# CYCLING THROUGH COVID-19 EXPLORING HUMAN-SCALE SENSESCAPES

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# CYCLING THROUGH COVID-19: EXPLORING HUMAN-SCALE SENSESCAPES

BY MAX CORAL

Being a dissertation submitted to the faculty of The Built Environment as part of the requirements for the award of the MSc International Planning at University College London:

I declare that this dissertation is entirely my own work and that ideas, data and images, as well as direct quotations, drawn from elsewhere are identified and referenced.

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## ABSTRACT

Using the London Streetspace Programme as a testbed, this paper compares the everyday sensory experience—or 'urban sensescape' (van Duppen and Spierings, 2013)—of cycling along streets that have been repurposed to support human-scale mobility (cyclists, pedestrians etc.) with that of cycling along streets that exist to uphold the 'system of automobility', primarily supporting cars, taxis and buses. On the ground, data was collected via a video auto-ethnography, bringing the researcher (myself) as close as possible to the subject of study so that the transient and fleeting nature of cycling might be effectively captured. Following Jones (2012), the paper employs the concept of sensory discipline to frame the analysis, arguing that human-scale streets foster a more disciplined sensescape; one that less experienced riders would likely feel more comfortable navigating. In concluding, the paper calls for urban planners to go beyond the human-scale, dismantling the 'vehicular-pedestrian binary' (Jones, 2005) by carving out spaces that cyclists can call their own.

## INTRODUCTION

A cog in the 'system of automobility' that shapes our cities (Urry, 2004), urban and transport planning policy has traditionally been concerned with ensuring cars can move through the city as quickly and efficiently as possible. However, with growing awareness around environmental issues such as climate change and air pollution, the auto-dependence that characterises our transport system is being called into question. In response, planners, policy makers and academics are looking for ways to nudge mobility behaviour towards more sustainable modes of transport such as cycling.

Drawing on theoretical concepts of access gains, King and Krizek (2020: 2) argue that reforming streets (not urban form) to support human-scale mobility (i.e. pedestrians, cyclists and e-scooters) is a 'desirable and necessary' policy if the cycle of auto-dependence is to be broken. Consequently, they call for the research community to provide guidance on how changes to street design to better support the human-scale will be perceived from the traveller's perspective and how it might change behaviour. Focusing specifically on the practice of cycling—a human-scale form of mobility—this paper will take advantage of the unprecedented context in which this research is being undertaken to respond to King and Krizek's (2020) call: In the midst of the Coronavirus pandemic (COVID-19 from here on out), London's street network is in the process of being repurposed to accommodate more cyclists (and pedestrians) through the London Streetspace Programme, ensuring that "social distancing" remains feasible and the spread of the virus is inhibited.

The emphasis King and Krizek (2020) place on the perceptual and behavioural aligns with a broader qualitative turn in mobility and cycling literature. With academic endeavours customarily fixated on analysing modal choice and other quantitative measures, a recent shift has seen a spate of ethnographic reports of cycling (see, for example Jones, 2005, 2012; van Duppen and Spierings, 2013; Spinney, 2009) interested in unpacking the "why" behind decisions of modal choice. Following van Duppen and Spierings (2013), this paper will look to enhance these accounts by applying the concept of 'urban sensescapes'—defined by Howe (2005:143) as 'the idea that the experience of the environment and of the other persons and things which inhabit the environment, is produced by a particular mode of distinguishing, valuing and combining the senses'—to King and Krizek's call for insights into the human-scale. By comparing the sensescape produced by streets that exist to support the 'system of automobility' with those that have been newly designed to encourage people to cycle as part of the London Streetspace Programme, this paper hopes to establish a better understanding of the type of urban environments that engender positive cycling experiences and thus promote sustainable mobility habits. In particular, the research will draw upon Jones' (2012) concept of 'sensory discipline' and work around 'rhythm' (Wood, 2010; van Duppen and Spierings, 2013; Edensor and Holloway, 2008) to argue that streets designed to support human-scale vehicles afford a more disciplined and ultimately pleasant sensescape than those designed to support cars.

Given the unique circumstances due to COVID-19, the context in which this paper is being written will be developed next, followed by a detailed discussion of the relevant literature and conceptual framework for analysis. The third section explains the video auto-ethnography used to gather data, the results of which are evidenced through user experience maps found in the paper's appendices (appendix 1 - 8) and discussed in section four. The paper concludes with a number of important lessons for urban practitioners looking to 'nourish' cycling habits (Schwanen et al., 2012), not least the need to go beyond the human-scale streets proposed by King and Krizek (2020) and look to provide spaces that meet the sole needs of the cyclist, thus dismantling the dominant 'vehicular-pedestrian binary' (Jones, 2005) which marginalises other forms of mobility.

# CONTEXTUAL BACKGROUND

## COVID-19; An Opportunity for Habitual Change

The COVID-19 outbreak emerged in December 2019 in Wuhan, China. By March 2020, the virus had spread across Asia to Europe and the United States, causing the World Health Organisation (WHO) to declare the outbreak a pandemic. It has since continued to proliferate across the world, with cases identified in 216 countries, areas or territories (WHO, 2020).

In response to the outbreak, national and municipal Governments have taken unprecedented measures (to varying degrees) in an attempt to control the spread of the virus and protect citizens from harm. Schools, (non-essential) shops, restaurants and bars have been closed, public events cancelled, and people have been asked to work from home and keep their distance from friends and family. Such measures, broadly termed "social distancing", are thought to help slow the spread of the virus by inhibiting the transmission of respiratory droplets from person-to-person (Wilder-Smith and Freedman, 2020).

As predicted by De Vos (2020), the pandemic and the subsequent control measures have warped city mobility patterns beyond recognition. Due to increased numbers of people working from home and an inability to attend public events, motor traffic in the UK had fallen 73% by 29th March and in London, tube and bus journeys had declined by 94% and 83% respectively (Carrington, 2020). As car traffic and public transport use fell, a surge in cycling emerged as people sought more isolated modes of travel where contact can be easily avoided (De Vos, 2020)—on 9th May in the UK, the Department for Transport reported that cycling reached 387% of the equivalent day the previous year (GOV.UK, 2020). Similar trends were evident in cities across the world; as the French Environment Minister, Elisabeth Borne, described it, "the bicycle is the little queen of deconfinement" (Economist, 2020). With global carbon dioxide emissions in early April falling by 17% compared with the mean 2019 levels (ibid.), in the context of sustainability, COVID-19 and the impact it has had on our travel behaviour is undoubtedly a positive and an opportunity for more permanent change.

Growing concerns surrounding climate change have seen the transition away from carbon-focused modes of transport rise up the agenda of policy makers and academics, with a particular strand focusing on behavioural change and how to influence modal choice (Eriksson et al., 2008). Traditionally, policy efforts to dictate modal choice have centred on the *deliberate* decisions made by individuals to travel by a certain mode (see Bamberg & Schmidt, 2001; Tertoolen et al., 1998); however, work undertaken by the likes of Verplanken et al. (1994) and Gärling and Axhausen (2003) demonstrates that deliberate consideration of travel options is often limited; instead, they argue that *habit* is a more important determinant of travel mode choice. Only once habit strength is reduced, can interventions targeted at informing attitudes and decisions be successful (Verplanken et al., 1994: 285).

Consequently, academic attention has shifted to better understanding habits in the context of transport and, more importantly, how they can be broken. Understood here as an automatic link between a goal and behaviour (Verplanken and Aarts, 1999) or, rather more poetically a 'behavioural script' stored in one's memory (Fujii and Gärling, 2003), habits are decidedly difficult to break. One theory is that changes in context hinder habitual tendencies because habits are responses to the environment in which they are performed (Wood et al., 2005). The importance of contextual change is a sentiment shared by American philosopher John Dewey who, through his own pragmatic interpretation of habit, posits that habits emerge from a connection between the person and the environment. By this logic, a car habit is not simply *done* by the driver but is an 'emergent property' of a collection of elements that include the car, roads, pedestrians, passengers, the highway code, customs surrounding car culture, institutions and much more (Schwanen et al., 2012: 526). This collection of elements, described by Venn (2010) as a 'body-mind-world' assemblage', underpins the routine of car-use.

According to Dewey (1922: 29), if habits are to be successfully altered, a change in 'objective conditions' is needed; if 'conditions have been formed for producing a bad result…the bad result will occur as long as those conditions exist'. Drawing on this work by Dewey (and fellow philosopher Félix Ravaisson), Schwanen et al., (2012) attempt to rethink the role of habits in the transition to low carbon mobility. To displace 'carbon intensive habits', they encourage contextual changes that do not align with the current 'system of automobility' (Urry, 2004; Geels, 2012), thus creating 'clashes' that create problematic situations for drivers and induce 'reflective deliberation' (Schwanen et al., 2012: 526; Dewey, 1922). Such clashes can force 'contrary dispositions' that might eventually lead to habit adaptation (ibid.).

This study positions COVID-19 as the contextual change or 'clash' needed to interrupt carbon-intensive habits. The 'body-mind-word assemblage' (Venn, 2010) that makes up the car habit has been dismantled by new government-imposed rules and societal expectations to "stay at home" and "keep your distance", fundamentally altering the urbanscape in which carbon-intensive mobility habits are tied. With the 'behavioural script' (Fujii and Gärling, 2003) disrupted, people have been forced to rethink their mobility decisions; many are turning to cycling. Within this context, COVID-19 might be viewed as an opportunity; but, while the pandemic has caused a level of 'reflective deliberation' about mobility decisions, it remains to be seen whether the 'contrary dispositions' or habit adaptation described by Schwanen et al. (2012) will materialise once the pandemic is under control, restrictions are lifted and life goes back to "normal". In this sense, it is not simply enough to disrupt existing travel habits, equally important is the 'nourishment' of the cycling habit (Schwanen et al., 2012). Given the pandemic and the unprecedented environment it has created, not knowing how long it will go on for and the opportunity at hand, understanding how to achieve this 'nourishment' of cycling habits has become a pertinent line of study.

# LITERATURE REVIEW

## Nourishing Cycling Habits; Urban Form or Street-Scale Infrastructure

Literature on how cycling habits might be encouraged is extensive. A growing trend has been to look to countries and cities where cycling already makes up a significant share of the modal split due to a body-mind-world assemblage that challenges the 'system of automobility' (see Schwanen et al., 2004; Pucher and Buehler, 2008). For example, in an article aptly titled 'Making Cycling Irresistible: Lessons from the Netherlands, Denmark and Germany', Pucher and Buehler (2008: 495) demonstrate how these three countries have made cycling 'a safe, convenient and practical way to get around'. In these countries, cycling uptake is more than 10 times higher than in other western countries such as the UK and the US, an outcome they attribute to a set of 'multifaceted, mutually reinforcing set of policies' (ibid: 525) that finely balance pro-bike measures ("the carrot") with more restrictive measures that make driving less-convenient ("the stick"); this might include taxes and restrictions on car ownership such as a congestion charge (ibid.)

Pucher and Buehler (2008) place particular emphasis on the provision of street-scale cycling infrastructure, namely cycle lanes that are physically separated from high speed, high volume, arterial roads—usually by a raised curb or barrier—as these reduce the amount of time cyclists are forced to share the road with cars, providing safe and relatively stress-free routes for all types of riders (ibid; Pucher and Buehler, 2016). Ensuring such infrastructure connects 'utilitarian origins and destinations' will increase uptake for school, work and shopping trips instead of promoting just recreational cycling (Pucher and Buehler, 2008: 523). Other effective infrastructure measures highlighted include intersection design that avoids conflict between drivers and cyclists, priority traffic signals, extensive and sensibly located bicycle parking facilities and integration with public transport that encourages multi-modal journeys (ibid; Pucher and Buehler; 2016).

