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A tale of "two streets": changing land-uses and media contexts on Oxford Street, 1970 and 2019 compared

Farbod Afshar Bakeshloo[1], Dr Sam Griffiths[2],

[1] PhD candidate (Space Syntax Lab, the Bartlett School of Architecture, UCL), the UK

[2] Associate Professor (Space Syntax Lab, the Bartlett School of Architecture, UCL), the UK

Abstract

One of the indications of social change in a city is the shift in the character of its central shopping street, particularly the dominant pattern of land-use. This paper focuses on the shifts in the function of Oxford Street, during the historical transition of London from a late-twentieth-century 'modern' city, to a twenty-first-century 'digital' city, in order to better understand the broader socio-economic and media contexts of this change. The research presented contrasts the mapped land-use profiles of Oxford Street in 1970 and 2019 at the building scale to identify shifts in the socio-economic and cultural image of this street. It examines the land-use data of the street at three levels of analysis: 1) Group level (nine general types), 2) Category level (52 category types), 3) Class level (over 600 detailed types). Statistical exploration of these three levels enables the research to highlight precisely how Oxford Street functioned as a centre of retail and arbiter of cultural taste in these two eras and the balance of change and continuity over the intervening period. In particular, the research shows how mapped land-use data can help to inform our understanding of the spatial outcome of changes in the broader cultural and media environment, particularly those associated with the rise of social media since the 2010s. This shift, it is argued, affects how Oxford Street space is perceived by citizens as a social space. In seeking to understand it, we can reflect on how the past of Oxford Street can help us to understand its future.

Keywords: *land use, shopping street, mapping, Oxford Street, retail*

Introduction

The central shopping street is one of the most recognisable elements of any city. It is what represents it as a city both to its inhabitants and the wider world. Any change in the function of this element is a meaningful sign of a change in the city's dynamism. The transformation of traditional urban centres wrought by online and internet technologies in the twenty-first century raises the question of whether even major centres such as Oxford Street have a future. This paper highlights the spatial-morphological processes which enable a major historical shopping street such as Oxford Street to re-invent itself in the era of digital technology. The spatial-morphological perspective necessitates a long-view on the development of Oxford Street as a centre that emerged on an important pre-urban historical road. Here, we compare the patterning of land-uses in 1970 (the modernist-era city) and 2019 (the digital city) at three levels of resolution: 1) Group level, 2) Category, 3) Class level. The fine-grained analysis offers a comprehensive understanding of the land-use patterns on Oxford Street and the role of each activity is at two distinct phases in its history. This research shows how the spatial-morphology of Oxford Street's built environment represents essential continuity in

the generation of pedestrian activity that equally leads to new kinds of activity, enabling it to adapt to successive phases of socio-economic change.

Background

The main central shopping street of historical cities acts at the global level in the city as both an attractor and generator of movements (van Nes, 2005). They are mainly found in the historic city centre with small urban blocks as well as a dense street network, and it is primarily dominated by fashion or leisure-related businesses. Oxford Street is one of the best-known examples in the world. Retail activities have mainly defined the key characteristics of Oxford Street since the 19th century (Saint, 2020). In the mid-20th century, many urban centres were affected by the urban transformations associated with modernist redevelopment, especially the major development of shopping centres and retail parks. Under this condition, the study of Oxford Street in the early 1970s demonstrated its consistent presence as a shopping destination in the 20th century (Turner and Giannopoulos, 1974). The future of this urban element has been brought into question by the digital revolution (Lemos, 2007), and online shopping has become a serious alternative for shopping streets (Jones, 2010). This change has threatened the retail culture of Oxford Street (Jenkins, 2020) and put immense pressure on it in the contemporary era (Darley, 2020). Moreover, there is a threat that activities, including retail, migrate from this part of the city to the new mentioned retail development or online platform (Jones, 2010) and changes it to a deserted space (Hughes and Jackson, 2015). The pandemic of 2020-21 represents another challenge for historical shopping centres, forcing retailers into online while shops are closed during lockdowns. Yet, it is also the case that, to a greater or less extent, the built environments of historical high streets reproduce socio-economic activity, allowing urban centres to adapt to these social changes (Hillier, 1996; Griffiths *et al.*, 2013). In this view, Oxford Street's urban life has a significant dependency on its movement flow which is the consequence of this street's role in the structure of the urban grid. According to Hillier, the spatial configuration of the urban grid is the fundamental source of 'movement economy', which generates value where businesses place a premium on (pedestrian) accessibility (Hillier *et al.*, 1993; Hillier, 1996). This approach explains why Oxford Street attracts substantial footfall, not simply because it is the location of major attractions such as Selfridges but because it is the most integrated (i.e. accessible) street in the London street network (Hillier, 1996). The theory of the movement economy suggests that this quality of centrality in itself is a source of adaptation and regeneration for streets even while particular land use functions may appear to be in decline.

