thoroughfare... (Resident)

For me the problem is the litter... It stinks. There are two problems with rubbish, there are no bins in most places so they drop things along the

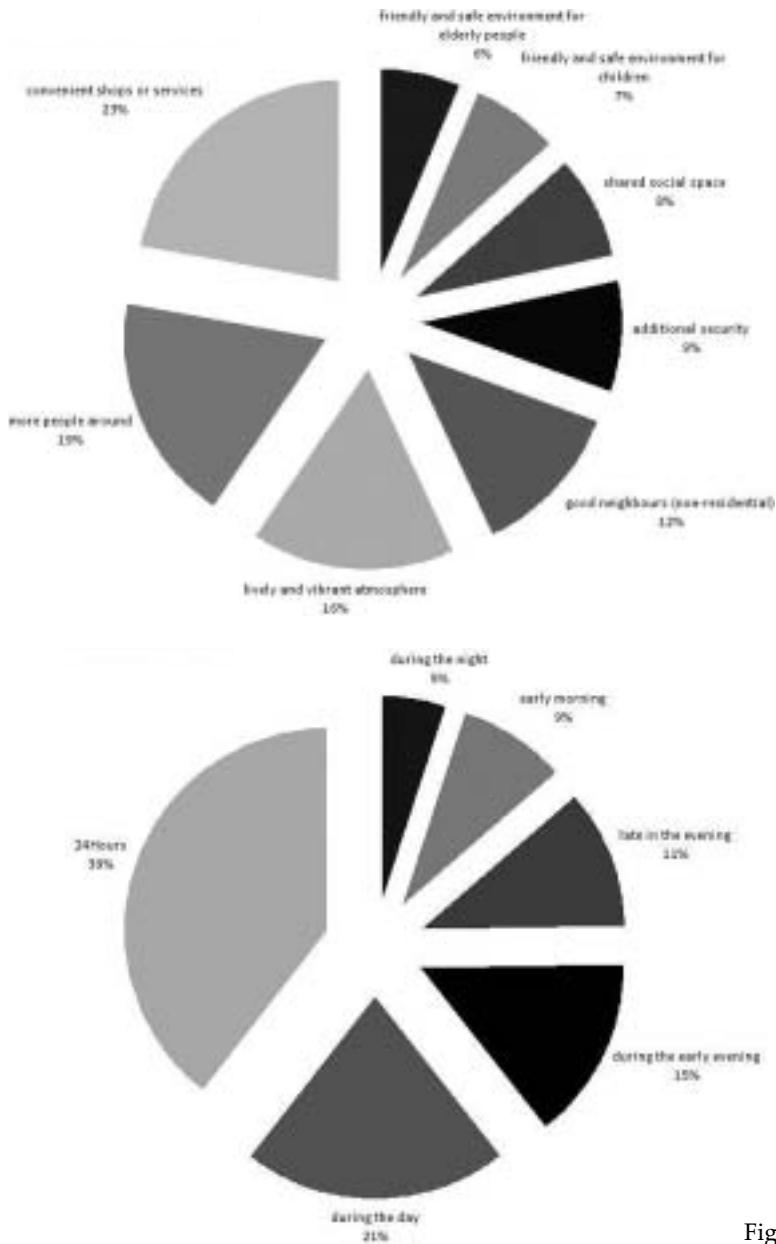


Figure 4. Advantages for residents.

street. The other is the problem on the street. A lot of people put their rubbish out when they feel like it – maybe 3 days before the collection. It’s not pleasant in the summer, especially when the cats get to it. (Resident)

In Exmouth Market they put the rubbish by the trees – you get one rubbish bag – two hours later you’ve got ten. Every tree has a mountain of rubbish bags. (Resident)

For those residents living in mixed-use buildings *litter/rubbish* bothered them most but there was no particular time in the day when problems arose. Management of mixed-use buildings was identified as a particular problem, followed by the interior design, traffic noise and poor quality of their outside space. If noise is the main disadvantage to