Beyond street-scale infrastructural adjustments, the macro urban form has also garnered significant attention for the impact it has on sustainability and mobility habits. Defined by Lynch (1981: 47) as 'the spatial pattern of the large, inert, permanent physical objects in a city', discourse around the "right" urban form has been dominated by calls for the 'Compact City' model (see Jabareen, 2006).

Commonly associated with European cities, the Compact City model supports mixed-use, high density cities with non-sprawling boundaries, and is grounded in the notion that compactness reduces travel distances, protects open land and cultivates social interaction (Jenks et al., 1996). Later popularised by Newman and Kenworthy (1999) in their seminal book 'Sustainability and Cities: Overcoming Automobile Dependence', the model's relationship with sustainable mobility behaviour—be it cycling, walking or public transport use—has since been demonstrated in a number of different contexts: Schwanen (2002) uses Newman and Kenworthy's own data to show that, across multiple European cities, commuting distances decrease as urban density increases; Dielman et al. (2002) found that the Netherland's compact urban form has a definitive impact on modal choice and distance travelled; and Marquet and Miralles-Guasch (2015)

demonstrate that Barcelona's compact and continuous morphology accommodates a high frequency of 'proximity trips'—non-motorised trips that take ten minutes or less.

The question of whether to focus on macro urban form or street-scale infrastructural adjustment is addressed by King and Krizek (2020). They frame the issue of automobile dependence around the concept of 'access', for which there are two 'fundamental tenets', land use and transport (ibid: 2). Land use refers to 'the value of activity found at destinations' (ibid: 2) and is the idea that more things being in close proximity means greater access; it is also what we understand here to represent the urban form side of the argument. The transport tenet measures the difficulty of travel and might, for example, be influenced by changes to street-scale infrastructure. Adjusting either of these 'levers' can result in moderate gains or losses in access (ibid.) but King and Krizek (2020) argue that the transport tenet is fundamentally more 'pliable' and, as such, should be the focus of policy moving forwards.

This pliability is rooted in the feasibility of change for each tenet. The land use lever is characterised by the pattern and distribution of large and durable physical structures (buildings); while their composition might evolve as they respond to land markets and broad urban policy, such dynamics tend to play out over a very long period of time (Levinson and Krizek, 2018). Alternatively, because of the transient characteristics of street space (McShane, 1979), the transport lever can, theoretically, be adjusted on the fly—by the hour, minute or even second. Take, for example, a change in traffic signal at an intersection or the closure of a lane; such minor adjustments can have a major impact on the difficulty of travel.

Consequently, King and Krizek (2020: 2) call for policy makers to 'break the cycle of auto-dependence' by repurposing streetspace to prioritise human-scaled accessibility. Incumbent and longstanding planning policies have reinforced an existing condition in which the car operates as the 'monolithic user' (ibid: 3) of the roads, with access realised by increasing the speed and volume by which drivers can move through the city. The consequence of this system of automobility (Urry, 2004) is that those wishing to use streets for anything other than driving a car are ostracised—for decades, pedestrians and cyclists have voiced concerns about sharing the road with cars for fear of their own safety (Kaplan and Prato, 2016; Crist et al., 2018). Only, therefore, by repurposing street space to support human-scale modes of transport, namely pedestrians, cyclists and, more recently, e-scooters and e-bikes, can access be 'radically boosted for all' (King and Krizek, 2020; 4); however, the damage is so entrenched and institutionalised in traffic engineering and road standards, that this re-appropriation will likely need to incorporate *additional* street-scale infrastructural treatments (ibid.), like those aforementioned strategies highlighted by Pucher and Buehler (2008).

**The London Streetspace Programme**

This paper responds directly to King and Krizek's (2020) call for the research community to investigate how changing street design and function translates to accessibility gains or losses. In particular, they highlight the need for 'living laboratory' research approaches that examine the behavioural, focusing on

how street design changes are perceived from the traveller's perspective. Once again, COVID-19 represents an opportunity in this regard through the London Streetspace Programme.

With public transport capacity reduced and riders nervous about coming in to contact with others (Troko et al., 2011), the Greater London Authority (GLA) expressed concern that if just a small number of regular public transport riders switch to using cars, the city will become gridlocked, emergency services disrupted and air pollution will rise above the levels before the pandemic. Consequently, the Mayor of London, Sadiq Khan, introduced the London Streetspace programme on the 6th May 2020; a comprehensive plan devised to ensure that social distancing remains possible as the city emerges from lockdown by 'repurposing London's streets' to accommodate more pedestrians and cyclists (Transport for London, 2020d).

According to the press release published by London Assembly (2020a), the Streetspace programme has three key focus areas:

- *The rapid construction of a strategic cycling network, using temporary materials, including new routes aimed at reducing crowding on Underground and train lines, and on busy bus corridors.*
- *A complete transformation of local town centres to enable local journeys to be safely walked and cycled where possible. Wider footways on high streets will facilitate a local economic recovery, with people having space to queue for shops as well as enough space for others to safely walk past while socially distancing.*
- *Reducing traffic on residential streets, creating low-traffic neighbourhoods right across London to enable more people to walk and cycle as part of their daily routine, as has happened during lockdown.*

Of particular relevance to this study are the first and third key focus areas which represent a concerted effort by the municipal government to replace a number of London's existing streets—that establish the auto-dependence that plagues our cities—with alternatives that can better support human-scaled vehicles (as proposed by King and Krizek, 2020). Schemes include several different types of hard and soft street-level infrastructure adjustments such as streets closed to vehicles, reduced speed limits, new protected cycleways, restricted through traffic and school streets closed to vehicles (Transport for London, 2020d).

Transport for London (TFL) has been responsible for Streetspace schemes on London's Red Routes—a network of major roads throughout London that make up 5% of the roads but carry 30% of the city's traffic (Transport for London, 2020c). Meanwhile, the programme is also supported by a £45 million fund that allows local authorities to develop their own schemes on non-red routes, independent from TFL (Transport for London, 2020e). Figure 1 displays a map produced by TFL of all Streetspace schemes (as of 31st August 2020).

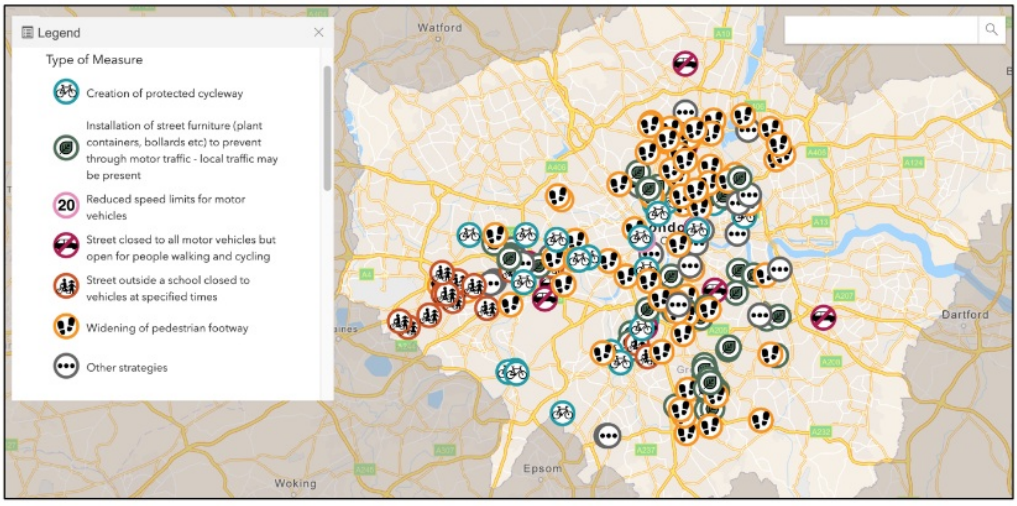


*Figure 1: London Streetspace Programme schemes in London (Source: Sustrans, 2020)*

**The Qualitative Turn**

According to King and Krizek (2020: 5), the transport lever can be measured experientially. Consequently, they argue that effective inquiries should include qualitative methods that 'capture a more complete picture of how residents get around'. This sentiment aligns with van Duppen and Spierings' (2013) analysis of cycling practices—that academic endeavours have largely focused on empirical analyses that dissect modal choice and while such measures are of significant importance, they do not tell the whole story. As Spinney (2009: 818) explains, when the focus is on 'push and pull factors at points A and B, the line *between* A and B' gets ignored. Handy (1996) is equally critical of the hegemony of empirical aggregate studies in cycling (and walking) literature. Unearthing a negative correlation between population density and transport-related energy consumption (see Newman and Kenworthy, 1999), for example, is not commensurate to discerning why cyclists make the decisions that they do. Like King and Krizek (2020), Handy (1996) calls for a re-focus of academic projects that emphasises 'activity-based analyses', 'a qualitative, more holistic and exploratory approach' (Coral, 2019) that examines the behavioural factors underlying the relationships observed in previous empirical analyses.

The 'new mobilities paradigm' (Sheller and Urry, 2006), a multi-disciplinary approach that accounts for the intricacies of the embodied experience of movement (Cresswell, 2010), provides a framework through which these 'activity-based analyses' might be enacted. As such, an increasing number of ethnographic reports of the embodied experience of cycling have emerged in recent years (see van Duppen and Spierings, 2013; Degen and Rose, 2012; Jones, 2005, 2012). This paper will enrich this body of literature by applying it to King and Krizek's (2020) analysis of access gains and subsequent call for investigation into the perceived experience of streets repurposed for the human-scale. Following, van Duppen and Spierings (2013: 234), it will attempt to 'gain insights into the cycled city' by studying 'urban sensescapes'. This is in

contrast to the majority of ethnographic accounts which focus on the affective qualities of the cycling body *independent* of its surroundings. As Sennett (2006 cited in van Duppen and Spierings, 2013:234) describes it, the aim here is to unpack…

> *The [sensory] experience of passing through different territories of the city, both because that act of passage is how we know the city as a whole, and also because planners and architects have such difficulties designing the experience of passage from place to place.*

In this case, the 'territories' described by Sennett (2006) refer to those streets that have been repurposed as part of the London Streetspace Programme to support human-scale mobility.

**Cycling; The Embodied Experience**

Transformations to the built environment have long been understood to alter the everyday experience of urban space (see Lefebvre, 1991; Brenner and Theodore, 2002; Degen, 2008). More recently, there has been a 'sensory revolution' (Howes, 2006), as academic commentators have acknowledged the role that the senses play in these everyday experiences.

Like all modes of transport, cycling as an everyday practice is mediated through the senses, allowing us to see, feel, hear, smell and taste the city and all those elements that make up the urban fabric (van Duppen and Spierings, 2013). As van Duppen and Spierings (2013) point out, these elements can be both 'human'—everything that gives the city life—and 'non-human', the physical environment through which the human elements move and engage. For a cyclist, the 'feel' of the city is predominantly experienced through the tyres, pedals, seat and handlebars of the bike, acting as an 'extended touch' of the rider (Rodaway, 1994).

