BPLN0039_SWMZ2

by Hazeerah Hashim

Submission date: 05-Sep-2022 12:58PM (UTC+0100) Submission ID: 185706324 File name: BPLN0039_SWMZ2_3828312_1177244618.pdf (4.8M) Word count: 15845 Character count: 86056

University College London

Faculty of the Built Environment

The Bartlett School of Planning

Usage and Perception of Pedestrian Streets in London

SWMZ2

Date: 5 September 2022

	Word count
Main body of dissertation	10,536
Appendices	1132

Being a dissertation submitted to the faculty of The Built Environment as part of the requirements for the award of *MSc Transport and City 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.

Abstract

As cities become increasingly aware of the ills that car traffic brings upon them, calls to take back spaces from cars and pedestrianize them become increasingly common as a means to bring back life to the streets. There are already several pedestrian-only spaces in London. This study seeks to gain new insights on the usage and perception of these pedestrianized streets to understand what makes attractive pedestrian streets that encourage social activities to take place. Observations and semistructured interviews were carried out amongst the street users at Leicester Square, South Bank and the Barbican to help unpack how different people use and perceive different streets. Analysis reveals that many different types of social activities take place in the streets which can be categorized into three: passive, fleeting and enduring sociability. Findings also show that some social activities attract certain types of pedestrians. Whilst people may perceive these spaces as safe, comfortable, accessible and welcomed, the reasons behind these perceptions varies greatly, dependent upon street users' experiences, knowledge and expectations of the streets. The in-depth interviews uncovered a list of street characteristics that made the street attractive to the users, which includes maintaining its link function, creating safe and comfortable spaces for everyone, providing things to see and listen to, and incorporating elements of play and nature. Findings have the potential to play a valuable role in designing for future pedestrianisation schemes that aim to encourage social life on the streets.

Acknowledgements

I would like to express my thanks to my supervisor and course director Professor Robin Hickman for providing invaluable insights and guidance on how best to develop and explore this topic. Further, I would like to thank all who were willing to be involved in the interview process and share with me their personal experiences and opinions. Finally, I would like to thank everyone who supported me during the research process.

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1.0 Introduction

"A great street should help make community... A great street should be a most desirable place to be, to spend time, to live, to play, to work... Streets are settings for activities that bring people together." – Allan Jacobs (1993)

Streets are more than just conduits for movement – it is arguably an important setting for social activities to take place (Mehta, 2013). Social activities that take place on the streets serve as building blocks that can help develop the social capital of the society. As such, it is important to understand how streets can be designed to support these social activities.

The overarching aim of the Mayor's Transport Strategy is to reduce the dependency on cars and to increase the active, efficient and sustainable mode share trips in London (TfL, 2021). This includes efforts on taking more space away from cars for pedestrian use as part of their efforts to encourage walking as a sustainable mode share. Increasingly, pedestrianisation of streets are being proposed to achieve this.

London already has several pedestrian-only spaces scattered around the city. Many can be seen as successful public spaces with many patrons and users. Pedestrian streets have the potential to be optimal social settings for the community. The study aims to take an in-depth, qualitative approach to understand how the public uses and perceives pedestrianized streets in London, assess critically the differences between different users, and identify what makes sociable pedestrian streets.

This aim is explored through the following four questions:

- How does social activities on pedestrian streets differ between passive, fleeting and enduring sociability?
- 2. How do pedestrian and other street users use the pedestrian streets?
- 3. How do different users perceive the pedestrian streets?
- 4. What are the characteristics of a sociable pedestrian streets?

To do this, this study will explore the scholarly and public discourse on the streets and its functions, as well as its evolution in cities in Section 2. Then, public life studies and interviews will be conducted on the street users at three of London's pedestrianised spaces as part of data collection method detailed in Section 3. Through these data, this study will examine, analyse and discuss critically the usage and perceptions of the streets by different users in Section 4. From the discussion, this study will summarize a set of criteria that makes attractive and sociable pedestrian streets.

2.0 Literature

Defining Streets

Despite the ubiquity of the public space that is the streets, there is a vagueness in what the term really means. It is generally accepted that streets are routes that help users get from point "A" to "B", but the types of streets that exist can be quite different. This is reflected in the many definitions of streets that exist. Rapoport (1987) defined the street as "the more or less narrow linear space lined by buildings found in settlements and used for circulation and, sometimes, other activities", while Jukes (1991) defined it as "a central metropolitan thoroughfare, an arena where strangers encounter one another, come face to face with the size and heterogeneity of urban life". Many others have also attempted to define the term, but the two definitions presented succinctly encapsulates the conflict of identity of the streets – the former emphasizes the circulation function of the street, while the latter suggests streets as social spaces, rather than just channels for movement. This then leads to different understandings on what are great streets. Ask a traffic engineer and answers will most probably centre around the efficiency of streets that help "make community" (Jacobs, 1993) to streets that create a healthy society (TfL, 2021). These understandings reflect the different roles that streets as public spaces can play in shaping the society.

Evolution of Streets - decline of street life

The different definitions of the streets can be traced to the fact that streets have always been "scenes of conflict" (Appleyard, 1981, p.9) with its "open and easily changeable nature" (ibid.). a clear example of the above conflicts could be observed in the evolution of the functions that streets have played over the course of civilization. Since ancient times, streets have played critical roles in cities, connecting people, spaces and goods, contributing to cultural, social, economic and political functions of cities. However, the growth of motorised vehicles and influx of cars into the cities led to conflicts between the various street functions and users. This resulted in poor integration of the multiple functions of streets, reducing them as mere links in a road network (UN-Habitat, 2013). Additionally, as cars continue its conquest of the city, cities expanded beyond the dense structure of traditional cities, resulting in more space between buildings. The dominance of cars in the cityscape has resulted in life being squeezed out of the streets.

Return of Life – making streets great again

People like Jane Jacobs, Jan Gehl and William H. Whyte criticized that with the increasing dominance of cars, cities are being built on an inhuman scale and that life has been forgotten in the planning process (Gehl, 2013). With almost 30% of the land in London allocated to streets (UN-Habitat, 2013), it seems wasteful to only see streets as links for movements. As such, many argue the need for life to return to the streets. There is a return of the urbanism spirit, where there is once again the concern for the scale of people walking, for attractive, intricate places and for complexity of uses and activities (Tibbalds, 1992).

To do this, streets must regain the various functions and roles it played before the advent of cars – streets must be treated as the city's main public spaces and its various functions must return to the space. On top of its movement functions, streets must have place functions as well. Jacobs (1961) considers streets and their sidewalks as the main public places of a city. Appleyard (1981) echoes this, additionally arguing that streets have important social dimensions. In 2013, London's Road Task Force (RTF) also considers streets as public space, citing that "streets account for 80 per cent of London's public space".

