



Do perceptions of neighbourhood change match objective reality?

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ABSTRACT

This study analyses neighbourhood change, its impact on the character of Soho, and to what extent perceptions of change match objective reality. Focusing on three streets (Berwick, Old Compton and Wardour Streets), the research (2008–2018) compares objective evidence of ground floor uses with the perceptions of people living and working in Soho. There was a close match between perceptions and objective measures of change on 4 out of 7 indicators: type of use, business name, locality and business ethnicity. The paper discusses these changes in terms of commercial gentrification that threatens Soho's character.

Introduction

People's perceptions and their subjective assessment of neighbourhood change influence their satisfaction level and their decision to relocate, i.e., residential mobility. Different factors affect their perceptions, including physical factors, cultural factors, socio-demographic background, education level (Fisher-Gewirtzman 2018; Permentier, Bolt, and Van Ham 2011). Perceptions may or may not closely reflect objective reality. There is some research into the gap between subjective perception and objective reality in other disciplines, but very little in urban design literature. It is unclear to what extent perceptions and attitudes towards neighbourhood change reflect what is happening objectively (Bashir and Flint 2010). There is also a gap in the literature in terms of measuring and mapping the change (Atkinson 2000; Lupton and Power 2004; Barton 2016; Holm and Schulz 2018).

The aim of this research was to measure change objectively and compare this to people's perceptions. The study focuses on three streets in Soho: Berwick, Old Compton and Wardour Streets (Figure 1). The reasons for this choice are discussed in the method section. The paper also aims to contribute to the literature on commercial gentrification and to contextualize the findings in terms of their effect on Soho's character and identity.

Character and identity are complex, in that they are the product of a combination of different factors. There is a contradiction, however, between residents' perceptions of neighbourhood character and that of other actors, such as stakeholders, developers, architects, and local government planners (Dovey, Woodcock, and Wood 2009). Character may be defined in terms of features that distinguish a place (Davison and



Figure 1. Berwick, Old Compton and Wardour Streets, 2010.

Rowden 2012), but the definition of character in planning policies is often quite arbitrary (Tewari and Beynon 2018). Since the 1990s, character and sense of place have had a growing importance in UK conservation planning, but residents are rarely involved in forming and implementing conservation policies (Jive´ n and Larkham 2003). This means that residents’ views about what constitutes character, and is, therefore, worth protecting may be quite different from that of developers or local planners.

The research method involved in this study devises a set of indicators (explained in detail in the method section) that can be measured over time, and that corresponded to the factors people find meaningful, and that they refer to when discussing the change in their neighbourhood. The main question that the case study addresses is to what extent the changes measured and mapped using photographic evidence of ground floor uses in Soho mirror the perceptions of people living and working there.

Changing Soho

Soho is located in Central London, in the West End, and is one of its most well-known creative, multi-cultural, mixed use neighbourhoods (Figure 2). It is associated with the seedy, quirky side of London, with its sex-establishments, entertainment venues and adult-spaces. Its historic character dates back to seventeenth century, since when it has accommodated immigrants, exiles, creatives, authors and intellectuals from all around the world. As most places, it has gone through many changes, and the seeds of the change date back to 1980s, when the initial cycles of gentrification are considered to have started.

There has been much debate in the press, and amongst those living and working in Soho, about how the area is changing (Table 1) and whether it is losing its soul and character (Venturi 2018). Among the recent much-debated changes in Soho are the displacement of marginal uses, and the sanitization efforts of Westminster City Council (WCC), the dominance of private estates in the redevelopment, increasing rents, increasing number of holiday lettings and expensive hotels, a loss of local characteristic and identity, and increasing construction and redevelopment, and increasing noise and congestion.

As Sanders-McDonagh, Peyrefitte, and Ryalls (2016) argue, the cleanup project initiated by WCC in 1980 changed Soho, as many sex-related establishments were closed, resulting in fewer less adult and gay venues. Clip joints and strip clubs were closed down (Herrema 2018) including the iconic Madam Jojo’s in 2014 (Ellis-Petersen 2014), and a new type of luxurious entertainment venue was opened on the site (Sanders-McDonagh, Peyrefitte,

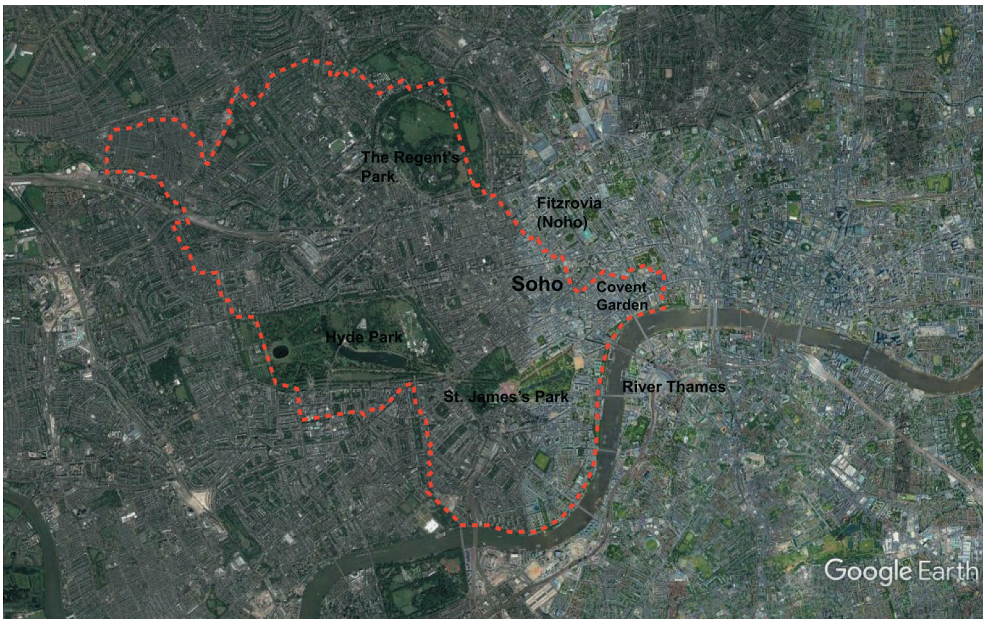


Figure 2. Map of central London showing the location of Soho within Westminster. Source: Google Earth Pro (2020).