Traditionally, sensory discourse has been dominated by the visual. Pallasmaa (cited in Jones, 2012:646) attributes this, and the apparent neglect of the non-visual senses, to the notion that 'only the visual can operate fast enough to cope with the demands of contemporary society'. This emphasis on the visual has, however, more recently been problematised; for example, Pallasmaa (2005: 46) calls the eye the 'organ of distance and separation, whereas touch is the sense of nearness, intimacy and affection'. While such critiques might seem overly dismissive of the visual, they have, crucially, worked to throw the non-visual into the spotlight; Degen et al. (2008) emphasises that the sensory experience of the city is 'multimodal', with all the senses reacting to the urban environment as you move through it, creating dynamic sensescapes as you go (Degen, 2010).

Jones (2012) employs the concept of 'sensory discipline' in an attempt to unpack this multi-sensory experience. Defined as the 'attempt to regulate the body and the behaviour of individuals through controlling the sensescape in which they are immersed' (ibid: 647), Jones (2012) argues that commuter cycling offers a far less disciplined sensory experience than the spaces of cars, buses and trains. Part of a world in which sensory stimulation is seen either as a hindrance to consumption or something that should

be commodified as part of the 'experience economy' (Thrift, 2004: 71), commuter cycling is an anomaly. Whilst the inside of a motor vehicle 'cocoons' (Jones, 2012: 647) the rider against unwanted sensory stimuli in what Edensor (2007) calls a 'blandscape', the environment the commuter cyclist navigates is largely undisciplined, exposing the rider to the city's elements—unpleasant smells, wind in your face, loud noises and aggressive vibrations.

Massumi (2002 cited in Jones, 2012: 648) defines our affective capacity as the body's ability to emotionally 'absorb what the world throws at it'. In this sense, our affective capacity can be a barrier to taking part in a particular activity or entering a certain space (Jones, 2012). The 'sensory indiscipline' described above promises an affective intensity beyond the capacity of what many are used to or even desire during a seemingly routine everyday activity and, as such, acts as a barrier to participation for many who might otherwise wish to cycle. This is particularly the case when high speeds are involved (see Jones, 2005), requiring riders to respond to an 'organised chaos' (Pelzer, 2012) created by cars, pedestrians, buses and other cyclists as they weave between the urban fabric and one another. Seamon (1980) describes this performance as a 'place ballet'. These ballets inhibit a rhythm in the rider that is felt through the body (Edensor and Holloway, 2008), the disruption of which can occur when the participants are forced out of their 'flow' by other vehicles (van Duppen and Spierings, 2013: 235). Cyclists adopt a wide variety of tactics to avoid such disruption and maintain their rhythm including exploring 'alternative trajectories' (ibid: 235). This might include simply finding a quieter route, away from heavily trafficked roads or more informal behaviours such as hopping the curb to cut a corner or running a red light. Such tactics help cyclists enact what Brown (2010) calls their 'right to space' while at the same time giving them a 'deviant status' (Jones, 2005).

Importantly, people's experience of urban sensescapes differ from one another. This is because our affective capacities are unique, shaped by our own individual experience of the world (Massumi, 2002). For example, Jones (2012) notes that fear is a prominent barrier to cycling for many, but for others the danger provides an irresistible allure; while some might relish the challenge of navigating heavy traffic, others deplore the idea of commuting in such a hostile environment. This phenomenon is evidenced by Kidder (2006) who, in studying cycling couriers in New York, observed that they often engage in 'edgework' (Lyng, 1990), deliberately seeking out dangerous scenarios to test their own capacity to maintain control when the stakes are at their highest. Conversely, spaces that have been designed to provide a "safe space" for cyclists might in fact prove overly restrictive for more experienced riders (Jones, 2012). Ultimately, there is no singular "cyclist"; a racer travelling at high speeds up the bank of a velodrome track will have a very different sensory experience to that of a commuting parent with a child riding shotgun in a trailing buggy.

These concepts of sensory discipline, affective intensity and rhythm, frame the research questions for this paper. By comparing the sensory experience of cycling along streets repurposed to support the human-

scale (human-scale sensescapes) with those that are dominated by the car (car-dominant sensescapes), this research intends to examine:

a) How the cyclists' rhythm is impacted by the emergence of streets that support the human-scale; and
b) to what extent such street design changes create a more disciplined sensescape and what impact this has on the affective intensity of cycling in London.

By investigating these questions, the paper hopes to draw broader insights into how urban practitioners can help nourish cycling habits and propel the transition towards more cycle-friendly, less auto-dependent cities.

# METHODOLOGY

### Translating the Sensory Through Auto-Ethnography

Traditionally, research on mobility has been dominated by transport geography and 'its associated methodological tool kit'—traffic counts, preference surveys and structured interviews that prioritise the identification of the rational push-pull factors that inform decision making processes (Spinney, 2009; Spinney, 2011: 163).

However, such tools are inadequate when attempting to unearth the less representational, 'more unspeakable' meanings of riding a bike that have become the focus of the new mobilities paradigm (Spinney, 2011); Cresswell (2006) and Law (1999) both attest that such methods are too far removed from the embodied experience of cycling, often producing 'static', distant accounts that fail to capture the transient, fluid and fleeting nature of the activity (Spinney, 2011: 136).

This paper attempts to resolve this challenge by employing a mobile ethnographic method that brings the researcher closer to the subject of study—the everyday sensory experience of cycling—and helps address the locational fluidity that underpins the cycling experience (Jones, 2012; Spinney, 2011; Ricketts Hein et al., 2008).

While a number of studies (see for example van Duppen and Spierings, 2013; Spinney, 2006; Spinney, 2011) have engaged in ethnographic research that seeks to understand the experiences and movements of *others* through 'ride-along' approaches, in the context of London this becomes difficult. Urban cycling, especially in cities such as London where infrastructure is limited and the cyclist makes up just 3% of all daily travel (Deloitte, 2019), is dangerous enough without attempting to converse with someone else as you ride. Furthermore, attempts to "ride together" interrupts the very practice the researcher is seeking to investigate; as rider and researcher attempt to stay within speaking distance as they navigate traffic, regular rhythms and habits are disrupted (Spinney, 2011).

The study of others' cycling sensory experience is even more problematic when you consider the difficulty with which the affectual is communicated. Jones (2012) notes that the sensory is 'fundamentally non-cognitive' and while sensations can be described by those who are experiencing them, this description can never capture the affective nature of the practice—a marathon runner can talk of 'hitting the wall' but until you go through that experience yourself, you cannot truly comprehend what it's like (Jones, 2012). This is a sentiment shared by Durkheim (1976) who argues that actual sensations are 'unspeakable'.

With this in mind and following Jones' (2005) research on the marginalisation of cyclists in Birmingham, this study employs an auto-ethnography. Whilst this does not preclude the research from the difficulties described above, it removes a degree of separation (the participant) between the researcher and the researched. Spinney (2011: 162) notes that the ephemeral nature of the sensory 'does not readily lend itself

to apprehension…through verbal accounts', especially when you consider the fact that people have adapted to practices in very different ways. In Spinney's (2011: 174) own research, he describes great difficulty in attempting to understand the experiences of less experienced riders, explaining that 'my body had forgotten what it was like to ride in London for the first time'. By focusing on my own experiences as a cyclist, I reduce the very real risk of important insights getting lost in translation or imposing my own interpretation of an experience onto a participant (ibid.).

Of course, this method does not come without its own draw backs. As previously mentioned, a diverse set of individuals cycle for many different reasons, and my own experiences, therefore, do not necessarily accurately reflect the experiences of others. However, there is value in the knowledge produced, particularly within this context in which understanding how and why the re-appropriation of streets to support human-scale mobility might impact a cyclist's embodied experience is just as important as what those impacts are.

The auto-ethnography was carried out across a period of a week in July 2020, during which lockdown restrictions had been eased by the UK Government (non-essential shops were re-opened on the 15th June and pubs and restaurants on the 4th July) and the London Streetspace Programme had been in place for more than two months. This time period represented a "sweet spot" for this research project; with people emerging from lockdown and public transport capacity reduced by 15-20% on the tube and 20-25% on buses (Edwards, 2020), traffic congestion quickly increased on London's streets throughout June and July. As such, it became possible to experience both those streets designed to support the car and those repurposed to support the human-scale as part of the London Streetspace Programme in the same journey, ultimately allowing for a more explicit and immediate understanding of how they compare and how that transition impacts the sensory experience.

In total, eight trips or "ride-arounds" were undertaken (see appendices 1 - 8). The routes were chosen to ensure a variety of streets—including busy arterial roads, residential roads and high streets—and a range of London Streetspace Programme interventions were experienced. The schemes included in the research were:

- Broadway Market – Closed to through traffic. Accessible for pedestrians and cyclists only (Hackney Council, 2020c). (Appendices 1 and 4)
- Bishopsgate Corridor – Introducing bus and cycle-only access to prevent other traffic using the A10 and reallocating road space for walking, cycling and public transport passengers only (Transport for London, 2020b). (Appendices 2, 3 and 5)
- Park Lane (North) – Introducing segregated cycle lanes on the northbound carriageway of Park Lane using existing coach parking spaces and part of the carriageway (ibid.). (Appendix 7)
- C8 Upgrade North Phase 1: Chelsea Bridge to Lambeth Bridge – Installed barriers to segregate existing cycle lanes from traffic. Banned left turns from Grosvenor Road onto Chelsea Bridge and Vauxhall Bridge, except for cyclists (ibid.). (Appendix 6)

- Cannon Street, City of London – Improved walking and cycling routes supported by new segregated cycle lanes and pavements. (Appendix 5)
- Gore Road, Hackney – Closed to through traffic at its junction with Lauriston Road to support walking and cycling (Hackney Council, 2020a). (Appendix 4)
- Barnabus Road, Hackney – Closed to through traffic to aid social distancing by supporting walking and cycling (Hackney Council, 2020b). (Appendix 4)
- Prince of Wales Road, Camden – Fast-track of long-term permanent cycle lane scheme using pop-up infrastructure to segregate cycleways from traffic (Camden Council, 2020). (Appendix 8)
- London Bridge – Closed to through traffic apart from buses, taxis and cyclists. (N.B. not part of the Streetspace Programme) (Transport for London, 2020a). (Appendices 2 and 3)

Certain schemes were travelled down on more than one occasion to assess whether a change in context such as the time of day, the weather or even a shift in mood elicits a different sensory experience. Where possible, I incorporated journeys into my daily routine, though this was not always possible. I would describe myself as a confident cyclist who uses a bike for more than 70% of all trips around London. My reasons for choosing to cycle include time-efficiency, environmental awareness, daily exercise and enjoyment.

The ride-arounds were GPS tracked and video-documented with a GoPro Hero 5 action sports camera installed on the underside of the handlebar. As I cycled, I 'thought aloud' (Bicycle User Experience, 2020), recording comments on an iPhone using my earphone's microphone which was strapped to my front.

The videos were used as field notes—a way of 'seeing there' (Latham, 2003) without actually 'being there', allowing for the re-apprehension of fleeting moments previously over-looked (Spinney, 2011). Importantly, video data produces a 'text' that embodies movement in a way that photographs, audio and written texts cannot, straddling both time and space; only through video can the rhythms of a journey be effectively analysed (Edensor, 2010).

The audio clips were transcribed, and the videos annotated, thus becoming a 'bridge' between the embodied cycling experience and language—in order to communicate meaning in an academic context, at some point sensescapes must be articulated linguistically (Spinney, 2011). The transcriptions and video notes were used to create eight separate 'user experience maps' (see appendices 1 - 8) that spatially located relevant audio comments (A), moments of video (V) and post-trip reflections (R).