The images and meanings of the street as a public space are not a given – they are produced through its design, planning and management. In designing for life to return to the streets, it is important to understand what makes a great street and a public place. Jacobs (1993) summarized several physical qualities that contribute to great streets, such as trees, many buildings, rather than few, slopes and many more. Cullen (1971) also presented a list of physical features of ideal streetscapes, primarily from the pedestrian's point of view. These works can mainly be seen as focusing on the built environment of the public space, missing out on the view of the public themselves. Focusing on the built environment may help urban designers design for better social activities – as built environment impacts social behaviour – but how the public are reacting to the space must also be further investigated.

Following that, there has been efforts to better understand and design for the social aspect of public spaces. In urban design literature, Carmona (2019) presented a list of characteristics of successful public spaces, which includes spaces that are evolving, diverse, social, meaningful and many more. The list attempts to summarize the successful characteristics of all types of public spaces, but it focuses mainly on plazas and parks. Gehl (2010) also presented the 12 Quality Criteria that focuses on how the public realm is experienced by its users and how the design of the built environment can enhance that experience. The qualities are organised into three general areas of focus: "Protection", "Comfort", and "Enjoyment". These qualities, too, focuses more heavily on non-link public spaces.

Mehta (2013) attempts to procure a list of characteristics, specifically for streets, that support social behaviour on the streets. This list not only includes physical features, but also economic and social features of the street. Healthy Streets, introduced by TfL in 2017, also presented 10 indicators that make streets places that are appealing, healthy and inclusive. Project for Public Spaces (PPS), an organization built upon the research of Whyte (1980), also summarised four key components that make great public spaces, which are "Access and Linkages", "Comfort and Image". "Uses and Activities" and "Sociability". While the list by PPS is addressed to public spaces in general, explicit consideration of streets as public spaces is observed due to the inclusion of the first component, "Access and Linkages".





Several proposals have been put forward to improve walkability in London. Zaha Hadid Architects (2018), for example, proposed a full-scale network of pedestrian routes across London. These proposals often include pedestrianisation, which can be one of the measures to limit the damaging effects of car dominance in the city. Pedestrianisation usually involves removing motorized vehicle access to certain areas for the exclusive use of pedestrians. One high profile pedestrianisation proposal is that of the Oxford Street, proposed by TfL in 2017 (TfL, 2018). In light of increasing intent to increase pedestrian public spaces in the city, this research seeks to understand how pedestrians behave in existing pedestrian public spaces with the aim of creating more "good" pedestrian spaces.

Public life studies have been established for exactly that purpose. Public life researchers such as Gehl, Jacobs and Whyte argue the need for life to return to our streets and public spaces (Gehl, 2013). To improve public life in public spaces, designers must go out to study life in the spaces themselves (Jacobs, 1961). In the public spaces of New York, Whyte (1980) introduced basic observational

methods to study social activities and attempted to summarize the components that make a place attractive. Gehl and Svarre (2013) then presented a range of tools to record how the public behaves in public space. These observations and studies can then be used to shape policies on the public spaces of the city – in our case, the streets.

Research Gaps

Despite the wide range of readings available, Jones et al (2007) noted that the social functions of the street, where streets act as focal points within the community, are not very well understood. They are also not part of current appraisal procedures of the streets and its functions. A review of the literature reveals that there are only a handful of studies that have been carried out to record the social behaviour in urban public spaces. However, most studies focus on plazas (Whyte 1980, Gehl 1987), while others focus on residential streets (Jacobs 1961, Appleyard 1981).

Additionally, it must be noted that no two public spaces and set of "public" (in this case, pedestrians) are the same. Jacobs (1961), for example, objected to implementing standard solutions in addressing the decline of public life in public spaces. Observations done in New York (by Whyte and Jacobs) and Copenhagen (by Gehl) cannot be assumed to hold true to other locations such as in London.

As such, this research aims to address that by performing public life studies in London's public pedestrian spaces in hopes of better informing design solutions that can be implemented in light of pursuits of making street space better for all.

There are many evidences about public life on the streets within the urban design and transport field, but there are still gaps that must be addressed. One such gap is the understanding of different usage, perceptions and needs of different types of public space users to unlock a more socially attractive pedestrian space – a gap this research aims to address.

3.0 Methodology

This study is centred upon four research questions, each consisting of a set of objectives to be met through the research process.

1.	How does social activities on pedestrian streets differ between passive, fleeting and enduring sociability?
	 Explore the scholarly and public discourse on the streets and its function and evolution in cities, especially in London Identify how social activities on the streets are categorized based on previous literature and data collected
2.	How do pedestrian and other street users use the pedestrian streets?
	 Use observations and interviews to record how users use the street Analyse how and why different users use the street differently
3.	How do different users perceive the pedestrian streets?
	 Use interviews to explore the perceptions of street users on safety, comfort, accessibility and diversity Analyse how and why perceptions of the street differ between street users
4.	What are the characteristics of a good pedestrian streets?
	 Use the observations and interviews to highlight characteristics that make attractive and sociable pedestrian streets

3.1 Case Studies

The case studies chosen for this study are three pedestrian streets in London, namely Leicester Square, South Bank and the Barbican. All three are globally known cultural and entertainment hubs that attract millions of visitors annually. Leicester Square is home to nationally significant cinemas and is often used for film premieres. South Bank is home to a few cultural and artistic venue, in particular, the Southbank Centre, the largest arts centre in the UK. The Barbican is a multi-arts centre which includes the Barbican Centre, situated amongst flats, schools, a church and many more – all with distinct architectural appeals. All three are pedestrian areas that are well-served by public transport services, both tubes and buses, and are relatively well-known to be nice places to walk and spend time in.



Figure 2 - Locations of the three study sites in London (Map Source: Digimap)

Leicester Square is a square with a park in its centre, located in Soho, and neighboured by other tourist attractions such as Piccadilly Circus, Trafalgar Square and Chinatown. The square is surrounded by several cinemas, casinos, hotels, food chain stores and shops of well-known brands, such as Lego and M&Ms. For this study, observations on social activities are made around the squares, while observations on link activities are made along the northern side of the park, between Swiss Court and Cranbourn Street.