Table 1. Timeline of Soho gentrification as portrayed in media (sample of numerous headlines).

Year	Headline	Media
2010	The revolution that killed Shoe's record shops	Independent, 12 May
2012	So long, Soho: Starbucks and Stradas are taking over	Independent, 21 Apr
2014	A gentrified Soho is terrible news for London	Telegraph, 7 Apr
2015	Stephen Fry plans Soho wedding in fight against area's gentrification	EveningStandard, 13 Jan
2016	Fresh gentrification row in Soho over Berwick Street market future	EveningStandard, 9 May
2017	Soho: on the front line of London gentrification, but would you live there?	The Times, 21 May
2018	Soho is losing its soul, says club founder forced out by developers	EveningStandard, 23 Jul
2019	Nick Curtis: Have a pint and help save an iconic slice of old Soho	EveningStandard, 12 Feb

and Ryalls 2016). As well as this displacement of marginal uses, hotels and luxury apartments are displacing offices, shops and affordable housing. For example, Film House, which currently accommodates the offices of the pioneers of the post-production on Wardour Street, is to be redeveloped as a 174-room hotel with restaurants and bars on the ground floor. Another example is the redevelopment of the 90–104 Podium building, located below the council-owned Kemp House, Berwick Street, as a mixed use with hotels, shops and flats. This development is opposed by local residents, market traders and retailers, Soho-based stakeholders and The Soho Society.

Increasing tourism has meant a dramatic increase in online letting platforms, and there are now more than 300 Airbnb sites advertised in Soho. Berwick Street Market, which has been active for nearly 200 years, with stalls selling a variety of products from household goods to flowers, fruit and vegetables, has been threatened by the council's privatization plan involving a commercial operator, which has alarmed stallholders, who may no longer be able to afford the rents (Rustin 2016).

Crossrail, with two entrances near Soho, will bring changes to the public realm that will further increase the area's attractiveness as a tourist destination. Crossrail was also responsible for the demolition of the historic Astoria Theatre in 2009 (Gibson 2009). The Soho Curzon, the only independent cinema in the West End, is under threat from Crossrail 2.

Along with these changes, rents and property prices increased by over 50% between 2012–2017 (Hammond 2017). In part, the new technology giants moving into what is being called 'Silicon London' are driving these changes; Facebook Headquarters moved to Fitzrovia in 2017, Snapchat and Twitter have offices in Soho, Instagram, in Covent Garden, and Google is expanding its offices in King's Cross (Hammond 2017).

Westminster City Council's plans and projects for Soho

The council aims to preserve Soho's unique character and identity (WCC 2019). The reports refer to several different features when referring to Soho's character and identity, such as specialist clusters, small independent shops, exuberant nightlife, cosmopolitan character, iconic shopping and leisure, creative arts, a focal point of London's music scene, home to London's LGBTQI+ community, a major tourist attraction, and a vibrant mix of residential and commercial uses. Westminster planning applications are guided by The Westminster City Plan (2016), the Unitary Development Plan, and London Plan guide. The 2019–2040 local plan proposes a new Soho Special Policy area that recognizes its unique scale, mixed use and special character as a place to live, work and visit, and aims to protect the area from new development threatening this 'special nature' (WCC 2019).

Attitudes to changes in Soho

The debates in the local and the national media, including the Guardian, Times, and Telegraph, are mainly critical of the changes. In fact, many of the headlines highlight the gentrification of Soho as shown in Table 1.

In 2016 and 2017, The Soho Neighbourhood Forum (SNF), as part of producing a Local Plan (Government UK 2014), conducted a survey with over 1500 people, aiming to understand what matters to people in Soho. Respondents were asked to rate the importance of issues to them on a scale from 1 to 10. The top priority was heritage & culture, followed by the size and scale of development, recycling and creative industries (PlanforSoho 2017). Other issues of importance included use changes, entertainment venues, housing supply, public spaces, evening & night-time economy and general amenity. The results, published on the PlanforSoho (2017) webpage, were used in the formulation of the indicators of this research.

The SNF also conducted a public forum and a workshop to discuss the draft neighbourhood plan (Figure 3). People's main fears are about the changing character of Soho as a congenial neighbourhood to live and work. Their key concerns are chain stores displacing independent shops, traffic, noise, late licences, fast-food outlets, outside drinking, pavement clutter, cycling on pavements, building construction and Crossrail 2. What they cherish most is the area's diversity, tolerance, creative and village atmosphere, human scale development, nightlife, gay scene, and a mix of local people and community enterprise. This background to people's concerns over recent changes emphasizes the importance of objectively documenting the change.



Figure 3. What matters to Soho? Soho Neighbourhood Forum, 2015.

Neighbourhood change and gentrification

In the literature, neighbourhood change is associated with gentrification (Zukin 2008; Franz 2011; Ferm 2016; Gainza 2017). Barton (2016) suggests that a key issue in gentrification is how to measure neighbourhood change, and this became a key aim in the research reported here.

The term ‘gentrification’, first used in 1964 by Ruth Glass to describe the change in inner London (Glass 1964), has been a subject of academic debate ever since (Smith 1996). Gentrification is a multifaceted process that generates changes in the built environment, in social relations, and in commercial activities and consumption patterns (Zukin 2009; Franz 2011). Zuk et al. (2018) define gentrification as neighbourhood change involving the racial and economic transformation of low-income neighbourhoods, and Loukaitou-Sideris, Gonzalez, and Ong (2017) suggest that gentrification should be considered a particular form of neighbourhood change. Barton (2016) suggests that this concept has distinct, economic and social dimensions. The former is seen in an increase in rental values, and the second in changes in the character, local culture and soul of a neighbourhood through changes in the demographic structure. As described earlier, both types are seen in Soho.

The first wave of gentrification typically results in renovated facades and changes to the spatial and social character of local shopping streets. Increases in rent, different consumption habits and changes in land uses lead to the second wave of gentrification, a wholesale change in socio-demographic structure, and in new facilities for this new ‘class’ of people (Gainza 2017, 964). While residential gentrification typically studies neighbourhood socio-demographical change, commercial gentrification traces different changes in use and facades (Franz 2011). In the case of Soho, chains are taking over from local shops, and global hegemonic companies are directing its future development; neighbourhood change in Soho is an example of commercial gentrification driven by capital investment.