While it might seem like video auto-ethnography places the visual at the centre of the analysis, the combination of audio and visual (the GoPro also records audio) gives videos the capacity for synaesthesia (MacDougall, 1997), 'the mixing and merging of sensory experience' (Spinney, 20011: 174). This allows the researcher to go beyond just 'seeing there' to 'feeling there' (ibid.).

**Ethics & Risks: Considerations in an Uncertain Time**

This paper is, to some extent, about the risks that cyclists face (or are too fearful to face) on a day-to-day basis. It would, therefore, be difficult to compile an effective ethnographic account without confronting some of these risks, namely the possibility of causing injury to myself or others due to a collision. However, a number of decisions were made to limit the probability of such incidents.

Most importantly, the decision to undertake *auto*-ethnographic ride-arounds instead of ethnographic ride-alongs with other participants was, to some extent, based on controlling the risks involved. As mentioned above, cycling in London is dangerous enough without having to travel side-by-side and maintain a coherent conversation with another, potentially inexperienced, rider. The necessity to exclude others from the research because of associated risks was further accentuated by the need to "social distance" due to the pandemic. Required by government guidelines to stay two metres apart from non-household members at all times, undertaking ride-along interviews would have increased the likelihood of spreading a harmful illness. Other more routine measures such as wearing a helmet at all times, not cycling when intoxicated and wearing a face mask to inhibit the spread of COVID-19, were also taken into account.

Given no external participants were involved, ethical considerations were less extensive, though core matters raised by the Social Research Association (2003) such as 'pursuing objectivity', 'considering conflicting interests' in the outcome of the work and 'maintaining confidence in research' were principles the research strives to uphold.

## ANALYSIS & DISCUSSION

### "Keeping that Flow" in the Human-Scale Sensescape

Cyclists like to get into a rhythm (Wood, 2010; van Duppen and Spierings, 2013; Jones, 2012), moving through the urban fabric without disruption. This desire to build and maintain momentum manifests in the rider's choice of route but also in the way the cyclist tackles that route. In the existing car-dominant sensescape, disruption is difficult to avoid; the roads are too busy, cars and buses take up too much space, and their movements can be erratic. On several occasions during my 'ride-arounds', I expressed frustration at being *"hemmed-in" (see Journey 3 (J3) in appendices)* or having to *"squeeze past" (J3 and J7)* vehicles that had failed to leave enough space for me to move up the inside (between curb and vehicle) or allow me to shift across to the outside. In such instances, where the cyclist is forced to come to a standstill, their momentum, and therefore any rhythm, is broken.

While this might be of minor significance for a car-driver, who can simply extend his foot two centimetres, press on the accelerator and move on, getting a bike *"back up to speed…takes so much effort" (J3)*; when in motion, the bike becomes a 'seamless extension' of the body (Jones, 2005: 822), but as you lose speed, it begins to feel *"clunky" (J3)*. During his own auto-ethnographic research, Jones (2005) expressed a similar sentiment when he found himself in the wrong gear, describing the bike as a 'heavy, unwieldy object hampering my movement'. As observed by Katz (2000: 36 in Thrift, 2004), cyclists employ 'shrewd methods of moving around' in an attempt to maintain rhythm; I too adopted such methods, some 'formal' such as weaving in and out of cars (J6 and J2), using the *"unclaimed space between the two lanes" (J8)* or taking quieter routes such as the towpath (J2), and some informal—in some cases illegal—tactics such as hopping the curb to skip sections of the road (J3, J5 and J7) or running a red light (J2, J3 and J7).

When cycling along sections of the sensescape that had been repurposed to support the human scale, it became easier to sustain a rhythm, particularly on streets that had successfully managed to separate rider and car using pop-up infrastructure, namely the Cannon Street scheme (J5), the Lambeth Bridge-to-Chelsea Bridge scheme (J6) and the Park Lane scheme (J7). Along such stretches, cyclists are able to *"let the wheels go"* (J3), safe in the knowledge that they're not about to get cut up by buses changing lanes without indicating (J7), have cars edge past them uncertainly (J4) or fly over speed bumps (or other traffic calming measures not designed for bikes) (J1 and J2).

Surrounded only by other cyclists, there is a feeling of synchronization that cannot be realized when amongst other vehicle types. When describing the experience of cycling along the temporary cycle lane on Cannon Road (J5), I reflected that… *"you fall into the same tempo as other cyclists, pedals going around at the same rate, trying to stay in their slip-stream. You almost feel like a herd of sheep or something"*. This synchronization has an almost mesmerizing effect and only accentuates the rhythm you've slipped in to. A participant in van

Duppen and Spierings' research (2013) echoed this sentiment of moving as one, noting that, while riding amongst a 'river' of cyclists, he ended up following the 'stream' right through a red light.

On occasion, cycling in these circumstances becomes almost effortless, or even mindless, a notion perhaps best demonstrated by the shift in my hand positioning on the bicycle handlebars: When cycling along streets dominated by cars, my hands (unless it's very quiet) sit firmly on the brake hoods, with my fingers either resting against the brake levers (see Figure 2) or within reaching distance. Though not the most comfortable position—my arms taking most of my upper bodyweight—it means I can brake instantly, disrupting my rhythm but preventing a possible collision. However, when cycling along the repurposed streets of the Streetspace Programme, where sudden and consistent braking was not normally needed, my predominant hand positioning changed. My hands shift from the brake hoods to rest on the crossbar (see Figure 3)—this is more comfortable but requires reaching down to brake which takes time.

*Figure 2: Hand positioning on car-dominant sensescape (J2 at 7m 07s).*

*Figure 3*: *Hand positioning on human-scale sensescape (J3 at 0m 39s).*

However, the human-scale is no guarantee of uninterrupted rhythm. Whilst *"keeping that flow going" (J2)* is all important to the cyclist's comfort (and timekeeping), Degen and Rose (2012) note that it can make people less sensitive to their surroundings, and on several occasions I was jerked out of rhythm by unexpected additions to the sensescape. For example, when cycling along the temporary cycle lane between Lambeth Bridge and Chelsea Bridge (J6), I was forced to brake suddenly to avoid a collision as a van emerged from a driveway into the cycle lane (see Figure 4). *"Lulled into a false sense of security" (J6)*, with my hands settled on the cross-bar rather than the brake hoods, this was a scary moment and a much-needed reminder that the line between the human-scale and car-dominant sensescapes is, for the time being, somewhat blurred.

*Figure 4*: *Van encroaching into cycle-lane, causing me to brake (J6 at 3m 20s).*

Regardless of the presence of vehicles, the sensescape, whether human-scale or car-dominant, is abound with disruptive forces. Poor surface quality, for example, has a *"jarring" (J7)* impact on the rider that often forces an irregular response such as standing up off the saddle to limit the body's contact with the bike (J5 and J1). When riding along the temporary cycle lane on Prince of Wales Road (J8), the bumpy surface was so uncomfortable that I thought it less disruptive and even *"…more enjoyable to just cycle in the middle of the road amongst the cars" (J8).*

Furthermore, whilst it might prove difficult to maintain your rhythm when sharing roads with cars and buses, it is equally difficult to do so when sharing streets with pedestrians. Like cars, pedestrians must be avoided, and like cars, their movements often come into conflict with your own. Referring to Broadway Market (J1 and J4)—access to which had been limited to just pedestrians and cyclists—I stated that *"it's actually a bit of a nightmare having to swerve to avoid people" (J1)*, at one point a *"woman with a pram stopped right in the middle of the street"* as I sped towards her (J1), causing me to brake sharply (see Figure 5). On several occasions—and resonating with Pelzer (2012)—I expressed frustration at the unpredictability of pedestrian movements, describing them as *"chaotic" (J1 and J8)* and even suggesting that *"…often it's the pedestrians I worry about most" (J3).* Incidentally, along Broadway Market, my fingers were firmly and permanently planted on the brake levers, engaged in a repetitive pumping motion as they sought to guide my body through the chaos.

*Figure 5*: *Woman stopped in the street unaware of my approach (J1 at 8m 18s).*

This frustration alludes to an unfamiliarity navigating the human-scale sensescape. Though cars present a far more formidable partner to share streets with, I have, over time, developed and refined an assortment of tactics based on 'memories collected during previous commutes' (van Duppen and Spierings, 2013: 235) that allow me to safely navigate the system of automobility; knowing when it's safe to weave in and out of traffic and when it's best to stay put, for example, has *"become second nature really" (J2).* However, when experiencing streets that have been re-designed to accommodate both cyclists and pedestrians, I have few memories to draw upon. As such, the well-rehearsed 'place ballet' (Seamon, 1980) between cyclists and drivers is replaced with a dysfunctional performance executed by dancers whom have never met before. During my ride-arounds, attempts to build a new repertoire of tactics or as Jensen (2010) describes them, 'negotiations in motion', were in large part futile: Deft hand signals to communicate my intentions with drivers behind me (J8) were replaced with last-second yells of warning (J1), and well-practiced, sharp glances over the shoulder to check my blind spot (J5) became frantic and panicked attempts to catch the eye of oncoming walkers (J1 and J3).

The disruption of rhythm was also evident when having to transition from one type of sensescape to the other, human-scale to car-dominant or vice versa. Perhaps representative of the speed at which Streetspace Programme schemes were incorporated into the urban fabric—without consultation and using temporary materials—I repeatedly (J4, J6 and J7) found it unclear what part of the street I should be using, the temporary infrastructure that separates rider and driver disappearing without warning. Twice I commented aloud, *"[I'm] not sure where we're meant to go here" (J6 and J7)* when exiting one of the schemes. In such instances, I had a choice of two responses: First, stop my bike to properly assess my surroundings, breaking my rhythm completely in the process; or second, utilise informal tactics to maintain some semblance of rhythm

whilst at the same time trying to avoid a potentially dangerous situation. Given my persistent reluctance to stop my bike at any time—*"[I] really hate having to get off my bike…I try and stay on for as long as possible, it's almost a challenge, to see how far you can go without getting off" (J2)*—I opted for the second option. When, for example, coming to the end of the Park Lane scheme (J7) and the temporary cycle lane seemingly melted into a busy roundabout, rather than come to a halt or attempt to merge with unexpecting cars, I hopped on to the pavement and used the pedestrian crossing network to make my way across. A similar tactic was used at the end of J7, though on that occasion I was eventually forced to come to a stop.

**Disciplining the Cycling Experience**

For Jones (2012), the cycling experience is underpinned by its 'undisciplined' exposure to sensory stimuli, 'providing a rich, though not necessarily positive, sensescape' for riders (ibid: 655). There is no doubt that my experiences when cycling along car-dominant sensescapes reflects this notion.

Compared to the insulated nature of the car, cycling on congested roads places the rider in a far 'less managed sensory realm' (ibid: 651). When waiting at the red light on a fast-moving B-road (J4), I commented: *"With cars going in excess of 40mph, [you] really feel out of place on roads like this, especially if you're stopped and they're speeding past. You don't just see them and hear them; you can feel the ground shake [as they go past]."*

For drivers and public transport riders, such intense haptic stimulation is only realised in the event of a collision, but for an urban cyclist, this multi-sensory assault is an every-minute occurrence. Again, whilst waiting for a red light to turn green alongside an assortment of other cyclists, cars and a moped, I compared the feeling of anticipation to *"the start of a grand prix…[as] the cyclists [prepare to] shoot off to get in front of the cars" (J3)* (see Figure 6). While this might be an over-exaggeration on my part, it alludes to the sense of danger that cyclists feel in such situations; as engines start to rev, you feel an urge to get out in front or risk getting squashed between two cars. Like Formula 1, most are put off by such acute sensory stimulation, others decide it is worth it for the other benefits cycling brings such as cost and environmental integrity, and still fewer embrace it and even seek it out (see Kidder, 2006 on cycling couriers and 'edgework').