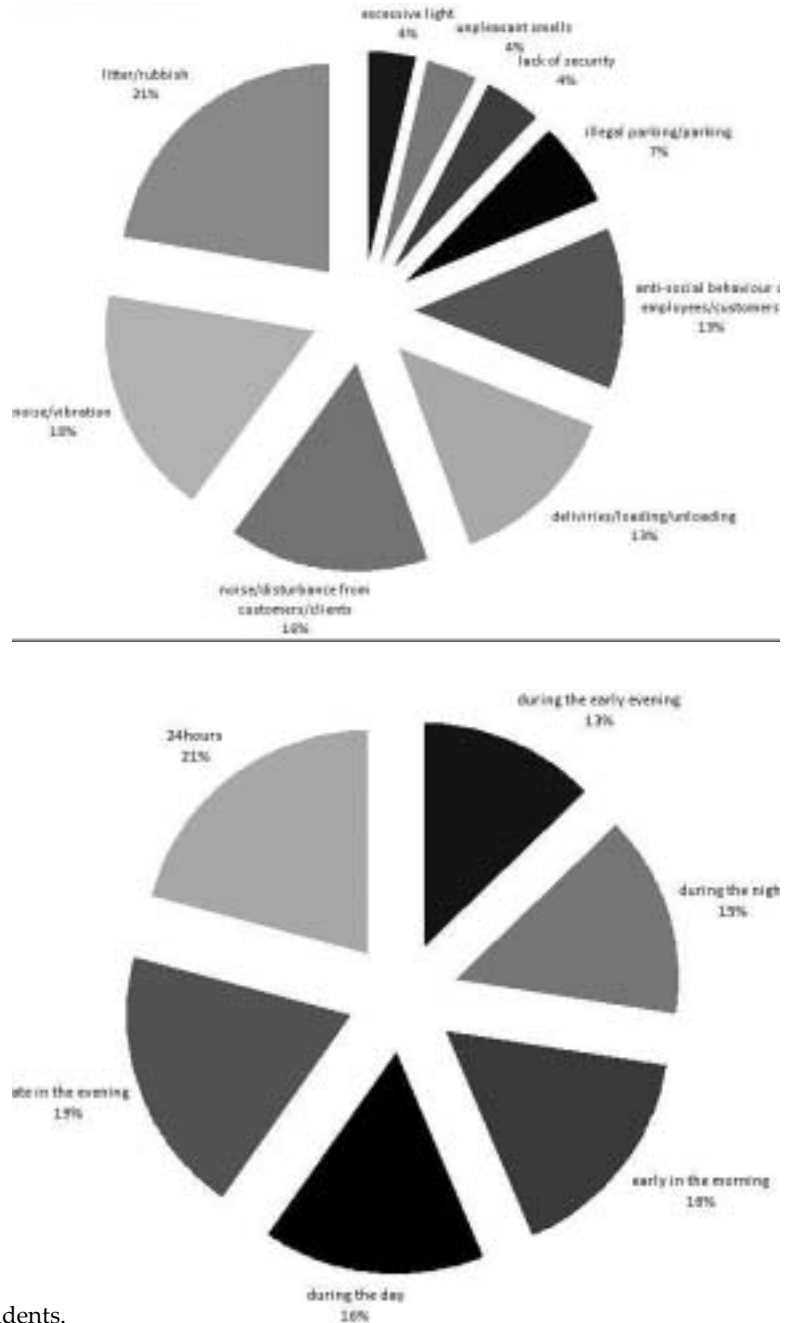


Figure 5. Disadvantages for residents.

living in a mixed-use *area*, poor management and design detract from living in a mixed-use *building*.

A number of attitudinal questions were used to address the overall quality of life

experienced by residents. The majority (72 per cent) felt that their environmental quality of life was fair or good with less than 10 per cent ranking it poor or very poor. About a fifth said their quality of life was excellent.