The idea that gentrification is driven by a rent gap between land values and rent that results in capital flows was advanced by Smith (1979) and, commercial gentrification in Soho is being led by powerful land-owners and developers. There is often little benefit for existing residents whilst developers, landlords and agents all enjoy substantial financial gains (Hamnett and Williams 1980).

Zukin, Kasinitz, and Chen (2016) argue that the recent changes witnessed in most cities are related to two factors – globalization and gentrification. They identify three processes: the spread of chain stores, gentrification by hipsters, and super-diversity created by immigrants. These trends are reflected in the choice of indicators. Neighbourhoods like Soho attract tourists, with negative as well as positive impacts on local residents and businesses, and there are increasing concerns over ‘tourism gentrification’ (Cocola-Grant 2018) and holiday lettings on neighbourhoods (Ioannides, Röslmaier, and van der Zee 2018).

Research methods

People’s impressions of and feelings about change are important, but these may be subject to change over time. People are sensitive to, and in general, opposed to change. As Bashir and Flint (2010) argue, many different factors are at play in residents’ perception of neighbourhood change, making it methodologically difficult to use people’s perceptions as the sole way of measuring change. Similarly, Loukaitou-Sideris, Gonzalez, and Ong (2017) argued that it is important not to rely on a single indicator, or on people’s perception of change, but to triangulate interviews and surveys with more objective measures.

This case study of Soho defines the plot, or individual postal address, as the unit of measurement (Moudon 1997). To build an analytical framework, it uses both objective measurements of change, through photographic evidence, and also perceptions of change, through online survey and ethnographic observation. Various studies support this approach of using a mix of data (Wilson 1987; Gainza 2017; Loukaitou-Sideris, Gonzalez, and Ong 2017; Collins 2018; Sezer 2018).

Selection of the streets

The whole of Soho was surveyed for this study, and for the purpose of this paper; three streets were chosen to reflect its main distinctive characteristics. Berwick Street is a local high street with its long-standing street market, and its characteristic older, smaller-scale buildings. Old Compton Street is a high street of independents and chains, old and new businesses, and many cafes and restaurants, catering for a wide variety of tastes, nationalities and customer types. Wardour Street connects north and south Soho, and mainly accommodates film and media companies. Plots and buildings on Wardour Street are the largest (Figure 4). All three streets have commercial uses and offices on the ground floors and mostly residential uses on the upper floors, but with some offices. For a few addresses, ground floors are used as the entrance and reception spaces for businesses on the upper floors. Berwick Street has 91 ground floor premises, Old Compton Street has 62, and Wardour Street has 81.

Choice of indicators

The indicators were chosen based on the changes Soho is experiencing and on local people’s concerns and perceptions. Loukaitou-Sideris, Gonzalez, and Ong (2017) highlighted the difficulties of obtaining objective data about urban change, and a secondary consideration was the practicality of data collection. Observable changes in the ground floor street frontages provide a simple, transparent, replicable and feasible data collection

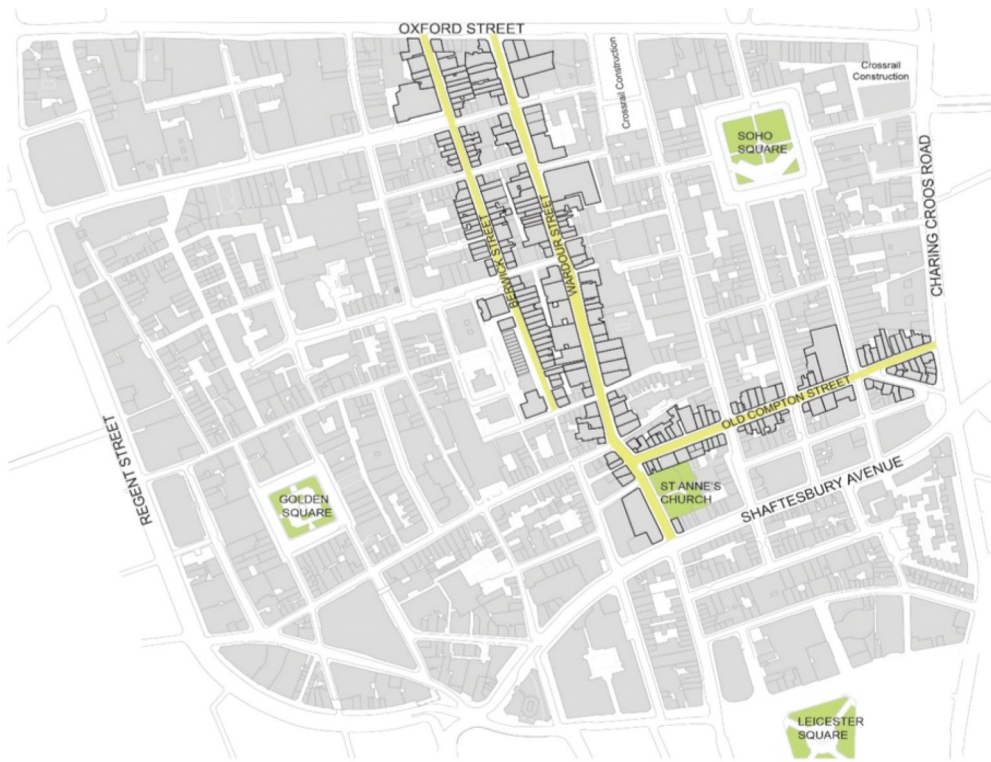


Figure 4. Soho map and selected Soho streets. (Source of Base Map: © Crown Copyright/database right 2011. An Ordnance Survey/EDINA supplied service. Source: Edina Digimap Service 2011.)

method. They are also highly relevant to people's perception of change, and may even be the most prominent indicator of changes in the local character, and in the range of neighbourhood amenities and activities. Table 2 defines the chosen indicators, their effect on neighbourhood character and gentrification, and indicates citations of their use in the literature. The change of locality and type of use is mapped as shown in the figures.