*Figure 6: Cyclists line up, ready to beat the cars off the start line (J3 at 8m 34s).*

Your senses, under constant bombardment, become a finely tuned alert system, warning you of dangerous or unpleasant situations within close proximity to yourself: My eyes scan the street ahead, *"constantly on the move, checking every single road" (J3)*; meanwhile, my ears probe the street behind—*"[I] immediately have to shift to the side of the road as I hear a 4x4 roar up behind me" (J4)*; and lastly, my hands and backside forewarn me of quickly deteriorating road surfaces—*"the whole road, it's really, really badly paved and you can feel it through the bike" (J1)*—telling me when I should stand-up off the saddle to limit the impact of bumps and vibrations on my body. In most instances, like those above, sensory stimuli give the rider the opportunity to react, ensuring their affective capacity is not exceeded; however, on occasion, sensory overload was unavoidable: *"That's the rubbish van and that is quite a stench! Don't think you get that in the car" (J3).*

Given the role of other vehicles in the creation of the sensory indiscipline referred to by Jones (2012), it follows that by removing said vehicles, the sensescape undergoes a process of re-disciplining. As such, by repurposing the streets to support just human-scale modes of transport, the sensory intensity is somewhat dampened.

Though a fairly crude measure, this is perhaps best demonstrated by the significant reduction in audio commentary when cycling along streets re-designed as part of the London Streetspace Programme compared with those that exist to support cars. Without the barrage of sensory activity created by cars, I was left with little to react to and found myself searching for things to talk about, often repeating thing's I'd already commented upon or forcing remarks. In the absence of any other sensory stimulation, I commented on the quality of the road surface ten times. In fact, the only Streetspace Programme schemes on which I didn't complain about potholes (J2 and J3), speedbumps (J4) or it being *"bumpy" (J6 and J7)* and

*"uncomfortable" (J6 and J8)* were Broadway Market (J1) and Cannon Street (J5). This can likely be attributed to the sensory distraction created by the presence of pedestrians: *"There's no demarcation [on the road] between pedestrians and cyclists whatsoever…Makes it difficult to know who can go where" (J1).*

In disciplining the sensory experience, streets repurposed to support the human-scale come to reflect more closely the sensescapes that users of other modes of transport—drivers and public transport users—experience; what Edensor (2007) refers to as 'blandscapes'. I responded to this more heavily regulated sensory environment by seeking out other ways to increase the affective intensity of my journey. As Jones (2012) and van Duppen and Spierings (2013) rightly argue, chaotic junctions do not lend themselves to 'thinking' or 'imaginative play', but, immersed in a less intense sensescape, my mind and senses were freed to engage in cognitive thought beyond how to get from A to B safely. Often, this manifested in a greater awareness of my surroundings. For example, when cycling along the Broadgate Corridor (J5), I commented *"[It's] amazing cycling through central London like this. You realise the scale of the city...When the roads are busier you don't get the opportunity to take note of your surroundings"*; and when cycling along the Lambeth Bridge to Chelsea Bridge cycleway (J6), I slowed down especially to take in the vista of Battersea Power Station across the River Thames. This 'distraction of the city' (ibid.) is also not just confined to the visual either; along Broadway Market (J1) I noted being able to hear the *"hum of voices"* instead of the usual aggressive rumble of engines.

Accordingly, those streets re-designed to support the human-scale permit a level of 'intimacy' and 'sociability' with the city and its citizens that's not possible when navigating the car-dominant sensescape (Jones, 2012). In doing so, the human-scale sensescape resonates with the experience of cycling along other car-free routes such as the towpath (J2)—*"it's pretty sketchy…but I enjoy cycling along here. It's worth it for the view."*—and across London Fields (J1)—*"[I] can actually smell the freshly cut grass in London Fields which is nice!".*

And when my surroundings did not warrant further attention, taking in the city was substituted with other methods of acquiring a greater level of affective intensity. For example, on car-dominant streets, I don't feel comfortable cycling with headphones in because *"your hearing is so important when you cycle. That right ear is always telling you how close the traffic is" (J2).* However, when cycling along human-scale streets it did cross my mind that you *"could really comfortably cycle listening to music or even put a podcast on." (J4)*, something I later experimented with on the Lambeth Bridge to Chelsea Bridge (J6) and Park Lane schemes (J7).

While the disciplined sensescape, more often than not, created a more convivial riding experience, in some instances there was an overwhelming sense of restriction: *"…Really bumpy because of the loose pavement stones. It's so jarring but there's no escape" (J7).* In particular, the temporary bollards (J5, J6, J7and J8) used to ensure physical separation between the human-scale sensescape and the car-dominant sensescape created frustration, forced to follow the path set out for me whether I wanted to or not: *"It does feel quite narrow here so overtaking other cyclists might be a bit of a tight squeeze." (J6).*

These experiences allude to a sensescape that has, to some extent, been over-disciplined. As Jones (2012) emphasised, while there are those that find the car-dominant sensescape overwhelming, others 'relish the challenge' afforded by the uncensored environment, and though my capacity for affective intensity does not quite reach the heights of the couriers described by Kidder (2006), the *"freedom" (J2)* and *"flexibility" (J5)* to *"weave in and out"* of traffic (J2), pass cars as they sit in congestion (J4) or "*hop onto the pavement to skip [a gridlocked] section of road" (J5)* (see Figure 7) bestow a thrill that is an important part of why I choose to cycle in London. During these moments of over-discipline, I was forced to seek out that sensory thrill in other ways. For example, during Journey 6 (Lambeth Bridge to Chelsea Bridge), I replaced the sensory stimulation generated by proximity to motorised vehicles with the sensory intensity that comes with greater speed (Virilio, 1986): *"Really getting some speed up now which is fun…I don't even have my hands on the brakes!"(J6).* With the wind in my face, my legs starting to burn and adrenaline pumping, there is a multi-sensory cascade that pushes to the limit of my affective capacity. Elsewhere (J4), bored by the car-free over-disciplined sensescape, I took the opportunity to cycle down the access-only street (Gore Road) without hands on my handlebars. Such activities, though not strictly illegal, grant the cyclist deviant status (Jones, 2005) similar to that of the skateboarder, another group traditionally demonised for their misuse of the urban environment. Like the skateboarder, I thrive off of the disapproving looks from onlookers as I treat the street as a space for play, rather than a space for travel (as it was intended). Unlike the skateboarder however, my deviance is fleeting, quickly masked by the 'facade of sustainable transport respectability' that comes with cycling (ibid.).


Figure 7*: Using pedestrian walkway to skip out gridlocked section of road (J5 at 7m 44s).*

## CONCLUSIONS

By repurposing streets to support human-scale modes of transport, there is no denying that cyclists are afforded a more convivial sensory experience. In the absence of cars, riders are sheltered from loud noises, pollution and possible risk of injury. A more disciplined sensescape, the intense demands on the affective capacity of the rider are diminished at the human-scale, giving cyclists the opportunity to take in the city, maintain their rhythm and stay in sync with their bicycle and those around them.

Jones (2012: 655) posits commuter cycling as one of the few 'mundane everyday activities' that allows for intense sensory stimulation, but the disciplining of the sensescape calls this label into question; instead, by rolling-out streets that support the human-scale more widely, cycling could come to replicate the 'cocooning effect' Jones (2012) uses to define the experience of driving—protected from the unpleasant sensory stimuli the city emanates. In describing such environments as 'blandscapes', Edensor (2007) and Jones (2012) paint them in a negative light—places of boredom and monotony. If however, the ultimate goal is to get as many people cycling as possible, then this is a detrimental attitude to have. Jones (2012) himself acknowledges that the system of automobility offers a sensory and affective intensity beyond the capacity of most. It follows, therefore, that bringing the sensescape of the rider closer to that of the driver might see more people decide to take up cycling.

### Beyond the Human-Scale

In their paper on reforming streets to support access for human-scale vehicles, King and Krizek (2020) provide little guidance on what these "reforms" might look like, instead calling on the research community to investigate. Though the purpose of this paper has not been to critique the London Streetspace Programme, instead using it as an urban living lab to better understand how the sensory experience of the cyclist changes when riding along streets that have been repurposed to support the human-scale, the findings confer a number of important lessons for urban and transport planners, policy makers and academics looking to 'nourish' cycling habits (Schwanen et al., 2012) as we emerge from the pandemic and beyond.

Jones (2005: 816) argues that cycling exists 'between the two predominant means of moving around cities, by car and on foot'. In this 'vehicular-pedestrian binary', cyclists have been othered; labelled 'deviant' when cycling on pavements, they are forced to jostle for space amongst the cars in what is an unwinnable and dangerous arm-wrestle. In advocating for streets that support the human-scale, King and Krizek (2020) are in a sense arguing for a shift that sees cyclists transplanted, from sharing streets with cars to sharing streets with pedestrians. As the findings highlight, this shift undeniably creates a safer, more enjoyable riding experience, but it fails to uproot the vehicular-pedestrian binary and the marginalisation that cyclists contend with on a day-to-day basis. When, for example, I was cycling down Broadway Market, attempting to maintain my rhythm amongst seemingly oblivious pedestrians, I noted that *"you go from feeling out of place*

*amongst cars, to feeling out of place amongst pedestrians" (J4).* Even on designated temporary cycle-lanes, where cyclists supposedly have priority you *"[I] have to keep an eye out for pedestrians stepping out into the road who don't seem to recognise that I'm here" (J5).*

To some extent, this feeling of marginalisation even at the human scale can be attributed to a lack of familiarity between pedestrian and cyclist; not used to sharing space with one another, they are yet to develop a shared and well-recognised repertoire of 'negotiations in motion' (Jensen, 2010)—'gestures, gazes, body movements' (van Duppen and Spierings, 2013: 235). Were human-scale streets to become more prevalent, both cyclists and pedestrians would learn how to co-exist, a new bank of memories providing an internal instruction manual on how to navigate one another efficiently and safely. Urban practitioners should also think about how such 'negotiations in motion' (Jensen, 2010) might be acquired inorganically. One method might be to incorporate them into practical and theoretical courses on how to cycle in cities such as Transport for London's Cycle Skills course that was launched in July 2020 (London Assembly, 2020b).

However, for cycling to become a dominant mode of transport, the vehicular-pedestrian binary must be dismantled, and cyclists provided with their *own* spaces carved out of the urban fabric. Urban and transport planners must go beyond the human-scale and look to provide streets that support the cyclist-scale. A future line of enquiry might be to investigate what streets that support the cyclist-scale look like beyond the basic separation of rider and driver/pedestrian—how they can help cyclists maintain their rhythm and how they can foster a sensescape that is welcoming to cyclists of all levels and attitudes. Based on the findings from this paper, I can offer up some starting points: First, points of intersection, where cyclists move from one type of sensescape to another, need to be carefully stitched together to ensure a seamless transition. Ideally, such junctures would be kept to a minimum so that cyclists can navigate the city without ever coming into contact with cars or pedestrians; nevertheless, when such occasions do arise, there should be clear demarcations that allow cyclists to re-join without disrupting their rhythm or putting them at risk. Second, the cyclist-scale should be permeable to allow those in search of a more intense affective experience the flexibility to move between sensescapes. Though disciplining the sensescape is important in helping increasing uptake, it is also important to ensure that those who relish the thrill and enjoy the freedom of cycling amongst cars can continue to do so. Jones (2012) concludes his work by noting how 'pervasive' disciplined sensescapes have become, commuter cycling being the last remaining bastion of resistance outside of the 'experience economy' (Thrift, 2004). For many, myself included, it is vital that commuter cycling retains this deviant status.