Figure 3 - Observation areas in Leicester Square (Map Source: OpenStreetMap)

The study site at South Bank is the public spaces around the South Bank Centre, between the Golden Jubilee Bridges and the Waterloo Bridge. It includes the elevated terraces around the buildings there, as well as the Queen's Walk along River Thames. The buildings that are included in the study area are all part of the Southbank Centre, which neighbours several other tourist attractions such as London Eye on the west and National Theatre on the east. Observations on social activities are made in the public spaces of the area, while observations on link activities are made along the Queen's Walk.



Figure 4 - Observation areas at the South Bank (Map Source: OpenStreetMap)

The Barbican Estate is an urban microcosm, with residential blocks arranged around communal spaces. Its design is inspired by the work of Le Corbusier and his vision for a 'vertical garden city'. The estate features several cultural facilities, underground parking, private gardens and lakes with fountains and a waterfall. The estate is entirely pedestrianized with two circulation systems: the highwalk, a network of bridges and narrow walkways, and the podium, a raised platform which become the 'new ground level', with road and rail traffic passing underneath. The study site at the Barbican centres around the Lakeside Terrace and the public spaces in and around the Barbican Centre. Link activities are observed along the Lakeside Terrace, between Defoe House and the Gilbert Bridge.



Figure 5 - Observation areas at the Barbican (Map Source: OpenStreetMap)

3.2 Methods

Public Life Studies

Public life studies were developed by researchers in their pursuit of returning life to the streets. The methods in this study are mainly inspired by those proposed by Gehl and Svarre (2013). A range of tools was presented to systematically register the observations of interaction between public life and public space. The method allows us to understand how a space is used, when it is used, by whom, and many more. Table 1 below summarizes the tools selected to answer the research questions posed by this study. All data collected was also disaggregated by gender and age to help understand how usage differs between street users.

Observations were done on site around 10:00am-3:00pm on relatively sunny days as with moderate temperatures (20-27°C), as these conditions constitute a "good weather". Observations for public life should ideally be recorded on days with good weather as that is when outdoor public life flourishes best and hence, the best picture of space usage can be obtained (Gehl and Svarre, 2013). Points of observation are scattered around the sites to maximise views of social activities on the street.

Table 1 – Public Life Studies Tools Employed

Tools	Remarks
Mapping	Also called behavioral mapping, where activities are mapped onto the locations it took place in the study area. In this study, mapping is used to register the different link and place activities on the street.
Counting	Based on the principle that everything can be counted, providing quantitative data to better understand how the space is used. For this study, counting is used to register pedestrian and other street users flow across a predetermined line in the study area.
Photographing	A tool to document situations where the interaction or lack thereof between urban form and life. For this study, photographs and videos are used to document the features of the physical and social form of the streets that affect the usage and perception of the different street users.

Categorising Observations

The walkabout and mapping method, or 'behavioural mapping' was used to help identify the spaces that are used for place activities (i.e.: place users) as well as the type of activities that were carried out. The original mapping method proposed by Gehl and Svarre (2013) is a record of activities done on the streets in a snapshot of time. However, due to the large, obstructed and non-linear nature of the study sites, a walkabout method similar to that used by Mehta (2013) is used to collect data. Gehl and Svarre suggested categorizing observations into four different groups (see Figure 6(a) for observation categories). However, to obtain a deeper understanding of the social activities that were observed, observations were categorized based on link activities and place activities as suggested by Jones et al (2007), with place activities being further divided into three types, based on the typology of social behaviours outlined by Mehta (2013) – passive sociability, fleeting sociability and enduring sociability. Figure 5 below shows the difference in categorisations.



Figure 6 - (a) Observation categories suggested by Gehl and Svarre (2013); (b) Observation categories adopted for this study, based on Jones et al (2007) and Mehta (2013)

Interviews

Conducting interviews is another method employed by this study to understand the different usage and perceptions of different street users. Whilst observations are meant to be objective in nature, the method is highly vulnerable to observer-expectancy bias, i.e.: drawing connections based on observer's own expectations. Interviews with other street users may help overcome this by grounding the observations with the response received from interviewees.

For this study, 23 semi-structured interviews have been carried out amongst 26 interviewees in three different locations. The interviews are used to understand how individuals use and perceive the space. While an interview methodology is arguably not meant to be representative (Valentine, 2004), the study attempts to diversify the types of respondents to mimic the different types of street users present. Interviewees across all three sites are generally well split in terms of gender and age as seen in Table 2. Table 1 in Appendix lists a summary of all the interviewees involved.

	Male	Female	Young (18-50 years old)	Old (>50 years old)
Leicester Square	4	3	4	3
South Bank	4	6	6	4
The Barbican	5	4	6	3
	13	13	16	10

Table 2 - Interviewee breakdown by gender and age

The interviews are conducted in the public spaces of the study sites. As this study aims to understand public space users, interviewees are chosen by virtue of them being in the public space. The interviews lasted between 15 to 30 minutes where responses were audio recorded with permission. Respondents were informed of the purpose of the research in advance and assured of anonymity. All participation and information shared were voluntary. Responses were then transcribed using a transcription software, Otter.ai, into a word document, which was then used to carry out textual content analysis, using the software Nvivo.

4.0 Description and Discussion of Results

Analysis was conducted on the data collected to better understand street usage and perception. Section 4.1 explores the usage of streets as links and places. Place activities are further explored where social activities are analysed and categorised into passive sociability, fleeting sociability, and enduring sociability. Section 4.2 then explores the different perception of street users based on the aspects of safety, comfort, accessibility and diversity. Section 4.3 then summarizes several characteristics that makes the streets socially attractive spaces derived from the data collected.

4.1 Usage of the Streets

Streets play important an important role for link and place functions. These two main functions result in a competing need for space. While this competition can be observed more evidently between different types of vehicles users on the streets (e.g.: car users vs pedestrians), it can also be observed between pedestrian link users and place users.

Streets as Links

Link activities are defined as activities related to moving along the street without any requirement to access the land use or amenities (Jones et al, 2007). For pedestrianized streets, the majority of street users are pedestrians who are walking or wheeling along the street and some cyclists. The counting method was used to identify the number of pedestrians using the space as a link (a.k.a. link users) within a 10-minute interval. Table 3 summarizes the results, extrapolated to reflect users per hour.

Type of link users	Users per hour					
	Leicester Square		South Bank		The Barbican	
	Male	Female	Male	Female	Male	Female
Pedestrians	1344	1158	1098	1284	210	210
Bicycles	42	0	4	0	0	0
Other (roller skates,	12	12	0	0	0	0
scooters, etc)						
TOTAL	2568		2386		420	

Table 3 - Results of the Counting Method for the Case Studies

It can be observed that both Leicester Square and South Bank are heavily trafficked by link users, recording more than 2300 pedestrians per hour. The Barbican only recorded 420 link users despite similar timings and weather conditions during observation. This reflects the level of link function of the different spaces, where Leicester Square and South Bank can be deemed as having high link functions, while the Barbican has a lower link function. User interviews also highlighted the importance of these streets as links, such as the following user on South Bank.