Photographic evidence

The study uses photographs of ground floor activities to measure visible changes. Photographs of all buildings in Soho were taken in 2010 as part of one author's Ph.D. research (Durmaz 2012). The photographic survey was repeated in 2016, and supplemented by Google Street View images for 2008, 2012 and 2014, to create a detailed record of ground floor activity at 2-yearly intervals between 2008 and 2016.

A search of business websites provided information for other indicators, such as locality (independent/chain store), information on ethnic character, and opening hours. Observations, Google map analysis and measurements on AutoCAD drawings revealed changes in the scale and sub-division of ground floor use. An Excel database was created to code and analyse the data.

Table 2. Indicators used to measure neighbourhood change.

Indicator	Definition	Effect on character	References
Business name	Business signage	Indication of retail dynamics and commercial character of the street	Gainza (2017), Treu (2012)
Type of use	Residential, business and tourist uses	Contributes to urbanity, vitality, diversity and public realm	Montgomery (1998), Carmona et al. (2003), Sheppard (2015)
Locality	Independent v chain shops and businesses	Change of local character, identity and distinctiveness	Erickson and Roberts (1997), Zukin, Kasinitz, and Chen (2016), and Barton (2016)
Opening hours	Especially extended hours after 5.30 pm. 24 hour city	Defines activity patterns, user characteristics, pedestrian movement and vehicle traffic. Can cause conflict, congestion, noise	Heath (1997), Tiesdell and Slater (2006)
Ethnic character	Ethnic character associated with the food/drink, goods served or services provided.	Social diversity, street character. Upscaling to trendy restaurants and cafes	Hall (2015), Zukin, Kasinitz, and Chen (2016), Collins (2018)
Pavement use	Extension of shops and food and drink outlets on to the pavement (sitting or standing)	Spaces for people-watching, places to eat and drink. Encourages people to 'hang out' and facilitates social interaction and chance encounters	Ehrenfeucht and Loukaitou-Sideris (2010), Montgomery (1997), Oosterman (1992),
Scale	Change in plot scale, urban form and pattern Change in building size. Business merging or dividing	Historic buildings being redeveloped, amalgamated, change of plot size and building height.	Moudon (1997), Montgomery (1998)

Online survey

In the summer of 2018, an online survey to measure residents and business people's perception of change was circulated among Soho Society and Soho Neighbourhood Forum members and shared via Twitter and Facebook amongst local networks. In total, 50 responses were collected. Most respondents (88%) live or work in Soho. This is important in terms of their attachment; as Andersen (2008) argues long-term residents and businesses usually have stronger place attachment and social ties than short-term residents and visitors. Eighty-four percent of the respondents had connections to Soho for at least 10 years, and some had lived in the area for more than 30 years.

Ethnographic observation

The research involved visiting Soho from 2010, and living there since 2017, providing many opportunities to participate in the neighbourhood forums and workshops, and to talk with many locals and observe life on the streets. A clear understanding of concerns about the change in Soho emerged from participation in Soho Neighbourhood Forum (SNF), and in workshops with its members, and in particular, the Neighbourhood Forum, organized in July 2015 by SNF (Figure 3). In September 2016, the initial results of this research were presented to SNF members in a workshop, and understanding gained there was further increased by the feedback and subsequent meetings and email exchanges.

Data coding

A change in any of the 7 indicators is coded '1'; no change is coded as '0'. The total change for in each street was calculated by summing the changes for all properties for all 7 indicators, and dividing by the total number of properties. For example, a change from an Italian to a Thai restaurant would score 2, for change of name, and ethnic character. The indicators are weighted equally, since there is no evidence in the literature or relevant data to support differential weighting.

Results

Table 3 shows the pattern of change over the three streets from 2008–2016. Between 2008–2016, there was at least one change in 70% of the businesses in Berwick Street, 60% in Old Compton Street and 49% in Wardour Street. There has been an increase in chain stores at the expense of independent shops, an increase in vacant, closed and under construction sites at the expense of shops and household/local services. Significant changes, that residents and local people feel to be detrimental to the area's character, are highlighted in Table 3.

In Berwick Street, the number of shops decreased, and the number of premises under construction increased. The redevelopment of the Podium Building resulted in the closure of 12 ground floor premises, mostly independent shops, including a hairdresser, a gift shop, a supermarket, a betting-gambling shop, a hardware shop, a textile shop, and two record shops. The ongoing construction works that started in 2016 raised much public concern due to the noise, dust and construction-related problems, as well as the threat to the unique character, scale, and style of the street.

In Old Compton Street, shops, household services and adult uses decreased, whilst the number of eating & drinking venues and vacant properties increased. In Wardour Street,

Table 3. Change in the ground floors (2008–2016).

Change in:	Berwick	Old Compton	Wardour	Total	
Type of Use	Restaurant/Cafe/Bar/Pub	5%	21%	11%	13%
	Offices/Studio/Creative Ind.	0%	0%	–18%	–14%
	Shops	–33%	–20%	–7%	–25%
	Household/Local Services	0%	–50%	0%	–6%
	Beauty/Lifestyle/Hairdresser	200%	None	–50%	57%
	Theatre/Art Gallery	None	0%	100%	50%
	Adult	None	–80%	0%	–67%
	Vacant/Closed	–12.5%	300%	100%	38%
	Under Construction	225%	–50%	None	88%
	Locality	Chain-UK-based	67%	36%	12%
Chain-Worldwide Locations		–17%	40%	67%	35%
Independent		–15%	–22%	–31%	–21%
Opening Hours	Extended opening hours	42%	67%	30%	44%
	Daytime opening	–49%	0%	–15%	–35%
Ethnic Character	American	200%	100%	300%	300%
	Far East Asia	100%	100%	–17%	36%
	European and British	–40%	17%	–13%	11%
	Indian	–66.7%	–100.0%	0%	–60%
	Mediterranean	800%	–7%	75%	53%
Pavement Use	South American	–100%	100%	–40%	33%
	Outdoor Drinking	–33%	0%	0%	–9%
	Pavement Cafes	43%	–14%	–25%	0%

the greatest decrease was in the number of office/studios and beauty/lifestyle uses, while here also, the number of eating and drinking venues increased (Table 3).