Looking forward, urban practitioners will also need to think about where other human-scale vehicles fit in. While dismantling the vehicular-pedestrian binary is imperative, breaking it apart just to build it back up again without taking into account the growing number of small-scale E-vehicles—scooters, bicycles and even mini-cars (see the Citroën Ami)—is unconstructive. Cycling is just a small cog in the future of urban

mobility but the winding journey that has ensued to have its place recognised by society will provide a valuable lesson when it comes to incorporating new smaller-scale modes of transport.

**Methodological Reflections and Limitations**

In opting to undertake an auto-ethnography, the findings of the research have a clear limitation—failing to account for the diversity amongst cyclists, not only in terms of experience level but also in terms of age, gender, race, sexuality and much more. Massumi (2002) notes that our affective capacities are shaped by our individual experiences of the world, as such people cope with the same sensescapes in very different ways. It follows, therefore that my findings are not necessarily applicable to all and future research should look to broaden the scope of this line of inquiry.

Despite this, auto-ethnography should continue to be seen as a valuable tool, not just amongst researchers but urban planners who are interested in a more holistic and exploratory approach to community engagement. Not only would it promote engagement in the planning process by having community members actively participate in data collection, but, as discussed in the methodology section of this paper, it places the participant closer to the object of investigation, allowing him/her/them to account for their thoughts and feelings as they happen. This is in stark contrast to traditional community engagement methods such as questionnaires, focus groups and workshops where participants either arrive with preconceived notions of what they might say or are forced to draw upon distant memories of previous experiences.

As previously established, the combination of audio and video allows the participant (or planner/external researcher) to 'feel there' (Spinney, 2011) when later reflecting on the experience. With specific regard to cycling and the embodied experience, future attempts to engage in auto-ethnography (if resources allow it) would benefit from multiple camera angles that capture not only the first-person view but a third-person view that allows for greater scrutiny of the body and its movements. In the case of this research paper, these additional camera angles would have provided greater insight into my own 'negotiations in motion' (Jensen, 2010) which, in this case, were largely established by 'thinking aloud' (Bicycle User Experience, 2020). Having a second rider follow at a distance (with a second camera) would achieve this, while a third camera placed on the handlebars facing upwards would be able to capture the facial expressions of the subject.

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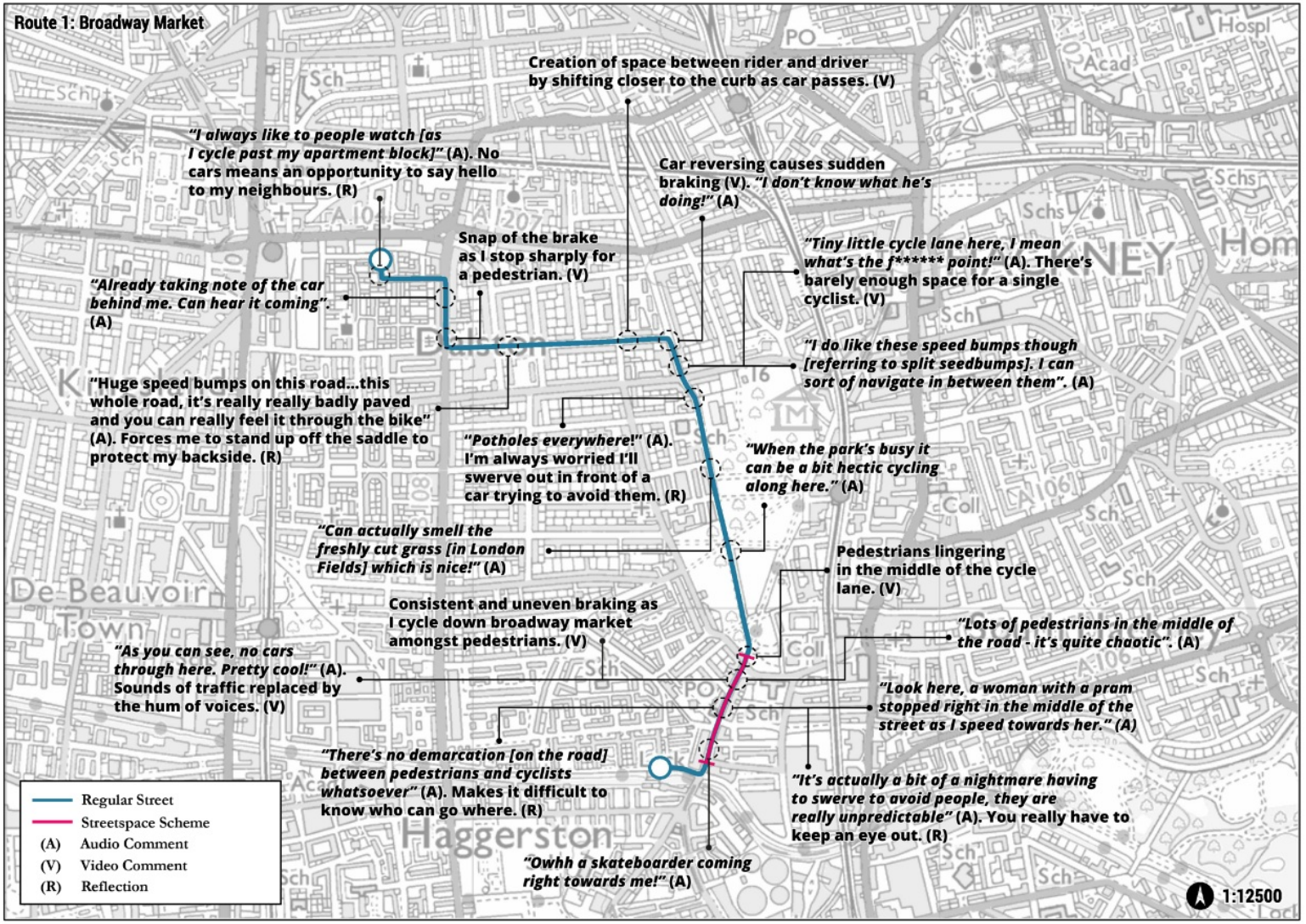
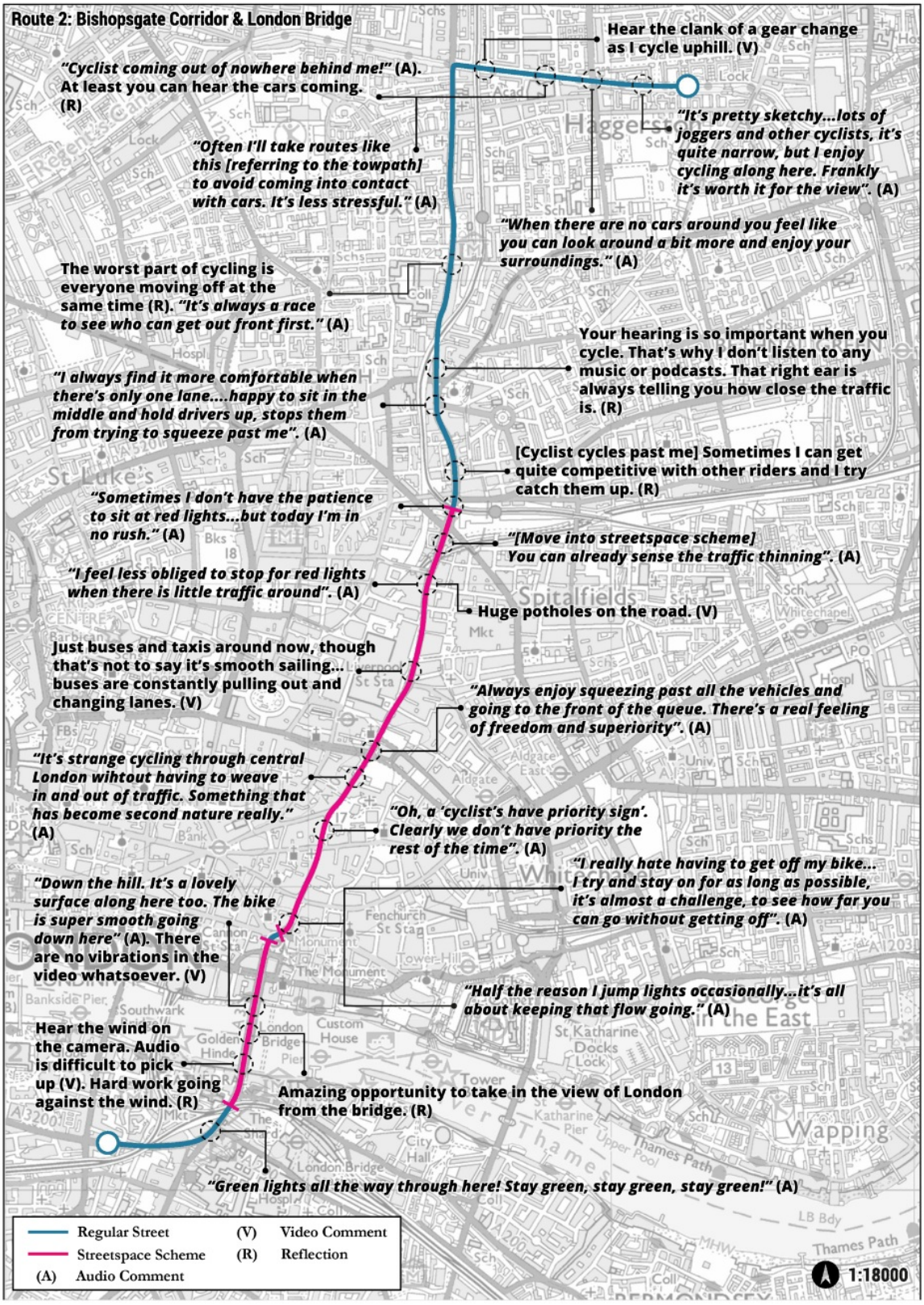
**APPENDICES (OVERLEAF)**