If I'm actually trying to get somewhere, it (South Bank) is one of the fastest ways to get from East to West London, because there's no traffic lights, or anything that stops you – Interview SB#3

The presence of pedestrian on wheels and cyclists varies amongst the three study sites. Leicester Square recorded the most variety, followed by South Bank and the Barbican. This can be attributed to the multi-level nature of these streets – the more built-up the streets are, the lesser the variety of wheels used. It can also be observed that whilst both males and females travelled using wheels (e.g.: scooters, roller skates, etc.), only male cyclists were observed in the areas. Whilst interviews to understand this behaviour was not conducted, studies have shown that males cyclists have a higher tendency to engage in riskier ways of travelling when in pedestrian majority areas (Davies et al, 2003). This is reflected in the observation that all the cyclists that were observed on site were males.



Photo 1 – Both males and females were observed wheeling through the streets on roller skates, while only males were observed cycling.

Streets as Places

Place activities demonstrates a much wider range of diversity in terms of the types of activities done. The host of behaviours and activities of street users create opportunities for social activities – activities that depend on the presence of others in public space (Gehl, 1987). He also posited that there are varying degrees of contact intensity that can be found in social street activities, ranging from passive contacts, chance contacts, acquaintances and friends to close friendships. A well-designed street provides for and facilitates the widest range of contact intensity. This study has adopted the typology of street social behaviour as proposed by Mehta (2013), where behaviours observed can be categorized into three:

- 1. Passive Sociability
- 2. Fleeting Sociability
- 3. Enduring Sociability

Passive Sociability

Passive sociability stems from the need of human beings to be in the presence of others without seeking any direct contact (Mehta, 2013). Being alone in public is a social behaviour.

Passive social behaviours are observed on all three streets. Many came to these places to be alone in public without any intention to interact with anybody, nor participate in any social exchange – to simply be with others. Perhaps there is a reassurance in the presence of humanity, to see and hear others and to feel a part of a larger community. An interviewee in Leicester Square, for example, a young male who considers himself a "city camper", captured this sentiment.

It's nice to sit among people ... even if you're not chatting with anybody, just sit and chill ... I'm not looking for any activities, I just like being among other people – Interview LS#3

Many also come to these places to eat and drink alone, read, write and work using a laptop. Both Leicester Square and South Bank attracts those who work around the area especially, to come and spend some alone time during breaks while getting all necessary activities done. The provision of seating at these areas are the most important street feature to support these activities. Many of those observed eating, reading and drinking alone can be seen sitting at the various public seats in the study areas as well as built surfaces that can double as seats, such as stairs and edges of planters.



Photo 2 - Example of passive sociability where the subject is working on his craft on his own on the street at South Bank. Stairs here double as seats where people can spend time on, supporting passive sociability.

Many find this act of being alone in the crowd relaxing. There is perhaps something therapeutic about being immersed in the vibrancy and hustle and bustle of other people carrying out their own activities. One interviewee captured this sentiment exactly, citing that being on the streets helps clear his mind to be more productive at tackling work problems.

I live around the corner ... When I'm working from home, I come here to decompress at lunchtime and after work ... if I'm struggling with a problem, I come out here and go for a walk and try to think things through – Interview SB#3

Another popular passive social behaviour is people watching. Streets as public spaces provide a stage where one can watch the drama of social life. These streets are where people can see and be seen - there is always something for everyone to see and show off. People attract people – street buskers, preachers, living statues, people posing for photographs and videos and many more actions enhance the visual and hearing experiences of street users. One interviewee at Leicester Square mentioned,

I came here because ... there is a lot of activities and people, interesting people *pointing to a Darth Vader living statue* – Interview LS#6

It is through watching others that may or may not be physically, culturally or socially similar to ourselves that people are exposed to those who are unlike ourselves. Passive sociability plays an important role in familiarizing the public to those whom they may consider as "others". It provides an opportunity to develop empathy for others, by learning from observing a variety of unfamiliar people, behaviours and activities.

Fleeting Sociability

The streets are also where people cross paths with each other, enabling chance encounters that may lead to short term, low intensity contacts. This was how Mehta (2013) defined fleeting sociability. Here, fleeting sociability are the short-term static activities that are done on the streets that may lead to low intensity contacts with other street users.

The proliferation of social media and the widespread of content creation by the masses has led to many recording and sharing their everyday lives online. As all three study sites are major tourist attractions, taking photographs and recording videos are some of the examples of fleeting social behaviour that were observed. Many used their phones or cameras to capture pictures or videos of the various things that interest them, be it other people, the built environment or art installations. Expectedly, these activities were also highlighted by several interviewees, some mentioning that these are for their social media feed, while others, as hobbies. An example of fleeting social exchange that may occur during this activity is the request of other street users to take a group picture of a family.

This place is nice, because (I can get) different shots. From here, you can get the clocktower (Swiss Glockenspiel), the flag tower (the Cantonal Tree), and the Jubilee flags and the Piccadilly Circus, in the same shot. – Interview LS#6



Photo 3 - Sample of a photograph on social media taken in the streets of the Barbican, printed and exhibited as art work in the Barbican

Another fleeting social behaviour observed is the action of orientating oneself in the space. All three study sites are highly patronized by tourists who are unfamiliar with the area. These streets, with their seats and places to stop, offer users respite from their journey and allow them the opportunity to

"figure out what to do next" (Interview LS#2). Leicester Square for example, is surrounded by several other touristic places such as Trafalgar Square, and Covent Garden. Similarly for South Bank, which is located along the Queens Walk, in between London Eye and National Theatre. Many are seen on their phones or around wayfinding maps to identify nearby attractions and navigate the next leg of their journey. Similar actions are also observed in the Barbican. However, users mentioned of knowing where to go, but needed help to know how to get there. Asking for directions by street users to those working in the area can be observed more often in the Barbican.



Photo 4 - Street user using the wayfinding board to identify attractions and navigate the area

Play is key to fleeting sociability (Mehta, 2013). The design of the street as well as items that are added onto the street can invite play to happen. In Leicester Square, for example, statues of various iconic fictional characters erected and scattered around the square not only add visual interest to the street, it also acts as points of attractions where play can happen. The statues are designed to attract children and are designed to allow them to climb and sit on. In South Bank, the Southbank Skatepark, an area dedicated to playing skateboard, and a water-based exhibition where children are allowed to play in, attract another type of fleeting social behaviour: watching others play. The Barbican, too, attempts to inject some form of play into the area by introducing temporary play things (e.g.: a jumbo size Connect Four and Tic-Tac-Toe) in the Lakeside Terrace. However, not many users interacted with them.