Methodology

Land-use data in time series depicts urban life lies under the built environment. Examining the spatial distribution of this data at the fine-grain of the urban street shows how urban life has been transformed through time and accommodated new activities. This paper compares the spatial distributions of land-use data on Oxford Street at key points in the history of the modern (1970) and digital-era (2019) cities. This large

time span of over fifty years allows the research to clearly detect the change and continuity of activities on Oxford Street in the two distinct periods. The 1970s are associated with important chapters in the life of Oxford Street: 1) Oxford Street's reconstruction (buildings and the street) was completed a few years before 1970 (Saint, 2020), 2) The pattern of retailing/shopping in the 1960s and the 1970s is distinguished from other decades in the 20th century (Etgar, 2002), and 3) Strauss and Howe report how the 1960s and 1970s are considered a unique cohort since these years are a platform for similar macro-level social, political, and economic events during this span (1991 cited in Lissitsa and Kol, 2016). The year 2019 is selected as a contemporary period that enables a focus on land-use distributions in the era of the digital city.[1] For 1970, Kelly's post office London business directory 1970 provides detailed data about land-uses of the street, including location and type of the business. For example, 213 Crown Life Insurance Co. "213" is the building number, "Crown Life" is the business's name, and "Insurance Co." is the business's type. This data offers very high-resolution information about urban activities, which can be easily standardised based on the 2019 dataset. The data of 2019 is gathered from OS (Ordnance Survey) (EDINA, 2020). Its product, "Points of Interest" (POI) data provides a detailed location-based directory of urban land-uses in the selected area. Similar to the London business directory, this data shows a high-resolution image of activities in the studied area because it is classified by a scheme involving three levels:

- Group level: classifies land-uses based on nine groups. For the comparison in this level, the research identifies the "Principal Group", which is defined as a sub-group that covers at least 10% (equal to 67 items in 1970 and 69 items in 2019) of total activities on the street.
- Category level: breaks down the previous grouping into 52 categories (as a total). For the comparison in this level, the research identifies the "Principal Category", which is defined as a sub-category that covers at least 5% (equal to 34 items in 1970 and 35 items in 2019) of total activities on the street.
- Class level: distinguishes urban activities into 600 classes. For the comparison at this level, the research focuses on the "Principal Class", which is defined as a class that covers at least 2% (equal to 14 items in 1970 and 2019) of total activities in the street.

For comparing the land-use of Oxford Street in 1970 and 2019, it is necessary to classify these two datasets based on the same principles. Whereas OS POI data is georeferenced for mapping in GIS, the directory data for 1970 is stored in printed pages. For solving this problem, 1970 land-use data were converted manually from physical data to digital and classified based on the principles of 2019. Returning to the example of "213 Crown Life Insurance Co.", on the group level, it is grouped as the "Commercial services" land-use, on the category level, it is categorised as the "legal and financial" activity, and on the last step, it is classified as the "insurers and support activities" class. In total, the data preparation phase involved the classification of 669 records for 1970 and 689 records for 2019 in a comparative dataset.

[1] Data was collected before the Covid-19 outbreak

Results and Discussions

Results

1. Group level

Based on Kelly's post office London business directory 1970, there are 669 recorded businesses. They are classed into nine groups that represent specific features and identities. Statistics in Figure 1 shows that the principal activities of Oxford Street in this era are: commercial services, retail, and manufacturing and production (M&P[2]), which altogether shape around 85% of the street's businesses. However, it is important to note that this character is formed mainly by commercial services and retail, which contain 39.16% and 35.43% of activities in this street, respectively. Other types of activity are limited to 94 cases. These six types all together cover less than 15% of land-uses in 1970: E&H[2] by 4.63%, AED[2] by 3.89%, Public infrastructure by 3.14%, S&E[2] by 1.2%, transport" by 0.6% and "attractions" by 0.15%.