Those claiming poor or very poor qualities of life were clustered in one particular area of social housing to the southwest of the study area, squeezed between a densely mixed commercial sub-area (Hatton Garden) and a major thoroughfare (Grays Inn Road) and at a distance from community amenities and open space (Spa Green Fields) which are predominantly located to the north and east of the study area. Respondents here were also more likely to say that they did not feel safe and secure in their homes, particularly after dark. Most of these households included children under 12 or someone over 65 and some of the area's most vulnerable social groups. These respondents did not feel much benefit from living in a mixed-use environment: on the contrary they felt isolated from amenities, shops and employment.

Loss of sleep (from external noise) was used as an additional indicator of the quality of urban life. Surprisingly, the majority of respondents did not report disrupted sleep patterns. In most instances the micro-spatial arrangement of buildings minimized extreme instances of noise nuisance. Residents appear to have become accustomed to, though aware of and irritated by, the background noise during the day. However clusters of sleep deprivation scores were observed in sub-areas with intense or growing night time vitality (Ex-mouth Market and north of Smithfield) and concentrated pockets of social housing where, as elsewhere, anti-social behaviour is a problem.

Finally, when asked about the quality of their local community life, a third of respondents declared it poor or very poor and only 6 per cent said it was excellent. Respondents did not tend to know many other local residents yet there were high levels of tolerance of others. There was also recognition that the area is changing and that this has social consequences:

There's a lot of building work going on and refurbishment of old buildings that have been derelict for a long time... More residential – the more expensive end. Quite different from the

communities that have lived in this area and still do in some parts... (Resident)

Living in this mixed-use, mixed-tenure, neighbourhood requires not only a certain urban sensibility but also resources (a job or income) to make it work. Most residents simply tolerated mixed-use rather than actively engaged with it. Residents traded-off the noise, disturbance, rubbish and litter, limited open space, inconvenient parking restrictions and low levels of local community cohesion against the overriding benefit of Clerkenwell's location on the edge of central London and its permeability. But there are groups of residents – families with children, households of elderly residents and vulnerable new migrants – for whom the trade-off was not working and this compact mixed-use neighbourhood, as currently manifested, is unsustainable. For them, proximity to and accessibility of central London is of no benefit and local services are not meeting all their needs. This group is being increasingly excluded from the public spaces of Clerkenwell and the mixed-use environment offers them no protection from social exclusion, indeed it could be suggested that it exacerbates their isolation:

The council wanted to have a mixed area. I don't think I'd like to live in an area where it was all one type of person. They're just over the road in council flats and houses. (But) it's like miles and miles – they never speak to each other across that void. (Resident)

### **Mixed-Use Working**

The study area accommodates nearly 7,000 firms employing 142,000 people, the vast majority of whom commute in every day. To date most research and policy interest has been in how enterprises, particularly those in the 'creative', 'content' or 'knowledge' industries, might cluster around each other or locate close to cultural, entertainment and hospitality firms (and *vice versa*). The assumed benefits of spatial proximity include the minimization of transactions costs; maxi-

mization of face-to-face and business-to-business interaction; acceleration of tacit knowledge transfer between firms; adoption of new fashions, tastes and work practices through the weak ties of employees' social networks; and access to a skilled and motivated workforce. This case study did not set out to test these assumptions. Rather it sought to explore whether or not firms accrued any benefit from locating in an area where there is a mix of residential and commercial activities.

A self-completion postal survey was sent to 513 firms located within the study area, eliciting 104 usable returns. The local economy is dominated by small firms in both the 'new economy' and traditional craft sectors and this was reflected in the sample: up to 40 per cent of the businesses had been in Clerkenwell for less than five years suggesting considerable turnover within the economy. Over 80 per cent shared their building with other users, including shared managed workspace in converted industrial buildings. Most shared with other

commercial or industrial premises – offices, shops, cafes or workshops – creating mixed work environments. Only a handful of business respondents shared premises with residential properties.

A few firms (26 per cent) employed staff who lived locally, however the majority (82 per cent) said they used local suppliers for some of their office supplies and related services including graphic design, art work, hospitality, photography and printing. Many of the craft firms in jewellery still sourced materials and specialist processing within the neighbourhood while wholesale and delivery companies used local garages and mechanics. Most businesses claimed that their markets were not local, citing London-wide, national and/or international reach for their products and services. The volume of commercial transactions (employees, information, products and services) flowing in and out of the neighbourhood highlights the permeability of the local economy.