Photo 5 - Street furniture in Leicester Square such as bollards are also potential play things for children



Photo 6 - "Appearing Rooms", a water-based exhibition at South Bank Centre, attracts children to play along with their spectators

Many other different types of fleeting sociability were observed on the streets and mentioned in interviews (see Table 4). It is suggested that these brief contacts with other human beings are possible beginnings of deeper social interactions between people (Gehl, 1987). Through these short term, low intensity contacts, people can learn to trust others who may otherwise be total strangers (Jacobs, 1961).

Enduring Sociability

While many see the streets as a location where to pass through or only for momentary stops, many too, come to the streets to actively connect with partners, friends, and the community. This is the third type of social behaviour, that is enduring sociability. This typology covers the lasting static activities that occur on the streets between street users that may or may not be intimate or acquainted with each other.

An example of enduring social behaviour that was observed are eating and conversing with friends. In all the study sites, these occur near businesses that sell food. Once people bought their food (a fleeting social behaviour), they then proceed to sit down in seating areas, either alfresco ones provided by the eatery or those publicly available, to eat and converse with their companions. These activities are essential in building enduring social relationships within the community. Enduring social relationships are beneficial to both the individual, as human company is a basic psychological need, and the society, as the sharing of ideas and information during these conversations helps build social capital.

Another type of enduring sociability refers to those who engage in many fleeting social interactions over a longer time frame. This may refer to sellers, street performers and many others who specifically seek the attention of other street users. Leicester Square provides a great setting to observe these types of behaviour. With street buskers, preachers, living statues and portrait artists scattered along the street, as well as workers manning the entrances to shops, these people provide added interest and simulation to attract fleeting social interactions between the street users who watch, listen to and engage with them.

Attitudes of businesses and agencies that set policies and manage the street play a big role in providing opportunities for enduring social behaviour (Mehta, 2013). The design and management of the street can help create opportunities to support enduring sociability. It is critical that places to gather are allowed and encouraged for enduring social behaviour to take place. In Leicester Square for example, the wide design of the street that allows it to accommodate both movement and static activities is paramount in encouraging the presence of street performers.



Photo 7 - Workers of Lego store using playful methods to attract and engage street users

Table 4 - Examples of social activities observed on the streets

Types of Sociability	Examples of Activity	
Passive	- Eating/drinking alone	- Working on a laptop alone
Sociability	- Reading/writing alone	- People watching
Fleeting	 Taking photographs 	 Walking pets
Sociability	 Using the phone 	 Watching/listening to street
	- Playing	performance
	 Buying/selling at stalls/shops 	 Maintaining the street
	 Orientating oneself (correct belongings, 	- Queueing
	figuring out directions, tour group	- Exercising
	gathering, etc)	- Boat watching
Enduring	 Eating/drinking with a friend for a 	- Street performing
Sociability	prolonged period	- Preaching
	- Conversing with a friend	- Living Statues

24

Mapping Street Usage



The results of the walkabout and mapping observed in Figures 7 below.

25



Figure 7 - Mapping street activities at (a) Leicester Square, (b) South Bank and (c) the Barbican

The mappings of social activities of the sites reveal how the spaces are being used in terms of link and place activities, as well as passive, fleeting and enduring sociability. Understanding how different pedestrians use the space will enable designers to create spaces that can help encourage the types of activities desired.

"If you build it, he will come" seems to apply to seating in areas with high volume of pedestrians. People sit where there are seats and these become focal areas where social activities take place. In Leicester Square and South Bank, high concentration of triangles, circles and diamonds in an area would indicate places with seating, such as alfresco dining areas and benches. However, not all seating is considered equal. People are more likely to be doing enduring social activities at seats in alfresco dining areas where they are away from link activities while at public seating, such as benches, edges of planters and stairs, people are more likely to carry out passive and fleeting social activities such as eating on their own, looking at their phones, reading, etc. People also tend to sit where they would be able to see things that attract them. In Leicester Square, for example, where people are the attractions for other people, more users are observed seated on the northern area of the square, where there are more people using the path as a link and where street performers and statues are, when compared to the southern area. Observations also revealed that certain social activities attract different segments of the population. In Leicester Square, the majority of street users that stopped and listened to the preachers preaching are male. Similarly for the skate park at South Bank where the majority of skaters are male. This suggests that while the activities themselves (preaching and skateboarding) are not gendered, the response to the activities are. Street designers must keep this in mind when the spaces that they design support these gendered activities. This is because, the types of users seen on the streets impact other's perception of the streets and in extension, the usage of the street. Attracting only males, for example, may negatively impact the perception of safety and feeling welcomed of females and children, resulting in them not spending time on the street. On the other hand, designing a place that attracts families positively contributes to its perception, inviting males, females and children alike to spend time on the street.



Photo 8 - Preaching on the streets attracts fleeting social interactions, almost exclusively amongst male street users.

Even though the types of activities observed may be similar in all three sites, there are slight differences in by who and where the activities are carried out. Table 5 below provide an example on how play, a fleeting social behaviour, differ.

Table 5 –	- Example	on how	play differ	· between streets
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	Fleeting Sociability: Playing	
Leicester Square	South Bank	The Barbican
Play occurs everywhere as existing street furniture, street performers and permanent street art become playthings on site. Adults and children alike engage in play, creating an inclusive playful environment.	Dedicated spaces for play are available on site – a permanent skate park and a temporary art installation. Children are the ones primarily enjoying play in the area.	Play opportunities are scarce – the space attempts it by introducing temporary play things. These objects failed at attracting play, with only occasional usage.

4.2 Perception of the Streets

Perception of city spaces is dynamic and sequential, dependent upon the experiences of users over time (Rapoport, 1987). The ubiquity of streets means that many different users interact and experience them, resulting in different images, views and experiences. Building on from the understanding of street usage, this research uses qualitative information to understand how different users perceive the streets, why the perceptions are formed and how it differs between users.

Safety

Safety needs are second only to physiological human needs (Maslow, 1943). Streets users need to feel safe to be on the street. Perceptions are products of physical and social dimensions of the street. Previous research has shown that characteristics of the built environment and the people on the street affect greatly its real and perceived safety perceptions (Mehta, 2013). This, in turn, affects street usage.