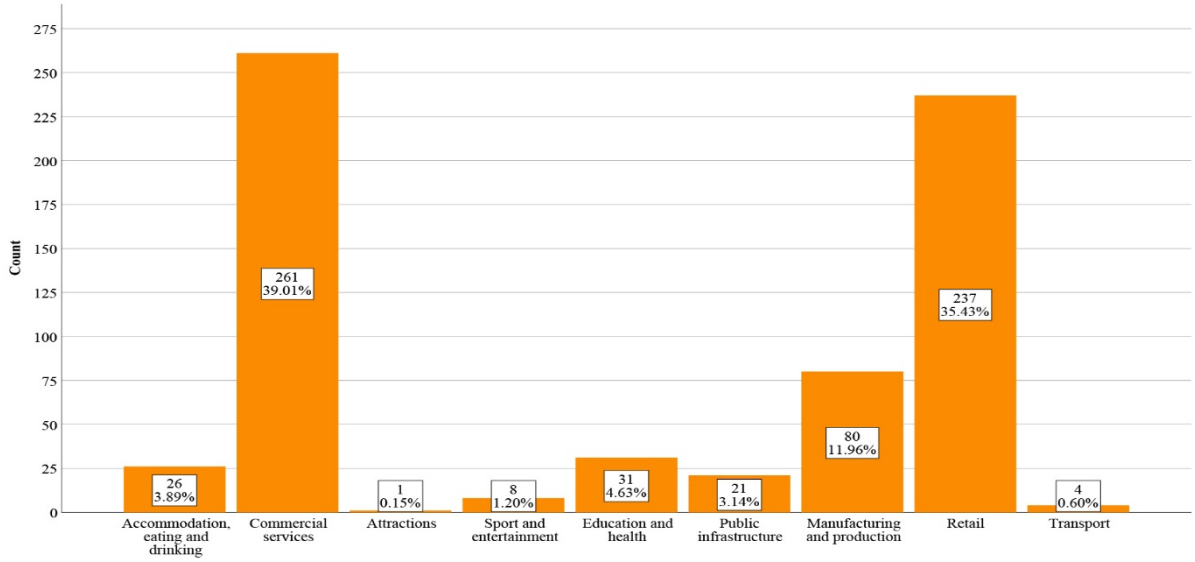

Figure 1. Classification of Oxford Street's activities in 1970 based on the group scheme

Moving to 2019, registered data shows that 689 points of interest (businesses) are recorded on Oxford Street (Figure 2). For 2019, the main activity groups on Oxford Street are: retail, commercial services, and AED, which cover around 90% of the land-uses. In this year, the identity of the street is predominated by retailing, which forms more than 50% of the activities. The second and third activities' effects are 25.83% and 10.74% on the urban space of this street. Conversely, the rest of the other kinds of activity together represent less than 10% of the total: E&H by 4.06%, M&P by 1.89%, Public infrastructure and S&E by 0.73%, and the least ones are attractions and transport" by 0.58%. (Figure 2). At first glance, the comparison between 1970 and 2019 shows a slight increase (around 5%) in the dependency of the street's character on principal groups in 2019, though the structure of principal groups is shifted meaningfully. In 1970, the members of the main group are commercial services (as the strongest actor), retail, and M&P. This cluster is dominated by

[2] M&P: Manufacturing and Production/ E&H: Education and Health/ AED: Accommodation, Eating and Drinking/ S&E: Sport and Entertainment

commercial services and retail that covers more than 85% of it. In contrast, in 2019, retail is the main character of the principal group, and commercial services and AED have smaller shares. Besides, the rapid upsurge belongs to retail land-use, which adds around 140 businesses and attains 374 businesses throughout Oxford Street. In other words, its implication covers 54.86% of activities in this street. M&P presents the most meaningful drop. Its share has been cut from 80 sites in 1970 to 13 sites in 2019, which marks 85% downward during this transition.