Type of use

In all three streets, the percentage of restaurants, cafes, and bars has increased at the expense of offices and shops, adult shops and gay-related uses. Proportionally, premises under construction increased the most (88%), and the number of inactive business also increased (38%), clear indications of neighbourhood change. Beauty/lifestyle/hairdresser uses increased by 57%, and eating and drinking venues by 13%, whilst the percentage of shops and creative uses decreased by 25% and 14%, respectively. Twenty-five percent of film companies moved from Soho, mainly to East London and to 'Noho', located to the north of Oxford Street, due mainly to lower rents and better quality buildings with more office space.

The change in the type of use between 2008–2016 is mapped in Figure 5. The map shows clearly that Berwick Street experienced most change, and that areas of major change in Wardour Street and Old Compton are largely confined to their intersection at St Anne's Church. Smaller-scaled plots were more likely to have changed than the larger ones.

Locality – independents to chains

The number of independent business fell in all three streets. In 2008 there were 112 independent businesses, in 2016 only 88, a fall of 21%. The decreases ranged from 31% in Wardour Street, 22% in Old Compton Street and 15% in Berwick Street. The number of international chain businesses increased more than UK-based chain businesses, 35% and 29%, respectively.

The change of locality is mapped in Figure 6. It is clear that Berwick Street has changed the most in terms of locality, and smaller-scale plots have changed more than the larger ones. However, there is also a change in the locality at the eastern end of Old Compton St, where it meets Charing Cross Road (Compare Figures 5 and 6).

Opening hours

The proportion of premises with extended opening hours after 5.30 pm increased by 44% between 2008 and 2016. The greatest increase was in Old Compton street (67%), followed with Berwick Street (42%), and with fewer in Wardour Street (30%), due to the density of offices and film industry uses (Table 2).

Business ethnicity

Soho is one of London's most multi-cultural neighbourhoods, which is reflected in the diverse ethnic character of its businesses. Business ethnicity is defined as the ethnic character of the products, goods or food & drink served in the premises or other services provided. The increase in the diversity of ethnic character contributes to its cosmopolitan character, as defined by the council. However, it is debatable if this diversity is related to its current demographic structure and business ownership (Collins 2018). Overall, in three streets, 22 ethnically different businesses were present in 2008, compared to 27 in 2016, a 23% increase

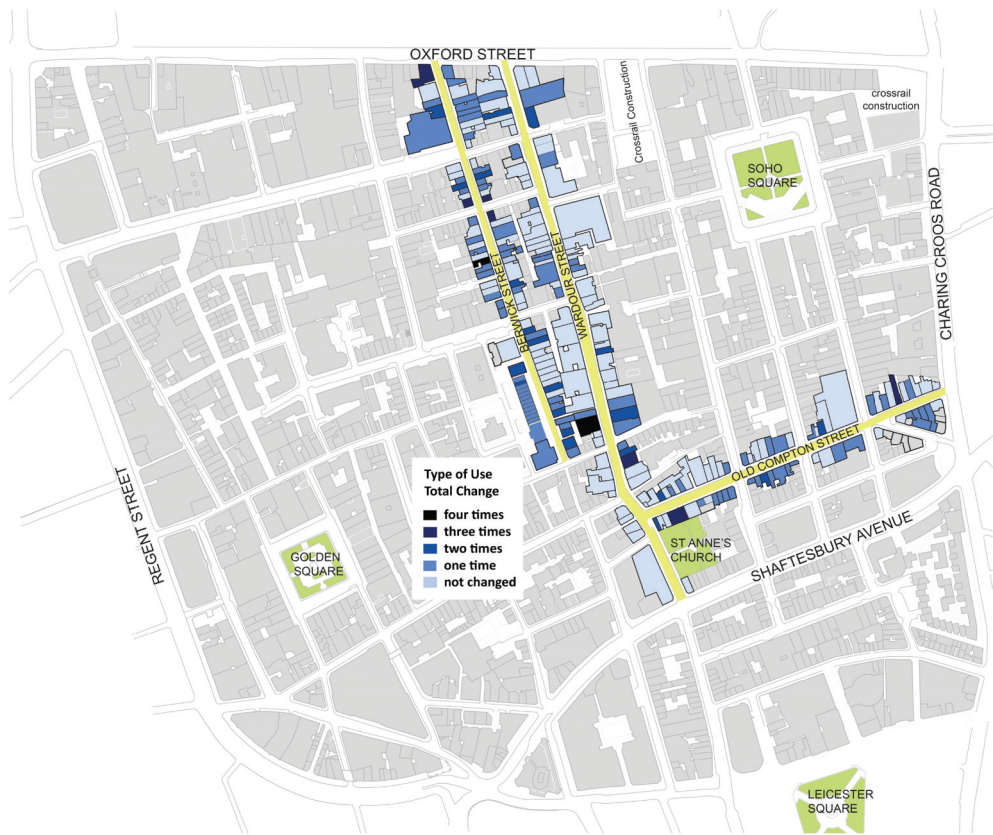


Figure 5. Map of change of type of use (2008–2016). (Source of Base Map: © Crown Copyright/database right 2011. An Ordnance Survey/EDINA supplied service. Source: Edina Digimap Service, 2011)

in ethnic diversity. American, Mediterranean and East Asian businesses have increased at the expense of European, Indian and South American businesses. These changes in business ethnicity may be the result of globalization and immigration, as Zukin, Kasinitz, and Chen (2016) argue. There are differences, however. Business ethnicity increased 75% in Berwick Street 6% in Wardour Street, but decreased by 15% in Old Compton Street. Changes in business ethnicity are related to the streets' popularity. Ethnic variety increased much earlier in Old Compton Street, while Berwick Street has only recently become 'trendy'.

Pavement use

Soho is a vital place with many outdoor eating and drinking venues. There are several pavement uses, i.e., licence to use tables and chairs on the pavements and people standing, in different parts of Soho and, on average, 15% of the premises in the three streets have pavement use. Overall, however, pavement use has not changed in the period 2008–16. Old Compton Street has the most pavement use, but this reduced by 12% in this period, and similarly, there was 11% decrease in Wardour Street, while in Berwick Street there was an increase of 20%.