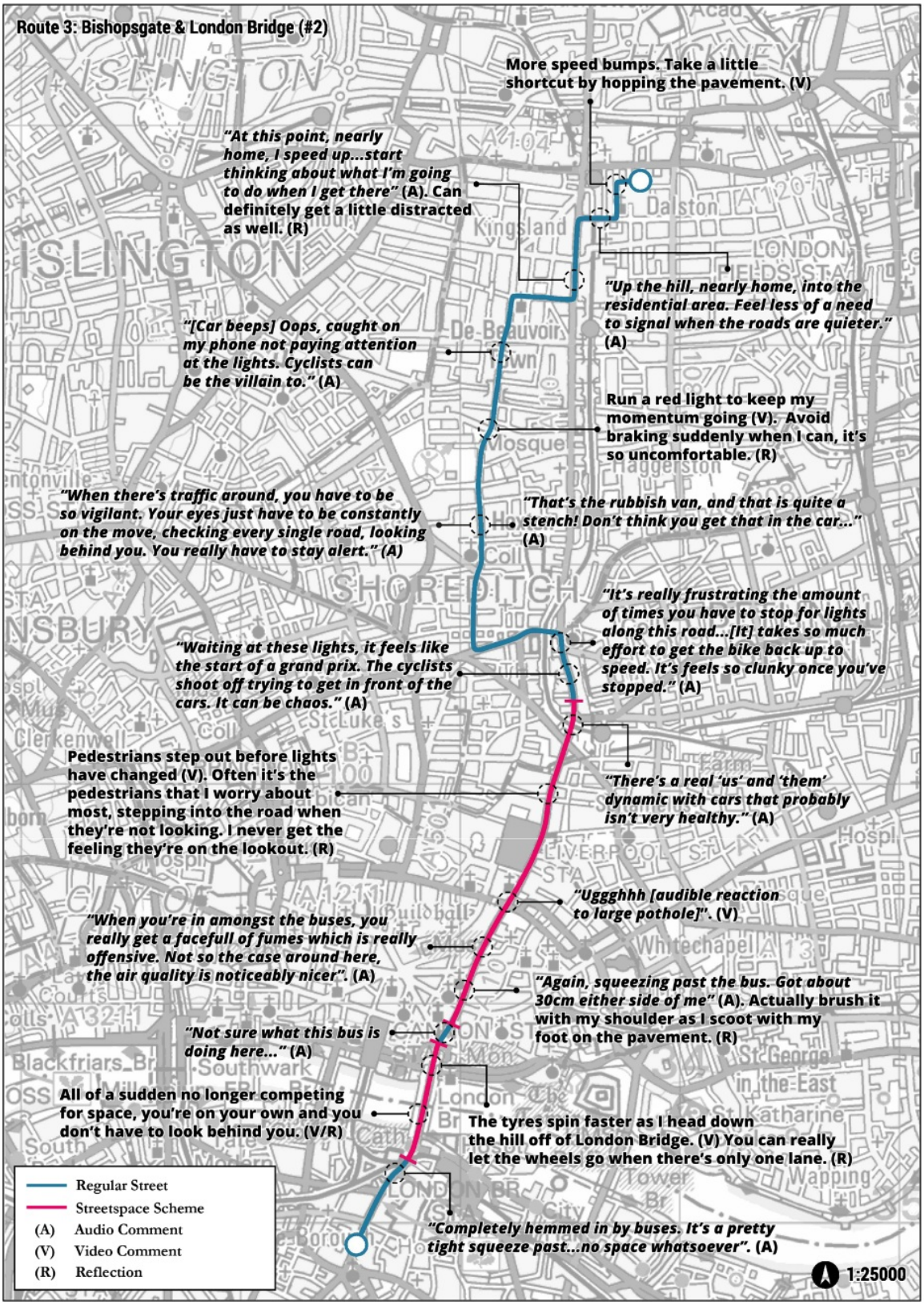
**Appendix 1: Journey 1 (J1)** – Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



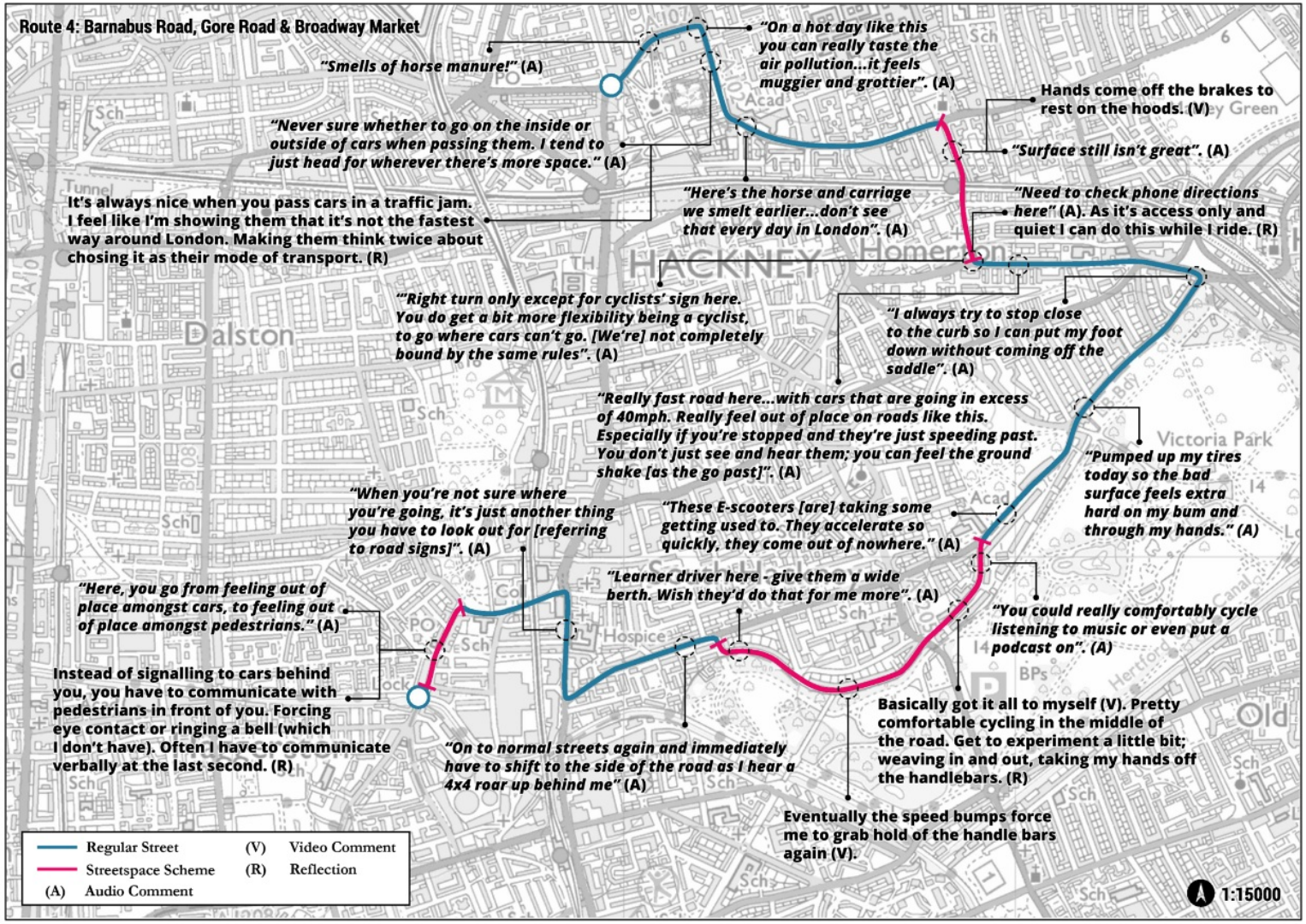
**Appendix 2: Journey 2 (J2)** - Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



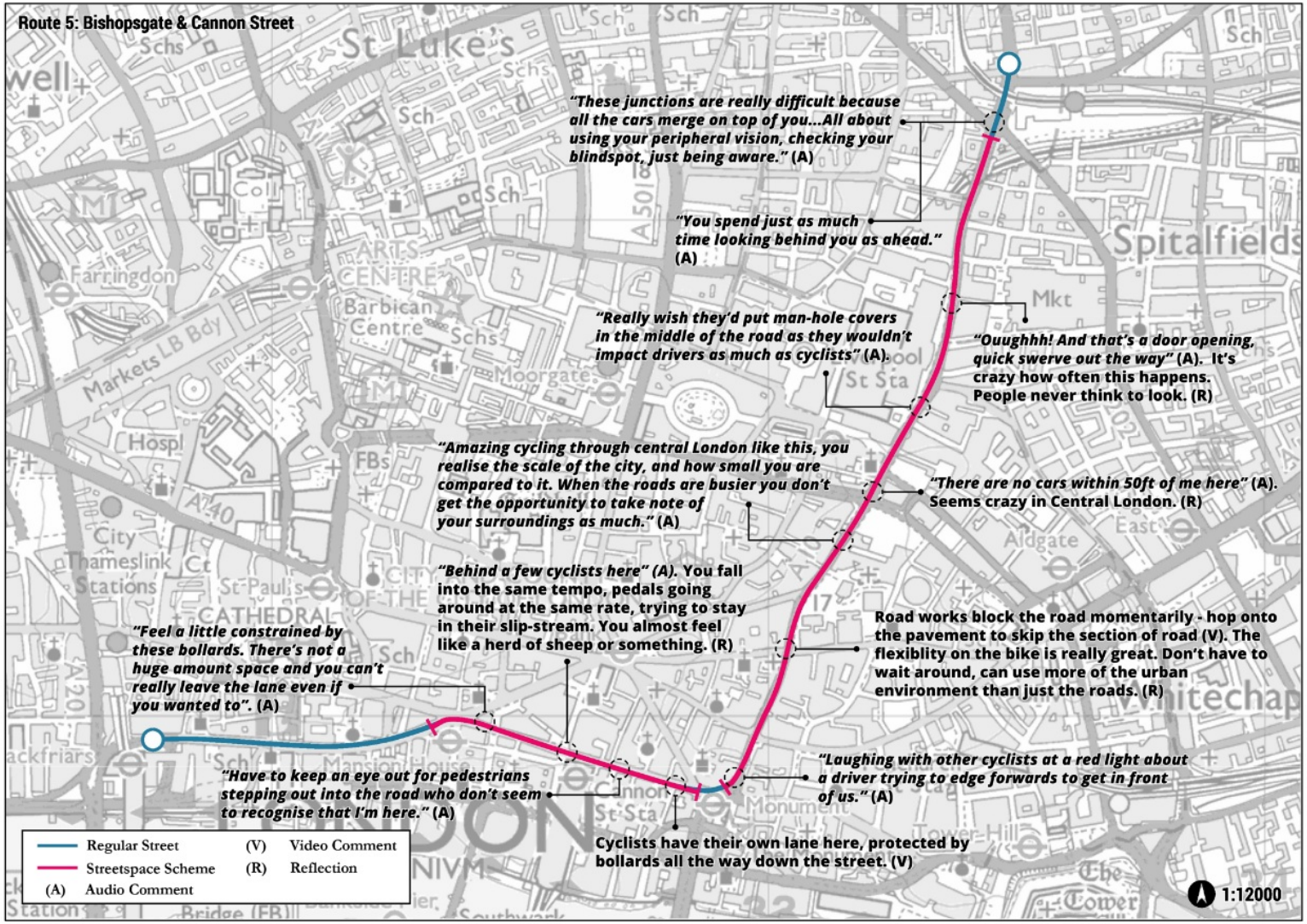
**Appendix 3: Journey 3 (J3)** - Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