All three streets are generally perceived as safe, especially during the day. Many cited this sense of safety stems from the sheer number of people present, echoing Jacobs (1961) concept of having 'eyes on the street', where people on the street act as a natural monitoring system.

I believe [that this place is safe] because it's always crowded. You don't have to be scared of anything.– Interview LS#2

However, whilst having many people present can help evoke a sense of safety for some, there is also the perception of having 'too many' people, resulting in unsafe feelings. This may suggest that individuals may have a minimum and maximum threshold for the number of people in the surrounding area that may affect their sense of safety.

During the weekend, my answer [of feeling safe] probably will be different. Because then it will be busier. There's a lot of people, maybe I will not feel safe here – Interview SB#1

On top of the number of people present, the types of people present also affects the perception on safety. Presence of families on the street, especially those with younger kids, for example, becomes a proxy for many interviewees to perceive the areas as safe.

Yes, I do [feel safe], because I see that there's a lot of families - Interview SB#4

Interviews with different street users also reveal that whilst perceptions on safety may be similar between different user groups, the formulation of said perceptions may vary between different users. This is especially evident when asked about night safety between sexes and the different of types

spaces the users are in. Women and men formulate their perceptions of street safety differently. In a centrally located site like Leicester Square, female interviewees used their experiences in the city as a baseline and concluded that they feel safe walking in Leicester Square at night. Male interviewees, however, said that they feel safe themselves, despite the low number of street users at night, but not for other women – a conclusion formed based on news of women safety throughout the city. For built up streets like the Barbican, lighting is the main concern for night safety and this was more frequently mentioned by female interviewees, compared to male.

Comfort

For people to spend time in a space, they must feel comfortable and welcomed to do so. The large number of place users in the three streets indicates that these spaces are comfortable to spend time in. This is also reflected in the interviews where several conditions were highlighted to create a comfortable and welcoming experience for street users, such as availability of seating, cleanliness, and protection against unpleasant weather and sensory experience.

People tend to sit where there are places to sit (Whyte, 1980). Sitting space is often cited as an important factor in retaining people in public spaces. On top of seating availability, the location of seating, especially of public seating, is also important in supporting social behaviour (Mehta, 2013). The sitting places of the study sites have been strategically placed to face their main attraction. Several interviewees highlighted the importance of seating for them to spend time in these streets, such as the one below:

I can see myself sitting here for longer, because there's seating. I love sitting here on these benches ... and look at the river. – Interview SB#4

Cleanliness is also an important factor in forming users' perception of comfort. After care and maintenance of the street, which includes street cleaning and caring for street furniture and plants, is as important as getting the street design right (Tibbalds, 1992). This is especially noted by patrons who have been around for a long time. Interviewee LS#1, for example, an old participant who frequents Leicester Square over the past 30 years noted how much its cleanliness has improved over the years, positively impacting her comfort in the area.

The buildings have gotten a facelift. It was rundown and sad, but now it's uplifting. It is much better now, not so filthy. These pavements, tarmac and statue used to be quite dirty. But they clean it up and put flowers in. – Interview LS#1



Photo 9 - Presence of the occasional street maintenance crew contributes positively to the perception of comfort as users can observe that the space is cared for.

Also important in supporting outdoor activities is the microclimate conditions, such as sunlight and shade, temperature and wind. Gehl (1987) posits that many activities in public spaces only take place when the exterior conditions are optimal. However, people's preference for spaces in the sun or under shade changes with the weather and seasons. In summer, for example, when this study took place, several interviewees highlighted their appreciation for seats under trees as it provides the shade needed from the sun, contributing positively to the perception of comfort.

Accessibility and Wayfinding

A truly public space is accessible to everyone, inclusive of all ages and abilities. However, this is not the case for most of our public spaces which are designed for the able-bodied adults. This is reflected in the perceptions on accessibility in the three study sites. Out of the three, Leicester Square is perceived as most accessible as the street is at grade, with gentle slopes and no stairs. Access from surrounding areas is also continuous and step-free. The South Bank and the Barbican, however, are perceived less accessible with their multi-level public spaces. Despite the fact these two spaces have provided accessible ramps and lifts to connect the different levels, many still find these areas unfriendly to wheel users such as wheel chair users and parents with strollers. The following space user highlighted this, suggesting the lack of direct accessible options as reason for her behaviour.

After the show (at the Southbank Centre), we wanted to come down to the river ... we couldn't see how else we could go down, so we picked up our stroller and brought it down along the stairs. - Interview SB#7

Wayfinding is also an important feature of the streets, as public spaces with link functions. Many come to these spaces expecting to get to someplace else and hence the ability to know where to go next is crucial. Many street users on these study sites find the wayfinding on the street lacking, despite citing that they are already using GPS-enabled technology such as Google Maps on their phones to guide their journey. This is especially apparent for multi-level public spaces such as those in South Bank and the Barbican. The plan view of the maps makes it difficult for the users to incorporate elevation changes as they move through the space. It was also highlighted that the physical wayfinding maps on streets are not enough. Interviewees mentioned that they are "not as often as they should be" (Interview TB#1) and "the next board is so far down the line" (Interview TB#5) which results in the feeling of being lost. The Barbican, unfortunately, is so confusing for users that many have come to accept that "being lost is part of the Barbican experience" (Interview TB#8).

Diversity in Activities and Attractions

A good public space is one that offer options for seeing, talking and listening, play, exercise and activities (Gehl, 2010). These options must be varied and diverse to offer street users many different reasons to come and spend time on the streets. From the interviews, Leicester Square and South Bank are perceived as diverse in terms of the activities and attractions they offer to street users. One interviewee in South Bank, for example, shared how they use the space for different activities – in the same space, they enjoyed public art installations, jogged and exercised, met up with friends, bought food, people-watched, relaxed and many more. The range of different activities mentioned reflect the street's ability to support many different types of social encounters, allowing opportunities to participate in public life. The Barbican, however, was perceived as lacking in terms of activity and attraction diversity as the offerings seem culturally similar.

Diversity in Street Users

When asked about user diversity, Leicester Square and South Bank are perceived as being diverse, while the Barbican was not. The interviews reveal several reasons for this perception.

One of the reasons for perceived user diversity is the location of the streets themselves. Leicester Square, for example, is located in Soho where many tourists visit. These tourists come from all over the world, and is made up of many different races and nationalities. This was not only observed visually on site, it was also captured even within the small interview sample where interviewees originated from countries ranging from Vietnam to United States of America. Additionally, Leicester Square is

surrounded by many different types of commercial and cultural areas such as Chinatown and the National Gallery that attracts people of different socio-economic levels and background. Interviewee LS#4 for example is an old, male participant who works in Chinatown and spends time in Leicester Square to before and after work to relax and enjoy the space.