*Affordability* and *connectivity* were the prime location factors chosen by the highest per-

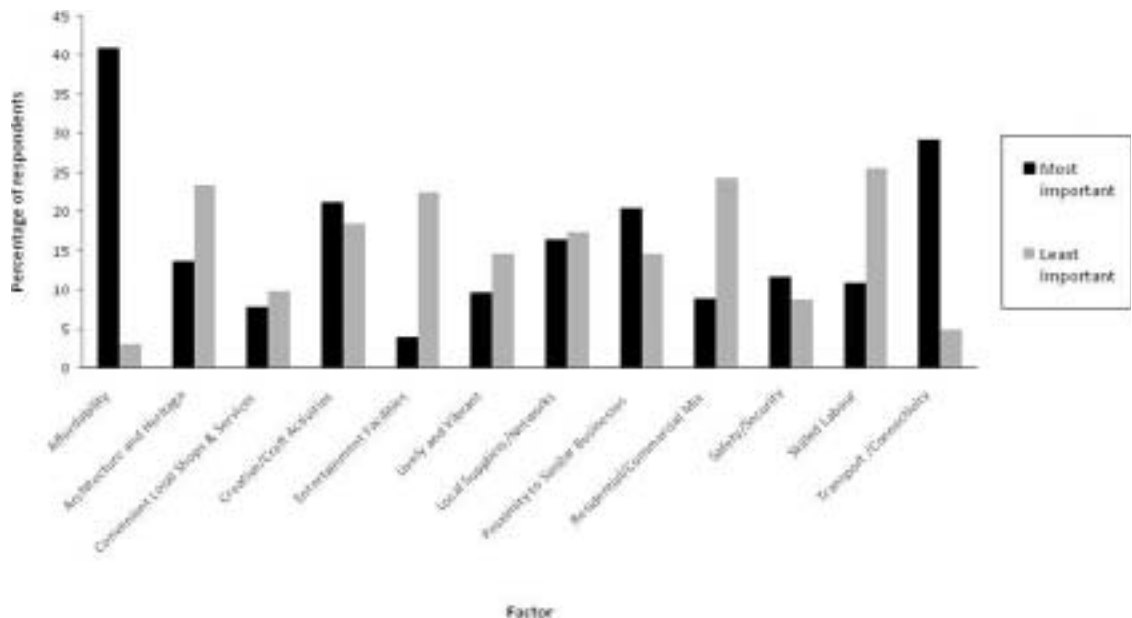


Figure 6. Business location factors.

