# Urban landscapes and the atmosphere of place: exploring subjective experience in the study of urban form

# Phil Jones, Arshad Isakjee, Chris Jam, Colin Lorne, Saskia Warren

School of Geography, Earth & Environmental Sciences, University of Birmingham, B15 2TT, UK. E-mail: p.i.jones@bham.ac.uk

## Abstract

Urban landscapes are produced through the combination of material forms and subjective human experience. Drawing on the concept of atmosphere, we argue that human experience of urban spaces drives alterations to the built environment, making it critical that these are studied in tandem. Atmospheres are created through the combination of human activity, individual emotional responses and subjective perceptions of built forms. These atmospheres, though unique to the individual, can also create a shared feeling of place. Drawing on ethnographic methods to examine the lived experience of the Balsall Heath district in Birmingham, UK, a series of examples is used to illustrate how the intersection of subjective experience and built forms creates different atmospheres within the neighbourhood. These atmospheres, and the desire to alter them, are in turn driving morphological change.

## Keywords

Urban landscape; atmosphere; ambiance; ethnography; Birmingham UK

## Introduction

Urban landscapes can be considered as co-constructed by built forms and the people who create and animate those built forms. There is a proud tradition within urban morphological studies of examining how everyday processes of urban development are driven by human decision-making. Such thinking is at the heart of Conzen's (1960) account of the burgage cycle in Teasdale's Yard and Whitehand's (1972) analysis of building cycles and their impact on the creation of fringe belts. The material forms of cities are thus highly dependent on human activity. The ways in which humans engage with the material landscape of cities on an everyday basis has, however, tended to receive less attention from urban morphologists. In part this can be seen as a pragmatic response to a lack of archival material to explore such issues. Nonetheless, there is a temptation to think in terms of urban forms being the objectively 'real' background against which the fuzzy and emotionally-skewed perceptions of the individual are played out. Such thinking runs the risk of reproducing Haraway's (1988) 'god trick', where it is assumed that an objectively real world can be understood and known despite the fact that all humans come from a subjective position. As cultural geographers such as Gillian Rose (1992) have argued, the ways that we understand the world – including its built forms – can only be seen through the position of the observer. Thus for urban morphologists, it is important to explore how built forms are

created, animated and known by those who interact with them every day because those built forms can *only* be understood from a situated subject position.

In this paper we report on the use of a variety of ethnographic techniques to explore residents' interactions with the built forms of the Balsall Heath district of Birmingham, UK. Individual perceptions, histories and activities captured through these techniques are both shaped by and have reshaped the built form of this neighbourhood. We will argue that the interrelation between these different factors in the creation of urban landscapes can usefully be analysed through the theoretical lens of 'atmosphere'. The notion of atmosphere, developed primarily by UK-based cultural geographers, has emerged in parallel to the French architectural literature on ambiance. Both concepts are of value to urban morphologists because they seek to explore the interplay of human activity, individual emotional perception and built forms, thus giving a more nuanced – though necessarily incomplete – understanding of changing urban landscapes.

# Urban form and human activity

Lynch's (1960) *Image of the city* offers a useful set of tools for examining the interaction of residents with urban forms. His analysis concentrates on issues around legibility, the ways in which built form allows people to create 'useful mental images of the environment' (p9). Although based on a series of interviews with residents (including some walks with participants through study areas), his masterful typology of paths, edges, districts, nodes and landmarks reflects the study's particular focus on how legibility impacts on the navigability of spaces. Lynch is very clear that while

'There are other influences on imageability, such as the social meaning of an area, its function, its history, or even its name. These will be glossed over, since the objective here is to uncover the role of form itself.' (p46)

Thus Lynch deliberately downplays the emotional connection to place within his analysis. There have been other studies, particularly within the subfield of environmental psychology, that have attempted to look at how the urban landscape is co-constructed through an individual's emotional engagement with built forms. Whyte's (1988) study of New York, for example, used film cameras and observation to exhaustively document the movements and interactions of individuals around the city core. His conclusion was that public spaces lacking pedestrian footfall and (chance) encounter were a signal of a city in decline.