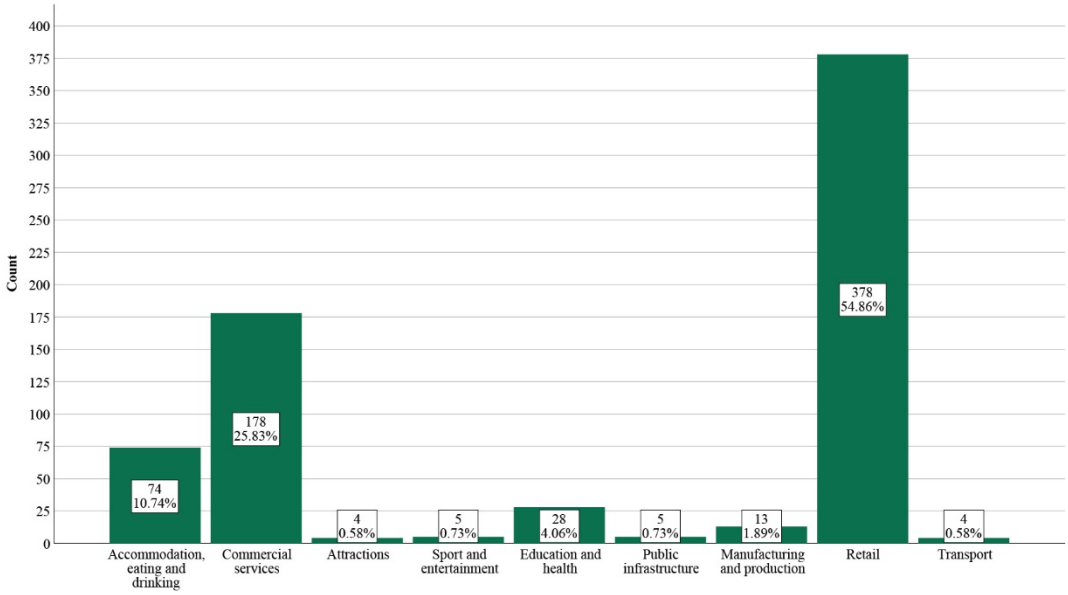

Figure 2. Classification of Oxford Street's activities in 2019 based on the group scheme

2. Category level

Figure 2 displays 31 different categories lay in the street in 1970. The principal categories cover approximately 75% of the street's activities. Initially, all these categories back to the principal land-use groups: E&CA, IAMM, L&F, PCO[3] are from the commercial services group, consumer products type belongs to the M&P group, and C&A[4] and HOLG are subgroups of the retail group. In detail, C&A is the most frequent category by far, which owns around 25% of businesses. The second one is HOLG shaping 10.46% of the street's land-uses. The next stage is occupied by consumer products activities representing 9.27% of all businesses. By comparison, the statistics display again 31 for the number of categories accommodated in Oxford Street in 2019. These categories account for more than 75% of the street's businesses in 2019. The first sight of this data illustrates that these effective categories come from the top three land-use groups for this year: E&D belongs to AED, L&F and PCO belong to commercial services, and C&A, FDM[5], and HOLG belong to retail. Then, statistics show that C&A is the main category on Oxford Street by making about 40% of activities. By the considerable gap, the next common one is E&D[5], which is recorded at 68 locations in the street. HOLG stands in the third place

[3] E&CA: Employment and career agencies/ IAMM: IT, advertising, marketing and media services/ L&F: Legal and financial/ PCO: Personal, consumer and other services
[4] C&A: Clothing and accessories/ HOLG: Household, office, leisure and garden
[5] FDM: Food, drink and multi item retail /E&D: Eating and drinking

documented in 60 points which means close to 1% less than E&D. The comparison of the 1970 and 2019's categories suggests the substantial rise occurred in the C&A category where it earns 127 new businesses and raises its impact substantially on the urban space of this street. From the proportion perspective, E&D carries the most tangible change. It increases its values from 22 to 68, which means 300% growth in 50 years. FDM type is the last element of the upsurge circle. Its rate shows a similar rise as E&D (about 285%) by increasing from 13 to 37 on Oxford Street between 1970 and 2019. On the other side, the most significant decline is materialised in the consumer products category. It depicts a clear drop by falling from 62 cases in 1970 to six cases in 2019.