It can also be observed that the streets' different built environments may have also contributed to the perception of street user diversity. Leicester Square, with its at grade street environment, allows for a more permeable walking experience from surrounding locations, creating opportunities for 'accidental street users', i.e.: street users who happen to be in Leicester Square by chance. The Barbican, on the other hand, seems isolated from the rest of the city with its distinct multi-layered built environment. As such, those that frequent the streets in the Barbican are mainly 'intentional street users.'

Another factor in user diversity perception is the history of the place itself. This factor was specifically highlighted for the Barbican, whose history is of much interest to its patrons as it attracts people of very specific interests. Interviewee TB#8, a tour operator in the Barbican, mentioned how the Barbican was designed with the 'young, middle-class professionals' as their target market, with 'interesting' questions believed to have been asked in their tenancy interviews, which included whether or not they would attend the local church on Sundays. Whilst these practices are no longer in place, this piece of known history could have contributed to the perception of low user diversity such as quoted below.

I suspect these flats are expensive. I imagine most residents are well off people, presumed to be working in the city ... I wouldn't say this was a particularly diverse environment, economically and racially – Interview TB#1

The diversity of activities and attractions also impact the perception on the user diversity. Spaces with attractions for different types of pedestrians will result in street user diversity. The South Bank, for example, offers many different things to do and see that appeal to a wide range of users – from cultural shows and art installations for young and old adults to skatepark and water fountain for children. Some attractions need to be paid for, while many others are free, allowing users to enjoy the space without the prerequisite of spending money. The Barbican, on the other hand, has similar cultural offerings and as such attracted a certain segment of the population.

... the Barbican is associated with music, most of all classical music ... I would think that it's mainly white, older middle-class people [that would be attracted to the Barbican] – Interview TB#1

4.3 Making Great Pedestrian Streets

Observations and interviews on the streets show that people use the street for different purposes and have different expectations from it. These are formed through their physical, social and cultural experiences. Adults and children, for example, use and experience the streets differently. The streets must be designed to accommodate this wide range of usage and needs. This section looks at several suggestions on how to create healthy, sociable streets, formed from the data collected. The following is not meant to be a guideline, but rather additional insights that may be used with other lists of criteria or indicators established by other sources as mentioned in Section 2.

Maintain Link Function

Streets are channels for movement and should remain so even in the face of increasing efforts to upgrade streets as public spaces. This duality function (link and place functions) is what sets them apart from other types of public spaces, such as playgrounds, plazas and parks. With the right street design, maintaining the street's link function adds value to its place function. This is evident in Leicester Square and South Bank. These two streets maintain their role as important routes between destinations in its immediate vicinity. By maintaining their importance as links, the space attracts people to use the space, even if by simply passing through it. This footfall, in turn, seems to attract other people to spend time in the space, i.e.; place users. This especially seems to attract those carrying out people-related passive social activities, who are drawn to the place because of the presence of others.

I love spending time here to just be with others ... It's fun to look at others hustling about in their daily lives. There are also many interesting characters, you see a lot different types of people, hear different language - Interview LS#7

The Barbican, with its multi-level pedestrian access, fails to maintain the same level of link function with respect to the destinations surrounding it. As such, the streets in the Barbican have low link function, but high place function. The low level of link usage results in less people being in the space, with many being in the area considering the Barbican as a destination itself.

Create Safe and Comfortable Spaces for Everyone

Pedestrians are concerned about traffic as they are the most vulnerable road users when compared by vehicle types. Pedestrian-only spaces such as all three study sites are streets that are car-free, offer protection from traffic and accidents. This not only creates a safe environment for the street users, but also acts as an attraction for those who seek to be away from those polluting machines. Several interviewees highlighted the attraction of these spaces that are away from cars as a reason they spend time on these streets.

The number one thing [that I like about this place] is no cars ... I find it not very relaxing when you're right next to the road, and you can smell the pollution and it's horrible. – Interview SB#3

People also want to feel safe at all times of the day. Fear of being assaulted or robbed can be a major barrier to street use, especially for women and at night. This perception generally holds true for most of the female interviewees of this study. Many cited the need for better lighting at night. This is especially acute for built areas such as the Barbican, where there are corners that may be lacking in lighting, creating dim and dark areas that instil a sense of fear for safety. The number of people around also affects the sense of safety on the streets. The Barbican, with its lower usage as a link, has generally lesser number of people on the streets, negatively impacting its sense of safety at night. Surveillance technology such as the CCTV at Leicester Square has been introduced to mitigate this, but not many is aware of such safety feature.

Provide Things to See and Listen to

People are attracted to unique things and will make a trip to the street to see and experience it for themselves. All three study sites offer unique attractions for people from all over the world to see and experience. These streets are highly touristic and despite widely available images of these places on the internet, people still come to see it for themselves. Leicester Square does this well, scattering unique street items along the street. Interviewee LS#6, for example, described in detail the angle of shots they would take to capture the unique views of Leicester Square to be shared on social media. Additionally, Leicester Square also introduced a series of film-themed statues featuring characters from films from 1950s to 2020s that allows street users from all ages to enjoy them.

South Bank also captures the attention of street users by introducing flashy art installations that break the monotony of the built environment. On top of sense of sight, South Bank took a step further by also engaging the street users' sense of hearing. Sound sculptures are installed on the streets to add audio interest to the area. Mixed reviews were gathered from the interviewees, however. While some
appreciates the immersive feeling that the sounds offer by "adding to the atmosphere", many found it "intrusive" and "makes it hard to have a conversation."



Photo 10 - "Modified Social Benches" are vibrant-colored art installations scattered on the streets adding visual interest to the scene by breaking up the monotony of the buildings.





Photo 11 - The solitary Sound Sculpture signage installed by the rails beside the river, easily missed by most street users, and speakers installed on the trees beside the public benches, creating an immersive experience for those sitting

Incorporate Elements of Play

Allowing for play to happen on the streets help create a more sociable street. It adds to the list of things to do, creating reasons to stay. Play on the street can be supported in many ways. In Leicester Square, where space for dedicated play areas is scarce, street furniture become places where play

happen. Street furniture, hence, should be designed and positioned to support this. The Big Red Dog statue in Leicester Square is an example of how street furniture supports play. South Bank supported play by dedicating spaces for it, like the interactive art installation where children play with the water fountains, and the skate park. The Barbican, too, seems to realize the importance of supporting play as they introduced play things on the terrace. Unfortunately, such attempt was perceived as "out of place" due to the solitary and temporary nature of such play things.