Whyte's study is open to the criticism that it focusses too much on simple *movement* of bodies to draw conclusions about the individual's emotional connection to particular locations. A similar critique was made of Hägerstrand's time geography, namely that documenting the traces of human activity without exploring the embodied and emotional actions by individuals that produced those traces 'tends to produce a cadaverous geography' robbed of the liveliness of human contact (Crang, 2001, 194). Space syntax, with its interest in urban connectivity, places an emphasis on people's interactions with urban forms, but is also open to the criticism that its analyses often leave individuals floating free of their socio-cultural and demographic characteristics. Vaughan *et al.* (2005) have given some sense of how different demographic groups might be considered within space syntax by exploring poor urban connectivity as a predictor of urban deprivation. Nonetheless, the *individual* experience seems absent from such approaches, leading Seamon (2007) to explore how phenomenological perspectives could enliven space syntax by paying attention to the formation of lifeworlds where individuals become *emplaced* within urban spaces.

Phenomenological perspectives highlight the unequal experience of individuals within urban space, particularly given the different degrees of power people have to shape their urban experience (for example, around questions of income, class, gender and ethnicity). Methodologically therefore, ethnographic techniques become crucial in exploring how individual lifeworlds and the built environment are co-constructed. This is apparent in Augoyard's (2007 [1979]) classic analysis of the Arlequin district of Grenoble. Individuals were asked to recount their experiences of walking around a newly constructed planned urban environment, built in a modernist idiom with a shopping mall acting as the community hub where life in the district was centred. These deeply personal accounts allowed Augoyard to explore the ways people actually animated the development, moving beyond the intent of the designer. One interviewee reflected, for example, on the 'rat corners' (*coins à rats* or '*racoins*') – dead spaces created by the forms of pillars and acutely angled walls. The imagined presence of a lurking menace in those spaces meant the interviewee felt they created an *ambiance* requiring extra vigilance when passing by (ibid., 144).

The somewhat similar concepts of atmosphere and ambiance have emerged in recent years from different disciplinary backgrounds to understand the interplay of built environment and human subjective position in the co-construction of place. In Edensor's (2015) analysis of a football match, for example, the atmosphere at the game is created through the coming together of the material structures of the stadium, the sporting spectacle and the embodied emotions and actions of the spectators. The atmosphere is shared between individuals yet experienced uniquely. Applying these insights to urban morphology, we can suggest the material forms of a case study site do not exist independently of those who live or pass through it, but are implicated in the creation of an atmosphere that in turn shapes how individuals respond to that location.

## Methods

Because we are interested here in questions of the interrelation of built forms and human experience, methodologically we combine conventional urban morphological techniques of map series analysis with ethnographic approaches. The ethnographic material is derived from three research projects based in the same neighbourhood between 2012 and 2015. The first technique employed a specially-written smartphone app, with participants asked to walk around their neighbourhood identifying priorities for redevelopment through taking geotagged photographs and audio clips (for details, see Jones et al., 2015). The second project explored people's access to cultural and recreational spaces within their neighbourhood and employed both conventional interviews and a walking interview technique (Evans and Jones, 2011). The third project employed a more artistic mode, collaborating with a poet in order to produce a short film about people's connection to their neighbourhood (for an example of this approach see Jones and Jam, 2016).

Convenience sampling was applied to all three projects, snowballing from key stakeholders in the neighbourhood. Such an approach does not seek to offer a representative sample of residents, but instead focuses on individuals who have a rich engagement with place and thus greater insights to offer about the everyday experience of embodied interactions with urban forms. A mix of individuals from different ethnic and class backgrounds, ages and genders took part. Data collection with the smartphone app took place October-December 2012. Quotes

from participants collected via the app are anonymous and the precise date of collection was not recorded to reduce the possibility of identifying individuals on the public web forum where these materials were hosted. In the projects where participants were interviewed directly by the researchers we have recorded the date of the interview and used pseudonyms to protect the identity of individuals.

# Case study

The research reported in this paper was undertaken in the Balsall Heath district of Birmingham which lies just to the south of the city's middle ring road, its northern edge being approximately 1.3km from the city core. In post-war Birmingham five key areas were identified for total demolition and reconstruction, most of them falling within the line of what became the middle ring road. The West Midland Group's (1948) survey of Birmingham's housing stock identified a number of small sites on the north-western side of Balsall Heath as an immediate priority for clearance, with most of the remaining houses in the neighbourhood recommended for demolition at a future date. These priority sites totalled around 20 out of 197 hectares within the modern boundaries of Balsall Heath. GIS analysis of map series data demonstrates that, in total, approximately 104 hectares of poor quality housing and factories in the neighbourhood were eventually demolished, meaning that around half the area still retains its nineteenth century buildings and layout. On the eastern side of the area, demolition was somewhat piecemeal, particularly targeting courtyards of back-to-back housing. The north-western portion of the site between Edward Road and the middle-ring road was, conversely, subject to a near comprehensive clearance by the 1970s (Area A, Figure 1). This encompassed not only the patchwork of priority sites identified by the West Midland Group, but also a fairly large area around Varna Road that was initially identified as being in good condition and not a priority for demolition. All that remained north of Edward Road was a triangular wedge of nineteenth century terraces around Cheddar Road – the significance of which we discuss below. Low-rise, medium density local authority housing was built in Area A during the 1970s utilising some of the existing road network.