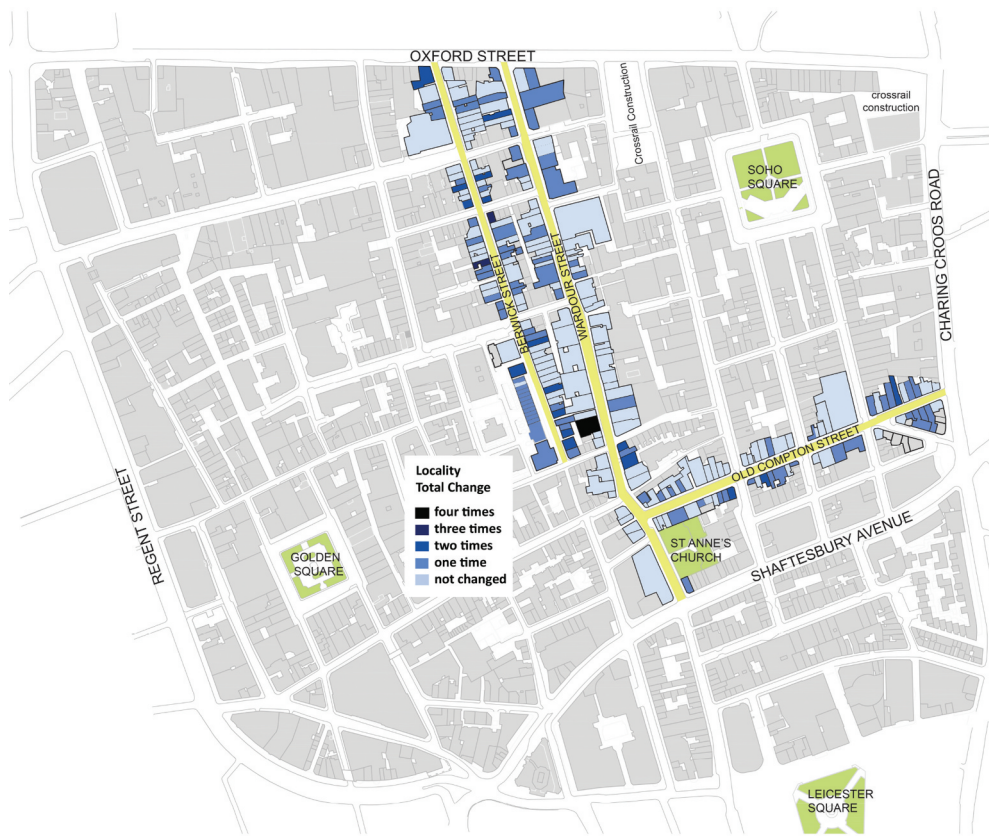


Figure 6. Map of change of locality (2008–2016). (Source of Base Map: © Crown Copyright/database right 2011. An Ordnance Survey/EDINA supplied service. Source: Edina Digimap Service 2011.)

This rather marginal change in pavement use is surprising, given people’s complaints about the noise, congestion and open-air bars. Limiting the number of pavement cafes is one of WCC’s licencing aims. However, extended opening hours have generated more late night activity, and congestion has increased along Old Compton Street due to lax enforcement of licencing and opening hours (Roberts and Turner 2005). Although these changes in opening hours do not directly lead to gentrification, uncontrolled noise and congestion is a threat to neighbourhood satisfaction and may encourage people to consider relocating (Bashir and Flint 2010). Although the council claims to be a protector, the residential character of neighbourhood, extending opening hours and granting planning applications for change of use raises doubts over this role.

Scale

Soho has a fine grain urban fabric, which WCC describes as one of its defining characteristics. The average ground floor area is 90 m² in Berwick, 114 m² in Old Compton and 191 m² in Wardour Street. The buildings are mostly small scale, 3–5 stories, with relatively narrow frontages of 4–6 metres. Scale has changed little in the three streets, and there are

only 2 premises in Berwick Street where the ground floors had been divided into two separate businesses, and 2 other premises that had been merged on the ground floor. Two premises in Old Compton had also merged into a single business. No change in scale was observed in Wardour Street.

There is seemingly constant construction work across Soho, with pavement and road repairs, facade renovations and alterations, changes to ground floor frontages, as well as buildings being completely demolished and redeveloped in some parts, especially in Berwick Street, Broadwick Street, Brewer Street, Golden Square and Greek Street. Buildings on the corner of Dean Street and Charing Cross Road have been demolished as part of the Crossrail project, triggering public protests.

Building scale, street and plot pattern are much more resistant to change than detailed land uses (Conzen 1960). Despite several redevelopment projects, construction and street works, the building scale has changed little, especially in the inner parts of Soho, which accords with WCC's local plan policies. However, construction work has raised public concern, giving the impression that building scale is changing, and is a sign of gentrification and upscaling.

Change index

A change index was constructed based on the average number of changes per property in each 2-year period (Figure 7). The change index over the 8-year period for Berwick Street is 3.8, for Old Compton Street 3.0 and for Wardour Street 2.3. (This means that each property in Berwick Street, for example, experienced 3.8 changes over the 8 years). The index is useful in identifying the pace of change, i.e., whether change is accelerating or slowing in a particular neighbourhood. The highest level of bi-annual change in Old Compton Street was between 2010–2012, and in Berwick Street, between 2014–2016 (Figure 7). The sharp increase in Old Compton Street may have been due to the London Olympics, which perhaps more affected Old Compton Street as the most touristic of the three. In Berwick Street, change accelerating after 2014 was due to the private sector construction work (Figure 7). Figure 8 summarizes the total change from 2008–2016 in each street. Business name and type of use have changed most, and pavement use and scale least. These objective measurements are compared with the perceptions of change as explained in the below section.

Perceptions of change

According to the survey results, there is a clear correspondence between the results of objective measurements and people's perception for type of use, business name, locality and business ethnicity. When respondents were asked what is changing most in three streets, 82% selected type of use; 72%, business name; 64%, locality; and 40%, business ethnicity\highlighting these changes with comments such as, 'Endless coffee shops, too many hotels being built, office space to hotel space, and dweller to occasional'.