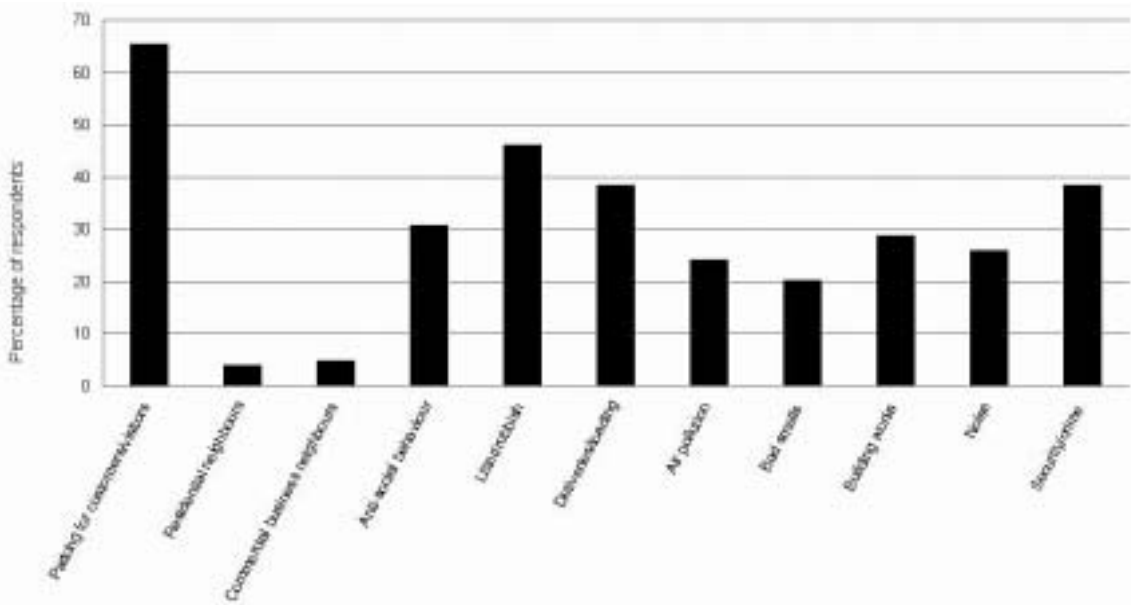


Figure 7. Problems experienced by businesses.

centage of business respondents (figure 6). *Proximity to similar businesses, local suppliers and craft/creative industries* were also identified as prime location factors by around a fifth of respondents. *Skilled labour, the residential/commercial mix, entertainment facilities* and *architecture/heritage* were most frequently selected as the *least* important location factors. The local *vibrant atmosphere* was acknowledged but not uppermost in most firms' location decision-making. Yet it is this attribute that is often cited in policy documents as the key to attracting new economy firms and 'creative workers'. These results suggest that Clerkenwell has attracted and retained businesses for more prosaic business reasons: keeping costs down and being in an accessible location.

Employees did use some of the local services, especially the shops, banks, pubs and restaurants. However, relatively few workers joined the library, used the park, health services, nightclubs or gyms. In general then the density and diversity of businesses in the neighbourhood provided customers for

local services but there was little evidence of the employees or their firms fully engaging with the mixed environment (or its other tenants and residents) by participating in non-work or community activities within the neighbourhood.

The business respondents identified a number of disadvantages, associated with dense mixed-use, in particular *parking for customers/visitors, litter/rubbish, problems for deliveries/loading* and *security and crime*. In addition the constant *building work* and *noise* were considered secondary problems disrupting daytime work and meetings. The aftermath of *anti-social behaviour* was also seen as an irritation, particularly petty vandalism or fouling of entrances to business premises (figure 7).

Notwithstanding these disadvantages businesses indicated an extremely high level of satisfaction with their location choice: over 90 per cent stated that they were either fairly or very satisfied with their current premises. Firms traded-off poor parking and problems over loading and unloading against the rela-

tive affordability of premises in a well connected, London location. Geography was their primary local advantage. Business respondents did not value Clerkenwell as a mixed residential-commercial neighbourhood. Indeed the presence of a residential population was of little business interest and local people remained largely invisible.

Yet despite high levels of place satisfaction, a third of the business respondents said they would be leaving within the next three years. Rising costs (including rents, business rates) and the renegotiation of leases were cited as the primary causes. Affordability seems to have been undermined.<sup>7</sup> For many a threshold had been reached whereby the benefits of accessibility and connectivity could no longer outweigh the increasing costs of premises:

The whole way the area has changed has impacted on the value of property in this area. For organizations like us at rent review time, we are faced with an unreal situation in that the values that are applied to a building like this are out of line with what we should be paying. Our last rent review with Islington was in 2002 – Islington opened the negotiations with a 100 per cent increase in our lease rent. They claimed that was the market rent. (Business)

To date Clerkenwell has provided a flexible and relatively inexpensive (compared to central London) business location in which the trade-offs between locational advantages and everyday disadvantages have been easily made. However recent pressure from intense residential and office development, including mixed-use schemes, has hastened the redevelopment of multiple occupancy workshops and industrial spaces with the loss of many cheaper industrial and office premises:

The reason the area has become attractive and sought after is because of all the historic things. Businesses that have been here a long time – all the crafts – their history goes back a long way – that historic link has been part of the attraction of the area but it has backfired on itself. We are now all under threat. We could end up with an area full of amazing apartments. The reason

those apartments have been developed will be gone. (Business)

## Conclusion

Mixed-use policy emerged from a complex agenda to reclaim underused or underdeveloped urban spaces. Although mostly justified in terms of environmental sustainability, mixed-use policy rolls together aspirations for new forms of market investment in inner cities with ambitions for social change. Mixed-use is not a modest planning initiative, as suggested by Breheny. Its muddled and idealistic objectives have deflected attention away from the everyday outcomes of its practice.

Research on existing forms of mixed-use, including this Clerkenwell case study, suggests that the range and mix of non-residential activities required to fully support communities, including families with children and older people, is rarely established. Current developments tend to encourage a new transient population for whom compact mixed-use urban living is a temporary lifestyle choice. For existing communities, or socially excluded communities, as found in Clerkenwell, the benefits of living in mixed-use locations orientated towards high consumption lifestyles are negligible. The nature and spatial form of mixed-use is rapidly eroding necessary everyday services and utilities.

Many living in Clerkenwell's mixed-use, mixed-tenure, neighbourhood require a certain urban sensibility in which the advantages are traded-off against disadvantages and in which a high level of forbearance with the behaviour of others and the uncertainty of street life are necessary pre-requisites. Most residents tolerate, rather than enjoy the mixed-use environment, trading-off the noise, disturbance, rubbish and litter, limited open space, inconvenient parking restrictions and low levels of local community cohesion for the overriding benefit of Clerkenwell's location and permeability. Yet this is a fine

balance. When change in the spatial dominance of a land use within an area alters the level of vitality, as in areas of night-time activity or day-time office activity, this trade-off becomes unsustainable and the 'cost' is borne by the residents. Likewise, while the ability to travel out of Clerkenwell makes it possible for most residents to live in this dense mixed-use environment, many who are unable to travel find themselves trapped in an area with limited resources and potentially a declining quality of life. Furthermore, high tolerance of others is only possible where households have significant economic and social resources. In the absence of such resources, Clerkenwell is not mixed enough. It is unable to support the everyday needs of those at risk of social exclusion. Shared understandings of daily practices such as when and where to put out the rubbish are harder to establish when social cohesion is low.

In contrast, the permeability of Clerkenwell is central to its economic success. Although most businesses acknowledge the street animation – the cafes, restaurants and vibrancy of the creative buzz – it is of little direct importance. Neither is the presence of a local residential population. Use of local suppliers is largely limited to immediate service needs and markets are regional and international. For businesses, the London location and connectivity matter more than the mixed-use environment.

It is evident that the dynamic processes that generate diversity and mixed-use neighbourhoods, including their openness, can also destabilize them. In these circumstances the trade-offs made by residents become untenable and businesses relocate. Understanding this process and the point at which a mixed-use neighbourhood changes from offering the potential for sustainability to undermining it, requires further research. Research which is needed with a degree of urgency, given the continued blind advocacy of mixed-use and compact urban development.

## NOTES

1. Evolution and Generation of Land Use Diversity Workpackage 2: Vivacity 2020: Urban Sustainability and the 24 Hour City (<http://www.vivacity2020.eu>) funded by the EPSRC, Award number GR/s18380/01&2 2003-2008).
2. Congrès Internationaux d'Architecture Moderne.
3. The research project *Vivacity 2020* selected three UK cities – London, Sheffield and Manchester. Central city case study sites, including Clerkenwell, were adopted by most contributing research projects (Cooper *et al.*, 2009).
4. <http://www.spacesyntax.com/>.
5. The land-use survey was undertaken and geocoded by Irini Perdikogianni, Bartlett School of Graduate Studies, UCL.
6. All quotations cited in the rest of the paper are from interviews with residents or businesses conducted by Rosita Aiesha, Cities Institute.
7. Although this research was undertaken immediately prior to the current economic crisis rents may well have dropped or stabilized since.

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