As a large area of predominantly privately-rented housing in relatively poor condition, close to the city core, Balsall Heath proved tremendously attractive to post-war Commonwealth migrants. Indeed, to this day, Balsall Heath serves as a first stop for many new migrants to the city, recently attracting a significant Yemeni and Afghani population. These characteristics resulted in high population churn and an unsurprisingly high score in government measures of social and economic deprivation. Balsall Heath forms about half of the wider Sparkbrook ward. At the 2011 Census, Sparkbrook was 61% of Asian origins – predominantly Pakistani Muslim – with no one speaking English as their first language in 22% of households. Around 31% of residents had no formal qualifications, compared to a city-wide average of 21%. Some 23% of households were deemed overcrowded, nearly double the Birmingham average. Despite these statistics, this is not a classically deprived neighbourhood, with unusually strong civil society organisations and a thriving arts scene. At its eastern edge lies the Ladywood Road area, which has gained international fame as the 'Balti Triangle', home to a large number of restaurants serving different regional cuisines from the Indian subcontinent.

#### The interplay of built form and personal experience in Balsall Heath

Balsall Heath has a powerful position in the local cultural imaginary, in part because of its association with sex work up to the 1990s. In the 1960s Varna Road was the main location for prostitution in Balsall Heath (Mendelsohn, 2016) and although not originally a priority for slum clearance, housing in this area was subsequently demolished and Varna Road itself renamed. The centre of sex work activity then moved to Cheddar Road, the remaining block of cheap, privately-owned Victorian terraced housing in Area A. This area became notorious in the 1980s and 1990s as a site of 'Amsterdam style' windows, where prostitutes posed in states of undress in order to solicit custom. Because these houses were, morphologically, an island of individual buildings in private ownership in an area of local authority-rented properties, they were more open to conversion, including to illicit uses. Phil Hubbard (2000; 2001; Hubbard and Sanders, 2003) has given a nuanced account of how prostitution flourished in this somewhat isolated area with the tacit consent of local police. Some of the morphological legacy of this period can be seen in the blocking of one end of Cheddar Road (Figure 2), turning it into a cul-de-sac and preventing drive-through soliciting of sex workers. Both Varna Road and Cheddar Road have thus had changes to their material built forms in part because of how these spaces were animated by uses that created atmospheres deemed socially problematic.

Although street prostitution has long since disappeared from the area, its former presence echoes in local imagination of the urban fabric, recalling a problematic space during a problematic time in the neighbourhood's history. A local campaign to drive prostitutes out of the area in the 1990s has become part of the origin myth around the rebirth of Balsall Heath, with many participants in our research reproducing a somewhat heroic narrative, of which this example is typical:

Now this little area around this T-junction around Edward Road and Court Road used to just be really derelict and it was known for prostitution and there was lots of drugs here, lots of drug-users, lots of prostitutes and it's been completely renovated now. It's now got a women-only gym and it's a hub of activity, and next to it, it's got the South Birmingham College, used to be a mixed-college and once they found that the women were all attending the gym and the facility there, then more women started attending the college and so they turned it into a women-only centre and they get even more women doing education now. So it's had a knock-on effect, not only health has improved in the area, but education has improved in the area. (Smartphone app, audio recording, 2012)

Thus while the plan form of this part of the neighbourhood has not significantly altered since the 1970s the uses of the space have been completely transformed, creating an entirely different atmosphere in the neighbourhood.

The campaign to remove the prostitutes was driven in large part by the Muslim community, which has grown rapidly over the last thirty years to become the largest ethnic group in Balsall Heath. One of the most visible manifestations of this demographic shift is in the retail and leisure sector within the neighbourhood. One of our older African-Caribbean participants, with whom we walked around the neighbourhood on several occasions during the film-making process in the summer of 2015, spoke fondly of the shops present in Area A when he was a child prior to slum clearance. There was considerable nostalgia in this account, but also a reflection on the changing contemporary retail landscape. Shops in the area no longer cater for the rapidly

shrinking African-Caribbean community making it hard to source West Indian speciality foodstuffs. Beyond this, however, this participant spoke candidly about the *experience* of being black in Balsall Heath today, particularly his perception of facing racial discrimination at the hands of Muslim shopkeepers, contrasting this with his recollection of life in the now demolished area. Thus memories of a built environment which has now disappeared along with the once vibrant African Caribbean community that lived there becomes entangled in a wider set of contemporary concerns about racism. The sense of being left behind as the neighbourhood has rapidly changed created an atmosphere of a place in which he felt much less welcome.