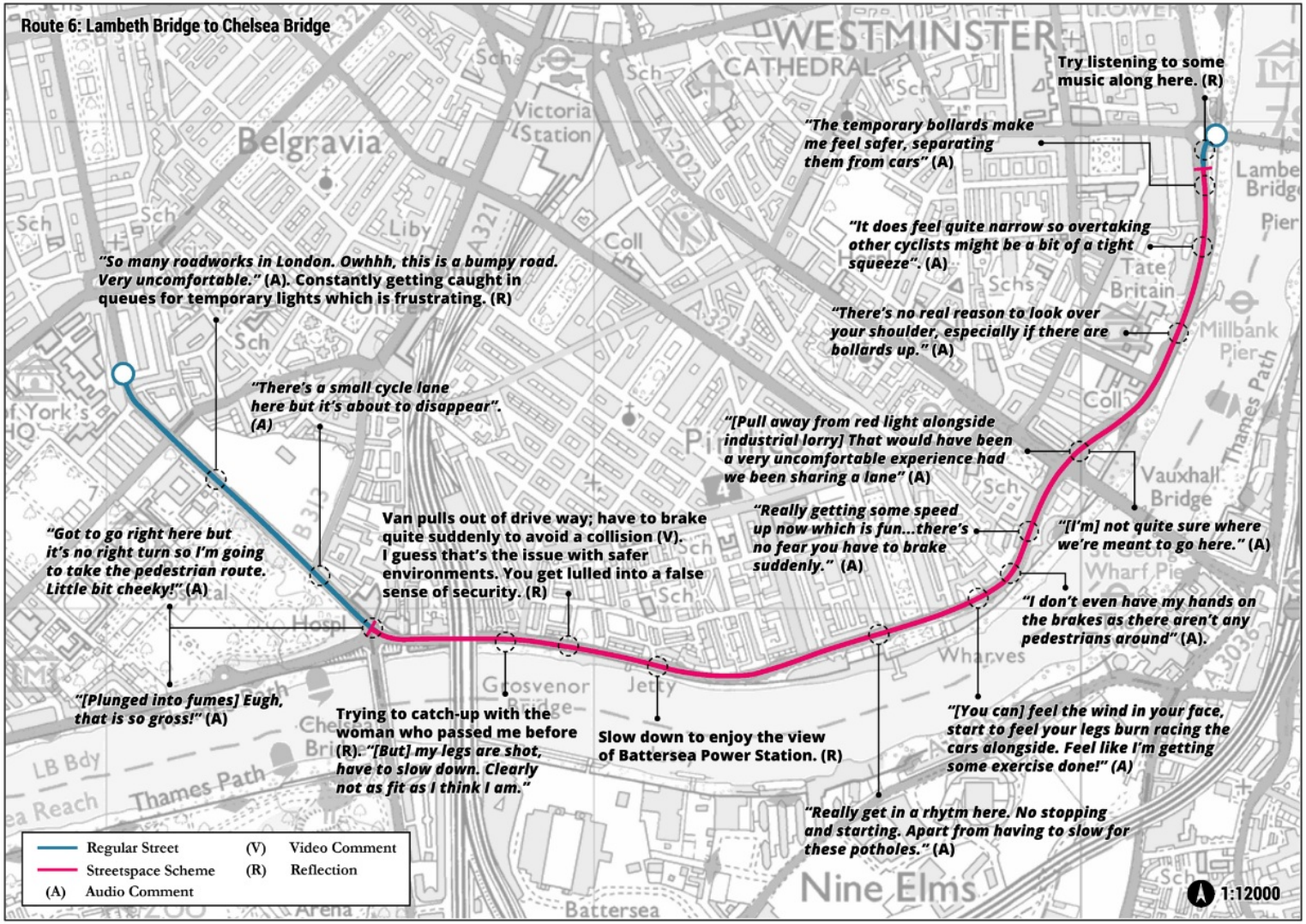
**Appendix 4: Journey 4 (J4)** - Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



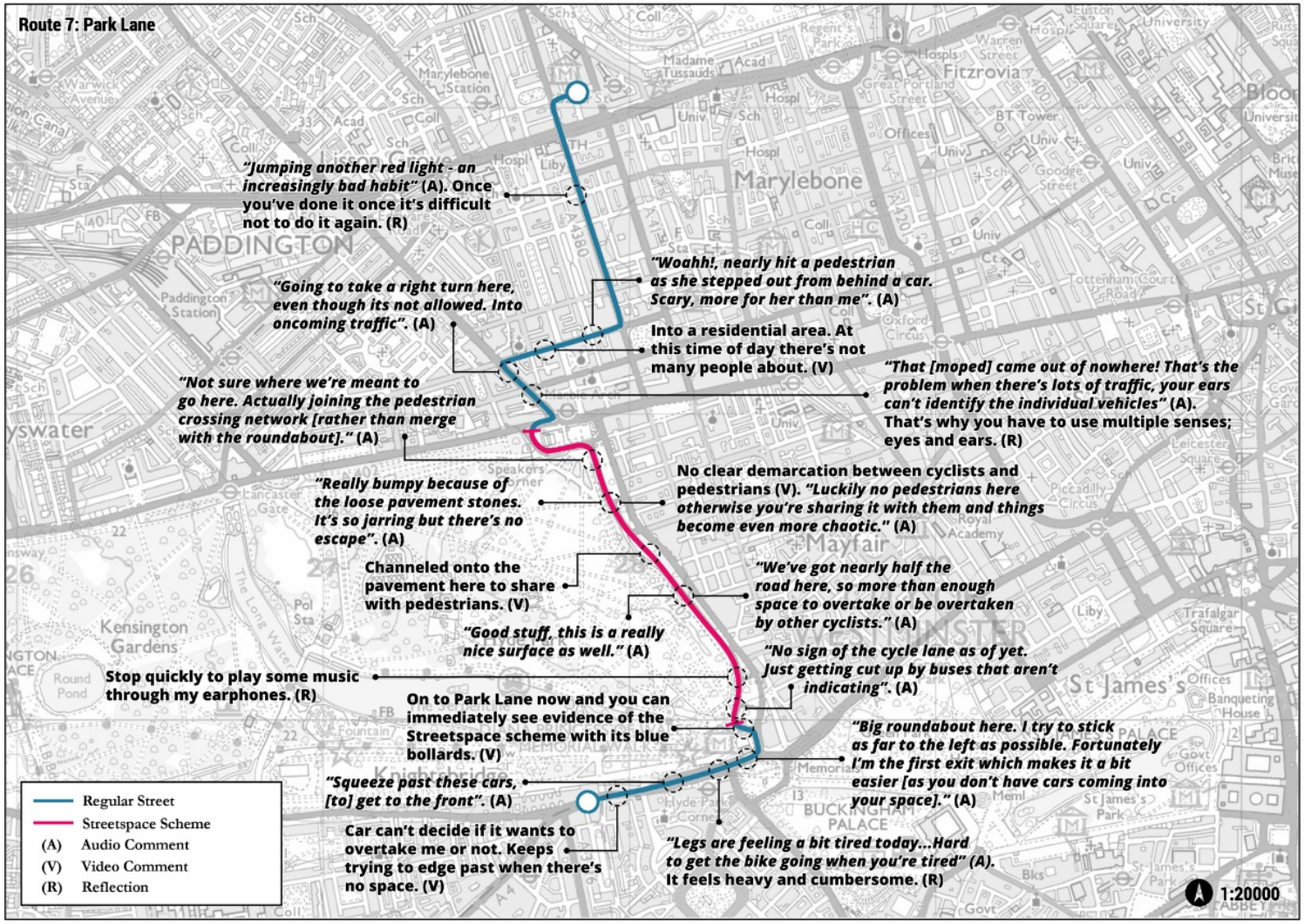
**Appendix 5: Journey 5 (J5)** - Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



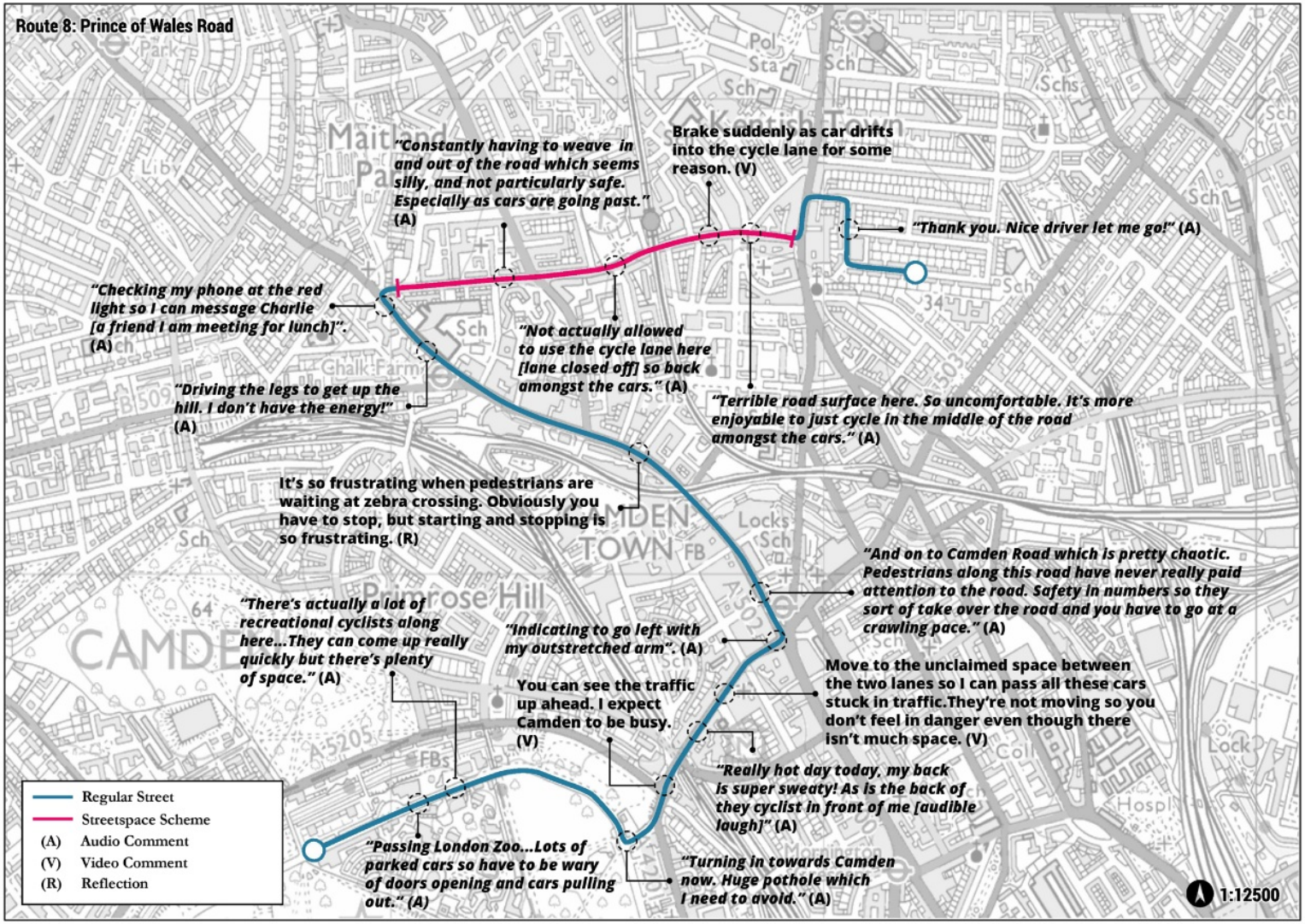
**Appendix 6: Journey 6 (J6)** - Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



**Appendix 7: Journey 7 (J7)** - Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



**Appendix 8: Journey 8 (J8)** - Map design by Max Coral, map data © Ordnance Survey (2020) via Digimap



# CYCLING THROUGH COVID-19 EXPLORING HUMAN-SCALE SENSESCAPES

GRADEMARK REPORT

FINAL GRADE

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GENERAL COMMENTS

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