3. Class Level

Based on the classification scheme, there are 133 different classes recorded in the built environment of this street in 1970. At this level, the influential classes' origin mainly back to the influential elements of the category level: employment agencies backs to E&CA, A&A and B&BC6 root in L&F, T&CA6 roots in PCO, I&E6 roots in TSD, CCA6 roots in consumer products, clothing, footwear (R), and J&FA6 roots in C&A and travel agencies roots in HOLG. The numbers of this section illustrate that clothing is the largest class in 1970. It presents around 12% of activities in the street which means a distinguishable space with other kinds. The second place is dedicated to employment agencies whose recorded rate is 6.58%. With a small distance, "Jewellery and fashion accessories (J&FA)" is approaching, which spreads through 41 sites in the street. In the digital era, the classified data displays 119 distinguished classes documented on Oxford Street. The sources of these principal classes back to the main categories in 2019: CST and FF&TO come from E&D, H&BS comes from PCO, clothing, footwear (R), and J&FA come from C&A, and CTPH7 comes from HOLG. In detail, the figure implies that the C&A classes are substantial ones in the digital era. At the top, the clothing class carries 24.38% of activities in this street, which represents a unique and incomparable role for this type. The next place is shared among footwear (R) and J&FA, displaying one-third of the clothing power (more than 7%). Lastly, the variations in the principal classes in 1970 and 2019 are carefully examined. The distribution of activities across these classes displays a similar structure in these two years. In detail, the clothing class expresses the greatest increase in its degree among all the street's classes by adding 86 new members and strengthens its position. In contrast, the employment agencies class depicts the most obvious shift by falling around 80% and limited to 10 items in 2019.

Discussion

The comparative analysis of the time-series data illustrates a clear shift to the retail activities in the land-use pattern of Oxford Street from 1970 to 2019. Generally, the findings of this research are in contrast with the

6 A&A: Accountants and auditors /B&BC: Banks and building societies / T&CA: Tailoring and clothing alteration /I&E: Import and export services /TSD: Transport, storage and delivery /CCA: Clothing, components and accessories /J&FA : Jewellery and fashion accessories

[7] CST: Cafes, snack bars and tea rooms/ FF&TO: Fast food and takeaway outlets/ H&BS: Hair and beauty services /CTPH: Cosmetics, toiletries, perfumes and hairdressing supplies

broad consensus about the "death of urban centres" (Whysall, 2011) or "decline of shopping streets" (Hughes and Jackson, 2015) in the 21st century. Conversely, the findings suggest that from 1970 to 2019, retail covers more than half of the businesses – while another half of businesses are non-retail functions, including commercial services and AED. Oxford Street shows how it can preserve its vitality through the new wave of changes made by the digital city. Although there was a drop in part of its land-uses (including commercial services and M&P activities, etc.), other land-uses (retail and AED) experienced a considerable rise and kept the number of activities similar to 1970. This outcome confirms the reports about the rise in investment in the central London high street shops since the mid-2010s and the rise in the rental price for retail properties in that area (CBRE Research, 2019; Oakley and Hickey, 2019). In detail, the analysis illustrates how clothing businesses expanded widely on the street. These findings support the economic statistics showing that the share of clothing and footwear in family spending in the UK has increased in the last 20 years. (Office for National Statistics, 2021a, 2021b). Also, the results show that eating and drinking activities increased their number significantly. The emerges of this new 'thirdspace' function in the street is similar to the findings of Ozuduru et al. (2014), who indicated that the key purposes of visiting shopping streets are "Shopping" (especially clothing) and "Eating and drinking places" in the contemporary era. In addition, the frequency of clothing and eating and drinking activities on Oxford Street represent it as a linear version of the shopping centre. Lastly, we are living in an era that online shopping has surged up; this outcome can be interpreted as a rise in demanding retail activities and raise the question of whether people prefer to shop on Oxford Street or online?