The results of the survey show that people perceive that Soho is losing its local character, a change debated among residents in local forums, and national media (Rustin 2016; Standard 2016) (Table 1). People expressed their concerns, for example, 'The individuality of Soho is being eroded. Once it's gone, it's gone.' 'Not enough

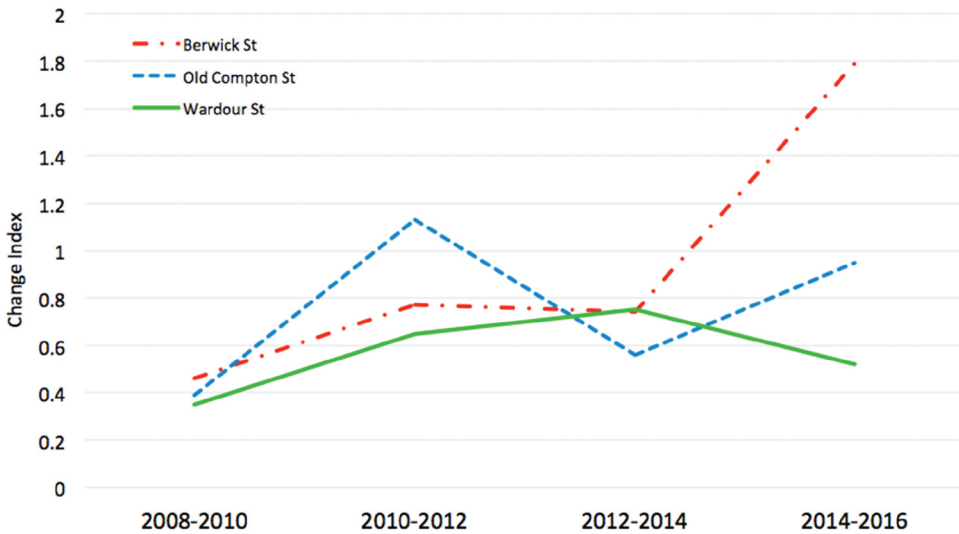


Figure 7. Change index 2008–2016.

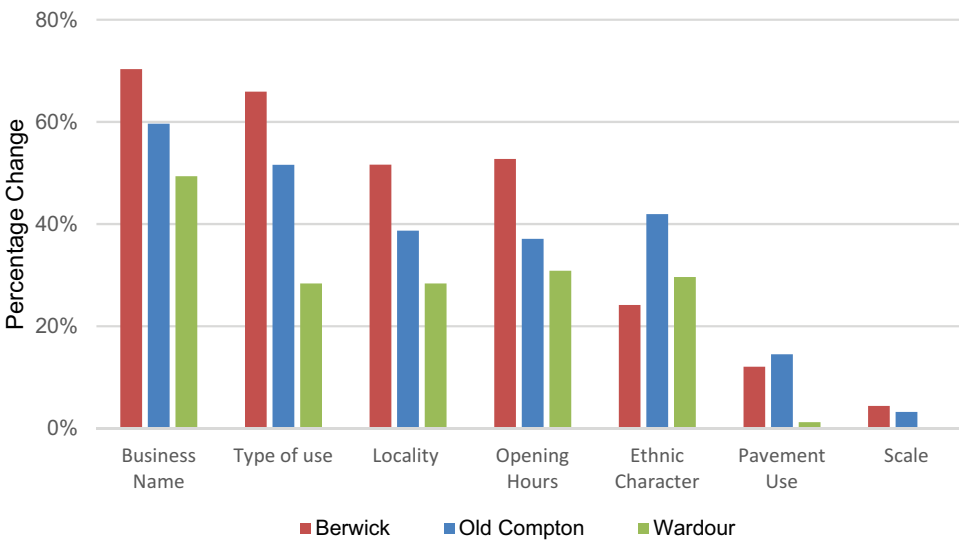


Figure 8. Change 2008–2016.

independent shops, is becoming like a theme park.’ ‘London is becoming a popular tourist destination . . . rents and business rates have risen rapidly’.

The vast majority (98%) of respondents think that all three streets have changed. Sixty-eight percent selected change of 4 or 5 for Berwick Street (where 5 indicates ‘a lot’ and 1 ‘a little’), while only 38% of respondents selected 4 or 5 for Wardour and Old Compton Street. Issues considered especially significant in changing character were change of

Table 4. Comparison of findings from the survey and objective measurements.

Indicator	Local perception		Objective measurement		Evaluation of results
Type of Use	Changed	82%	Changed	49%	Correspondence in findings
Business name	Changed	72%	Changed	60%	
Locality	Changed	64%	Changed	64%	
Ethnic Character	Changed	40%	Changed	40%	
Scale	Changed	80%	Not much, some change	3%	Difference in findings
Pavement Use	Changed	40%	Not much, some change	9%	
Opening Hours	Not much Some change	16%	Changed	40%	

property ownership in Berwick Street, the management of the market, and the loss of longstanding local businesses (Stockpot, the Hobbit, Soho News, Zest, etc.).

Change is perceived to be accelerating in all three streets, especially in Berwick Street where 72% of respondents selected 4 or 5 (where 5 is fast change). Forty-six percent selected 4 or 5 for Old Compton Street and 52% for Wardour Street. Furthermore, many selected unacceptable when asked how they feel about the change: for Berwick Street (59%), Old Compton Street (41%), Wardour Street (49%).

People's perception of change corresponded to the objective measures of change for 4 of the 7 indicators: type of use, business name, locality and business ethnicity. However, there was a difference between the objective measurement and people's perception for the others: change of scale, pavement use and opening hours. Eighty percent of online survey respondents thought that scale had changed most, for example, 'when major refurbishment occurs the new units tend to be larger in size and often marketed to chain operators'. Although pavement use has little changed, some (40%) do not perceive this. This could be also due to pavement repair works. Lastly, although extended opening hours has increased, people's perception did not mirror this finding (16%). [Table 4](#) below corresponds the findings from the survey and the objective measurements.

Discussion

The 7 indicators used in this paper to measure neighbourhood change represent some of the key elements that define character and contribute to urbanity and activity ([Table 2](#)). As Gehl, Kaefer, and Reigstad (2006) argued, ground floor uses and frontages are the most significant factor in determining the individual character of an area, and generate activity and diversity at street level, at the interface between the building and life in the street. They are also among the issues of deep concern to local residents and workers, and may trigger migration from the neighbourhood (Bashir and Flint 2010; Hall 2015; Zukin, Kasinitz, and Chen 2016). Ground floor frontages affect the socio-cultural character, 'the soul of a neighbourhood' (Barton 2016).