The changing retail landscape was vividly captured by one participant in the smartphone study as he walked a transect down the Ladypool Road, giving a narrative of what he was looking at as well as a history of some of the businesses:

... on the opposite corner we have Ziggi's Studios which sells all wedding outfits for ladies and gents and on the opposite corner we have estate agents, Ishy's and next to it is Sheikh Hameed's which has been here for the last 30 years. This is very prosperous area, there's lots of different businesses here, there is J.P. Jewellers which has been here for over 30 years, there is Zamzam kebab house on the corner of Ladypool Road, and then we've got all jewellery here, we've got ladies clothing, we've got Jewel Box which sell all artificial jewellery, then we've got Dixy's takeaway chicken, then we've got Rehman Jewellers which has been here for about at least 20 years. (Smartphone app audio recording, 2012)

This recording not only captures some of the richness of the street scene, but also a pride about how south Asian businesses are deeply rooted within the neighbourhood. Indeed, the 'balti' form of curry was invented on the Ladypool Road, giving rise to this area being dubbed the Balti Triangle in local place marketing. Although the urban forms are typical of late-nineteenthcentury Britain, Ladypool Road the street possesses a hybrid atmosphere mixing British and south Asian cultures (Figure 3).

The closure of pubs in the area is another significant symbol of the neighbourhood's demographic transition. The reasons for these closures are complex – partly reflecting changing patterns of alcohol consumption, including the reduction in the number of UK pubs from 58,200 to 48,000 between 2006 and 2013 (Snowdon, 2014, 11). Balsall Heath also saw problems with local criminal gangs that drove the closure of some pubs. Undoubtedly, however, the shrinking non-Muslim population has had a major part to play in reducing the market for these institutions. During the walking interviews, pubs formed an absent presence, still shaping how people understood their neighbourhood. Passing the site of the Old Crown, one participant recalled that this had been the pub where he had drunk his first pint of beer and went on to discuss how the landlord and landlady of the pub had been staunch supporters of community activity, including the Balsall Heath Carnival (Walking interview with Ivan, 14 February 2014).

The former Old Crown building is located on the boundary of Area B, a sizeable slum clearance site on the eastern side of Balsall Heath (Figure 4). Originally a mix of larger terraces and back-to-back courtyards, the site was almost completely cleared by the 1970s to make way for Clifton Primary School and Pickwick Park. The former pub, the only remaining original building on the site, is now unrecognisable from its former use, having stood derelict for several years before being converted into housing in 2012 (Figure 5). Other uses to which former Balsall Heath pubs have been converted include a business centre and a restaurant. These pub conversions leave

the built forms of the neighbourhood intact, but reflect how the place now *feels* very different than in the past, even though former uses still have resonances for longer-term residents.

Different individuals view the same space in quite different ways, some seeing openness, others seeing barriers, neither of which are necessarily obvious within the material forms of the urban landscape. Jill, a local artist working in pottery and other media, recalled an encounter with a group of women living in Barnt Green, an affluent area just outside Birmingham:

...when we inherited the looms from Bournville Art College... I'm a member of the Guild of Weavers, Spinners and Dyers and all the ladies who go to the Guild they, a lot of them live over in Barnt Green and I'm going, yeah [the looms are] all in the Old Print Works in Balsall Heath and they literally like, all turned their back on me you know, it's like, whoa. I don't know how you fix its reputation really. (Interview with Jill, 6 November 2015)

Jill used this story to make a point about how some (wealthier, white) outsiders imagine Balsall Heath as having a threatening atmosphere and thus erect invisible walls around it. She contrasted this negative image with the neighbourhood's vibrant arts and creative scene. Balsall Heath was home to the Moseley School of Art (1900-1976) and the base for the Birmingham Surrealists in the 1940s and 1950s (Poolman and Rowe, 2014). More recently the Old Print Works (OPW) and Ort Café have been established in a disused factory building on the Moseley Road (Figure 6), providing a hub for a variety of arts practitioners based in and around the neighbourhood. From the outside, the OPW looks like a semi-derelict building, requiring a certain degree of cultural capital (Bourdieu, 1984) to recognise it as an (alternative) arts space and have the confidence to engage with it:

I feel it's [Ort Café] probably aimed at the middle-class Balsall Heath. Increasingly, there are white middle-class people moving in. And I feel it is quite white. Also thought I feel that maybe more of its users come from other locations like Moseley [a wealthy neighbouring suburb]. That's the sense I get. (Walking interview with Heather, 7 March 2014)

Many of the community members that we spoke to as part of the project had never been into the OPW, despite its prominent central location. As one interviewee commented:

Ort is on the other side of the road so it almost feels to me like it is outside of my community. And although it is very close, around a ten-minute walk, which is nothing, I don't know anybody here who goes to it. (Walking interview with Amy, 16 February 2014)

There is quite a sharp contrast between an atmosphere of middle-class white privilege within the OPW and that felt on the streets outside it which reflect a residential population that is predominantly Muslim and economically challenged. Depending on the subject position of the individual, both these spaces can feel threatening for different reasons – whether this be lacking the cultural capital to confidently engage in an alternative arts space or feeling like a highly visible outsider in a tightly-knit Muslim community. The built forms of Balsall Heath are very similar to parts of neighbouring Moseley and King's Heath which, being largely white and wealthy, possess an atmosphere that would seem much less intimidating to economically privileged outsiders (e.g. the weaving hobbyists from Barnt Green). These boundaries exist as much in the perception of the individual as they do in the built environment, but they are no less real for the effects they have on the ways people engage with different places.

# Conclusion

A conventional urban morphological analysis can tell us a great deal about the evolving form of Balsall Heath from a village on the edge of Birmingham, to a typical nineteenth-century English industrial suburb, to post-war slum clearance and new phases of plot repletion. Here, however, we have sought to go beyond just exploring the material fabric of this neighbourhood towards thinking about how that fabric shapes and is shaped by the lives of the people who live there.

In this we find common cause with scholars using notions of atmosphere and ambiance to explore the interplay of built environment and individual emotional perception. Both atmosphere and ambiance accept that perception is individual and subjective but also explore how, in combination with the material world, a shared or common understanding of an urban landscape can emerge in particular times and places.

To take one example, prostitution in Balsall Heath was partly a product of how its built forms helped to attract a relatively deprived population with less power to demand that the police tackle crime and anti-social behaviour in their area. Although the neighbourhood's prostitution problem is now largely confined to history, it still creates a particular atmosphere felt by people in that place today. For outsiders, this historical atmosphere is negative, making people more reluctant to visit, despite sharing the same nineteenth-century terraced typological form as wealthier neighbouring suburbs. The urban form around Cheddar Road area has only been slightly altered, with the blocking of a road, but for some it has become a symbol of the transformed atmosphere across Balsall Heath as community members took some control back from the pimps and associated gangs.

The notion of atmosphere emphasises the dynamic qualities of urban landscapes. Different people will encounter the same built environment in different ways, although with some sharing of experience depending on the subjective position they possess. There is a crucial feedback here. Material forms are not simply a backdrop against which subjective individual lives play out. They can be reshaped as people seek to alter the atmosphere of those places. This might be something as simple as a change of façade when demographic shifts mean the population no longer values the services offered by a pub. But it can also be something more radical. In the Balsall Heath case, a major programme of gathering local views about the experience of living in the area and aspirations for change has resulted in the production of a Neighbourhood Plan, which has statutory power under the UK's Localism Act, 2011 (Balsall Heath Neighbourhood Planning Forum, 2014). This plan, based very strongly on local people's experience of place, is intended to alter the built forms of this area as part of a process of changing its atmosphere to be more in keeping with the aspirations of residents to make an attractive place in which to live and work. This, of course, raises interesting issues in terms of which individuals have the power to alter the atmosphere of different places. Nonetheless, it is clear that ethnographic approaches have tremendous value in demonstrating how the evolving atmospheres of place drive and are driven by alterations to the built form of our cities.

# Acknowledgements

This paper is the product of funding from the Arts and Humanities Research Council, grant numbers AH/J006580/1 and AH/J005320/1 and from the Connected Communities Festival 2015. The authors would like to thank all the participants in the research as well as the editor and anonymous referees for their very helpful feedback on the initial draft of this paper. The film and poem produced about Balsall Heath as part of this project can be viewed at https://youtu.be/V4A3xoOvEZ8 - thanks to Derek Cooper for collecting the footage.