Conclusions

This study shows that the role of retail activities, specifically clothing, on Oxford Street has become significantly greater from 1970 - the era of the modern city to 2019 in the era of the digital city. At the end of this period, this type of activity (retail) covers more than 50% of businesses on this street. However, there is a consensus among thinkers that the rise of online shopping will lead to the decline of major shopping streets, including Oxford Street. This research suggests that a range of socio-economic activities, including retail, are very resilient on this street since the street continues to be a movement attractor in both eras. This footfall, as mentioned above, is created by the structure of the urban grid. In other words, the retail and socio-economic culture of Oxford Street is sustained as a spatial culture by London's urban grid. While research detects a noticeable decline in commercial services and M&P activities, this decline does not create any vacant shops on the street and cause a problem for its vitality. Instead, it has been partially compensated by other activities, especially retail and AED. Therefore, there is reason to think that Oxford Street can preserve its continuity and adapt to different changes in the built environment up to the time it has a similar role in the city. Further research will focus on the particular plot structure of Oxford Street as a source of ongoing adaptation to changing socio-economic circumstances.

References

1. Darley, G. (2020) *Survey of London: Oxford Street review – a bravura history, but also an obituary?* Available at: https://www.theguardian.com/books/2020/apr/29/survey-of-london-oxford-street-review-a-bravura-history-but-also-an-obituary (Accessed: 17 November 2020).
2. EDINA (2020) *Digimap*. Available at: https://digimap.edina.ac.uk/roam/download/os (Accessed: 14 October 2020).
3. Etgar, M. (2002) 'The retailing ecology model: a comprehensive model of retail change', in A. M. Findlay, L. S. (ed.) *Retailing: The evolution and development of retailing*. London: Routledge, pp. 294–313.
4. Griffiths, S. *et al.* (2013) 'Using space syntax and historical land-use data to interrogate narratives of high street "decline" in two Greater London suburbs', *In: Kim, YO and Park, HT and Seo, KW, (eds.) Proceedings of the Ninth International Space Syntax Symposium. (pp. 036:1 - 036:15). Sejong University: Seoul, Korea. (2013)*.
5. Hillier, B. *et al.* (1993) 'Natural movement: or, configuration and attraction in urban pedestrian movement.', *Environment and Planning B: planning and design*, 20(1), pp. 29–66.
6. Hillier, B. (1996) 'Cities as Movement Systems', *Urban Design International*, 1(1), pp. 41–60.
7. Hughes, C. and Jackson, C. (2015) 'Death of the high street: Identification, prevention, reinvention', *Regional Studies, Regional Science*, 2(1), pp. 237–256.
8. Jenkins, S. (2020) *Top of the shops: how has Oxford Street survived the slow death of the high street?* Available at: https://www.theguardian.com/lifeandstyle/2020/mar/05/top-pf-the-shops-oxford-street-survived-death-high-street (Accessed: 16 April 2020).
9. Jones, C. (2010) 'The rise and fall of the high street shop as an investment class', *Journal of Property Investment and Finance*, 28(4), pp. 275–284.
10. Lissitsa, S. and Kol, O. (2016) 'Generation X vs. Generation Y - A decade of online shopping', *Journal of Retailing and Consumer Services*, 31, pp. 304–312. doi: 10.1016/j.jretconser.2016.04.015.
11. van Nes, A. (2005) 'Typology of shopping areas in Amsterdam', *Proceedings 5th International Space Syntax Symposium*.
12. Office for National Statistics (2021a) *Household Final Consumption Expenditure: Clothing & footwear: Annual growth rate %: Current Price: Seasonally Adjusted - Office for National Statistics*. Available at: https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/kgf9/ukea (Accessed: 3 June 2021).
13. Office for National Statistics (2021b) *PP: Household final consumption expenditure, growth annual - Office for National Statistics*. Available at: https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/a275/qna (Accessed: 3 June 2021).
14. Saint, A. (ed.) (2020) *Survey of London: Oxford Street*. Yale University Press.
15. Turner, E. D. and Giannopoulos, G. A. (1974) 'Pedestrianisation: London's Oxford Street experiment', *Transportation*, 3(2), pp. 95–126. doi: 10.1007/BF00219613.
16. Whysall, P. (2011) 'Managing decline in inner city retail centres: From case study to conceptualisation', *Local Economy*. SAGE Publications Ltd, pp. 3–17.