The signage of the business name are character 'signatures' (Treu 2012) and a change of business is often the result of higher rents, forcing businesses out of the area as one local owner in Berwick Street reported and this churn is a threat to the sustainability of the local business ecosystem. As one resident put it, 'Local affordable restaurants and cafes have given way to commercial premises for tourists and visitors, anonymising the area, which is heart-breaking'.

The findings show that businesses changed over 50% on average in 3 streets, changes that are related to the dynamic nature of Soho, its location, the pressure to meet the

demands of increased tourism and to the changes in the global economy (Carmona et al. 2003). The pattern in these three streets of chain stores replacing independents, and restaurants and cafes replacing offices and shops characterizes change throughout Soho, and is an indication of commercial gentrification (Zukin, Kasinitz, and Chen 2016), driven by a 'commodification' of place by global corporations (Erickson and Roberts 1997). This issue raises much public concern and, as mentioned earlier, the WCC, in its draft plan for 2019–2040, aims to protect Soho from market pressure, and also, to provide support for start-ups and small-scale businesses (WCC 2019).

As Dovey, Woodcock, and Wood (2009) and Tewari and Beynon (2018) argue, findings from this research suggest that residents' perceptions of what constitutes character are different to that of the Council. Residents refer to the soul, spirit, and atmosphere, while WCC refer to characteristics that are more related to land use, such as creative clusters hub, entertainment and shopping district, and residential area. There are also inconsistencies between council policy and action on the ground. Changes in land use approved by the Council in fact contradict their avowed intent to protect Soho's unique character as a vibrant mixed-use residential community, creative industry hub, and the home of London's LGBTQ+ community. Film companies moving away from Soho, the redevelopment of Film House, and a decrease in LGBTQ+ venues are all indications of an erosion of Soho's creative character. The change of use has resulted in redevelopment and new construction (Carmona et al. 2003) and commercial transformation, which indicate a wave of commercial gentrification (Gainza 2017) and transition in neighbourhood character (Zukin 2008; Loukaitou-Sideris, Gonzalez, and Ong 2017; Gainza 2017; Franz 2011). This process is most apparent in Berwick Street, perceived to have changed more and faster than the other two. The redevelopment of the podium building has contributed to this perception, and, as clearly reported in the planning application, is strongly objected to by locals, debated among the residents, and reported in an online survey. The increase in eating and drinking venues at the expense of local shops and offices is fuelling concerns about loss of residential services such as local food shops, hardware and plumbing, newsagents, tailors, dry cleaners, etc. This is seen as a threat to Soho's character as a vibrant mixed use residential community.

As discussed so far, Soho's identity is not only physically measurable; it is an amalgamation of many different factors that co-exist in people's minds and emotions, and are embodied in art, music, memory, interactions, actions, and history (Davison and Rowden 2012). Character and identity of Soho is shifting towards a more commercialized, touristic, upscale, trendy neighbourhood, away from the local, edgy, seedy, bohemian neighbourhood that it once was.

Conclusion

This paper focused on two major questions. First, it asked to what extent perceptions of neighbourhood change match objective reality. Second, it examined how Soho's character and identity are changing. The results show that on 4 out of 7 indicators, perception closely matched reality, i.e., on type of use, business name, locality, and business ethnicity. However, there was a difference between the objective measurement and people's perception on 3 of the indicators: scale, pavement use and opening hours. For example,

people perceive that building scale and pavement use are changing, whereas objective measurement in the three streets shows relatively little change. It seems that people attach much greater weight to these two factors and even very small changes, loom large in people's perception. Scale and pavement use have physical dimensions, and as Fisher-Gewirtzman (2018) argued, physical factors have a greater impact on perceptions. This seeming discrepancy between perception and reality might also be related to the much greater change of scale happening elsewhere in Soho, and people might transpose this perception to the three streets in question, in spite of reality. Major construction works that change the visual setting, can change the sense of scale for pedestrians and change their perception of space (Fisher-Gewirtzman 2018).

Objective measures of change, surveys of people's perceptions and analysis of media, demonstrate clear evidence of commercial gentrification in these three streets. The changes in character and local culture are signs of gentrification, which are perceived and intensely discussed by locals. Other signs of gentrification which are clearly observed and highlighted by locals include increasing construction, renovated facades, upscale cafes, bars and trendy stores, the spread of chain stores (Franz 2011; Zukin, Kasinitz, and Chen 2016; Loukaitou-Sideris, Gonzalez, and Ong 2017; Gainza 2017), the reduction of LGBTQ+ venues, adult and entertainment uses (Sanders-McDonagh, Peyrefitte, and Ryalls 2016), the reduction of residential uses and shops, and the reduction of affordable independent shops.

In terms of methodology, the use of photographic evidence in the way described in this case study provides a practical, reliable and valid method of measuring neighbourhood change. The method could be applied in any mixed-use inner-city neighbourhood that has commercial ground floor uses. Depending on the circumstance, other context-specific indicators might be devised relating to climatic factors, topography, etc., or current indicators can be replaced with other context-specific ones (Loukaitou-Sideris, Gonzalez, and Ong 2017). The change index allows these modifications through modification of the formula.

Although the perceptions and attitudes of residents towards neighbourhood change mainly reflect what is happening, there is also a discrepancy between the perceptions and reality. The other discrepancy is between the residents' perceptions of what constitutes character, and that of the Council, as also argued by Dovey et al. (2019) and Tewari and Beynon (2018). Furthermore, there are also inconsistencies between council policy and what is happening on the ground. What do these differences mean and how can they be evaluated? As Davison and Rowden (2012) suggested identity and character are not only physically measurable, but also embedded in people's minds; this makes it important to use perceptions for measuring change. However, as Bashir and Flint (2010), Permentier, Bolt, and Van Ham (2011) and Lupton and Power (2004) argued, evaluating the perception of change is a complex issue because different actors usually have different experiences and opinions. Therefore, reliability can be increased by triangulating surveys with other qualitative and/or quantitative methods and objective measurements when using perceptions for measuring change. Exploring these anomalies might provide an approach of weighting the indicators, a line of enquiry that seems worth pursuing.

Acknowledgments

We would like to thank Elif Geylani for her contribution to mapping and visualising the data.

Disclosure statement

No potential conflict of interest was reported by the authors.

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