# **Figure Captions**

Figure 1. Balsall Heath, showing the principal areas subject to post-war slum clearance. Of the roads retained after slum clearance, the notorious Varna Road – now Belgravia Close – was the only one renamed.

Source: Base map, Ordnance Survey Mastermap 2016 edition.

Figure 2. Cheddar Road, showing measures to prevent through traffic as part of changes to the physical landscape intended to deter drive-by soliciting of sex workers. Today it is an unremarkable street of nineteenth-century terraced housing. Source: Author, 2016

Figure 3. South Asian restaurants in nineteenth-century buildings on Ladypool Road. Source: Author

Figure 4. Detail of Area B before slum clearance (left) and after redevelopment (right). The former Old Crown is the only building that survived the redevelopment. Source: Ordnance Survey 1:2500 edition 1890 and Mastermap 2016 edition

Figure 5. Former Old Crown pub, unrecognisable from its previous use, now converted to housing.

Source: Author, 2016

Figure 6. Old Print Works and Ort Café, new cultural facilities housed in a converted factory facing Moseley Road. Source: Author, 2016

## References

- Augoyard, J.-F. (2007 [1979]) *Step by step: everday walks in a French urban housing project* (University of Minnesota Press, Minneapolis).
- Balsall Heath Neighbourhood Planning Forum (2014) *Balsall Heath Neighbourhood Development Plan 2014-2031* (Birmingham City Council, Birmingham).
- Bourdieu, P. (1984) *Distinction: a social critique of the judgement of taste* (Routledge & Kegan Paul, London).
- Conzen, M. (1960) Alnwick, Northumberland: a Study in Town Plan Analysis (George Philip, London).
- Crang, M. (2001) 'Rhythms of the city: temporalised space and motion', in May, J. and Thrift, N. (eds) *Timespace: geographies of temporality* (Routledge, London) 187-207.
- Edensor, T. (2015) Producing atmospheres at the match: fan cultures, commercialisation and mood management in English football. *Emotion, Space and Society* 15, 82-89.
- Evans, J. and Jones, P. (2011) The walking interview: methodology, mobility and place. *Applied Geography* 31, 849-58.

- Haraway, D. (1988) Situated knowledges: the science question in feminism and the privilege of partial perspective. *Feminist Studies* 14, 575-99.
- Hubbard, P. (2000) Desire/disgust: mapping the moral contours of heterosexuality. *Progress in Human Geography* 24, 191-217.
- Hubbard, P. (2001) Sex zones: intimacy, citizenship and public space. *Sexualities* 4, 51-71.
- Hubbard, P. and Sanders, T. (2003) Making space for sex work: female street prostitution and the production of urban space. *International Journal of Urban and Regional Research* 27, 75-89.
- Jones, P. and Jam, C. (2016) Creating ambiances, co-constructing place: a poetic transect across the city. *Area* 48, 317-24.
- Jones, P., Layard, A., Speed, C. and Lorne, C. (2015) MapLocal: use of smartphones for crowdsourced planning. *Planning Practice & Research* 30, 322-36.
- Lynch, K. (1960) The image of the city (MIT Press, Cambridge MA.).
- Mendelsohn, J. (2016) Varna Road (Ikon Gallery, Birmingham).
- Poolman, C. and Rowe, E. (Eds) (2014) Balsall Heath Biennale, (bigcartel.com, Big Cartel).
- Rose, G. (1992) 'Geography as science of observation: the landscape, the gaze and masculinity', in Driver, F. and Rose, G. (eds) *Nature and Science: Essays in the History of Geographical Knowledge* (Historical Geography Research Series, London) 8-18.
- Seamon, D. (2007) A lived hermetic of people and place. *Proceedings, 6th International Space Syntax Symposium, Istanbul*, iii01-iii16.
- Snowdon, C. (2014) *Closing time: who's killing the British pub? Briefing 14:08* (Institute of Economic Affairs, London).
- Vaughan, L., Clark, D.L.C., Sahbaz, O. and Haklay, M. (2005) Space and exclusion: does urban morphology play a part in social deprivation? *Area* 37, 402-12.
- West Midland Group (1948) *Conurbation: a planning survey of Birmingham and the Black Country* (The Architectural Press, London).
- Whitehand, J.W.R. (1972) Building cycles and the spatial pattern of urban growth. *Transactions of the Institute of British Geographers* 56, 39-55.
- Whyte, W.H. (1988) *City: rediscovering the centre* (University of Pennsylvania Press, Philadelphia).