Photo 12 - The jumbo size Connect Four and Tic Tac Toe play things on the terrace fails to realize much playing on streets, only occasionally attracting street users

Incorporate Elements of Nature

Streets are excellent spaces for nature to exist in the city. Its ubiquity allows them to be easily accessible for many at all times of the day. Often, when mentioned about relaxing in the space, interviewees will link it to the elements of nature found on the streets. Some find tranquillity amongst the "old" and "very big" trees in the gardens at Leicester Square, while others enjoy the sense of calm from the River Thames by the South Bank. Those in the Barbican, too, highlighted the lake which was found to be calming and aesthetically pleasing when "contrasted with the concrete." The beauty of these elements of nature is not lost on the street designers as it can be observed that many seating are strategically placed for street users enjoy the natural elements.

Animals, too, can be incorporated onto the street scene to create more sociable streets. Whilst not the main attractions, animals such as pigeons, gulls and ducks become part of the things to see and play with while being in the space. These especially attract children who likes to interact with animals. I love the ducks here. My youngest loves looking at birds and ducks ... that will be attractive for her, to watch ducks and chase birds on the terrace – Interview TB#5



Photo 13 - Pigeons and ducks act as an added visual attraction and play things for adults and kids while being on the street

5.0 Conclusion

Pedestrianisation of streets are increasingly being considered as cities look at creating healthier and more sustainable streets. Building on from Gehl's (1987) idea that static activities are fundamental to the social needs of street users and Mehta's (2013) argument that the streets have an essential role of providing a setting for sociability, this study has sought to understand the usage and perception of what is considered as "successful" pedestrian streets using public life studies and interviews of various street users. Ultimately, this helps street designers to gain a deeper understanding on how to make more attractive and sociable pedestrian streets.

Analysis has revealed that these "successful" pedestrian streets play both their link and place functions well. Pedestrian streets are more adept at balancing the two conflicting roles as both are executed on the same level, that is at the pedestrian level. This is unlike non-pedestrian streets where place users, who would mainly be pedestrians, may need to compete with link users, who may be on cars and bicycles.

These "successful" pedestrian streets also support a wide range of different social activities, that can be categorized into passive, fleeting and enduring social activities, dependent on duration of these activities and whether there is interaction with other street users. Support of these social activities may be in the form of the built environment design (i.e.: multilevel or at grade), street furniture, street arts, incorporation of nature, and many more. Supporting social activities on the streets serve to encourage even more social activity as people increasingly see the street as a public space to spend time in.

All three study sites are generally perceived positively by the public in terms of safety, comfort, accessibility and diversity. This contributes to people's desire to be and spend time on the streets, making streets desirable public spaces and more than just channels for movement. As tourist attractions, they attract pedestrians from all over the world to come and experience the spaces themselves. However, a deeper exploration of the perceptions reveals a more detailed understanding how and why the perceptions are formed and how it differs between users. This insight is helpful to identify root causes and solutions to improve the perception of the streets.

Despite their success, the streets of this study are still subject to improvements. Most notably, the wayfinding at these locations needs to be improved. All three streets are highly patronized by tourists and hence, wayfinding is an important feature of these streets. The different elevations of the streets at South Bank and the Barbican expectedly poses a challenge for users to find their way around. Interestingly, wayfinding at Leicester Square too was perceived as needing improvement mainly

because of the wide area of the square and the absence of direction signs in the square itself. Fortunately, wayfinding at Leicester Square is easily remedied using GPS technology on phones, such as Google Maps, as areas can all be seen at plan view, unlike at South Bank and the Barbican.

While this study has been able to explore, in-depth, how pedestrians use and perceive the streets, there are areas where the research could be strengthened. All three areas of study are touristic places with unique identities, attracting tourists from all over the world. This reflects these streets' high levels of place function which indicates that the findings may not be replicable to all types of streets. Moreover, the size of the interview sample only gives a snapshot of the perceptions on the streets and little can be ascertained about the representation of the sample. The 8 interviews conducted in Leicester Square, for example, may not be representative of the 2.5 million visitors it welcomes in a week (Leicester Square, n.d.). The nature of respondent selection also meant that those who 'selfselects' to be on the streets, with time to spare were most likely to come forward and share their positive experience. The observations on the street serve to help balance out the skewed perceptions gained from the interviews. However, observational studies such as in this study are vulnerable to the bias of the observer. As such, it is best done by trained professionals whose eyes can discern the type of information needed and perceive new connections (Gehl and Svarre, 2013). Additionally, the mapping exercise is useful in plotting out the locations as well as the types of social activities that take place. However, as this method uses the plan view, in a permeable area with multiple levels of public spaces such as at South Bank and the Barbican, mapping activities using a plan map may not be able to replicate exact locations of where activities take place.

Further, the interviews uncovered a number of nuanced issues and points and it is beyond the scope of the present analysis to address them all. The exploration of usage and perception of different street users highlighted the differences between different individuals who are from different background and cultures. It has been argued that street usage is dependent on culture (Rapoport, 1987) and the findings has supported this with the addition that perception is dependent on culture as well. Further research is needed to understand how much local population culture influences the local street culture and how much both of these influences the street usage and perception. More research is needed to understand how and why individuals from different cultures change their behaviours and street usage when on these streets, as they would act differently on streets with different cultures. Understanding this may help street designers understand how best to design streets that not only attracts local community but also maintains and magnifies its unique sense of identity.

6.0 Reference

Appleyard, D. (1981) Livable Streets. Berkeley, CA: University of California Press

Carmona, M. (2019) "Principles for public space design, planning to do better," *Urban design international*, 24(1), pp. 47–59. doi: 10.1057/s41289-018-0070-3.

Cullen, G. (1971) The Concise Townscape. Oxford, England: Architectural Press.

Davies, D. G., Chinn, L., Buckle, G. S. and Reid, S. J. (2003) *Cycling in Vehicle Restricted Areas - TRL Report TRL583*. TRL Limited. Available at: https://trl.co.uk/uploads/trl/documents/TRL583.pdf (Accessed: 21 July 2022).

Digimap (2022). London. Available at: https://digimap.edina.ac.uk/roam/map/os (Accessed: 23 July 2022).

Gehl, J. (1987) Life between buildings : using public space / Jan Gehl; translated by Jo Koch. New York: Van Nostrand Reinhold.

Gehl, J. (2010) Cities for People. Washington, D.C., DC: Island Press.

Gehl, J. and Svarre, B. (2013) How to Study Public Life. London: Island Press.

Jacobs, J. (1961). The Death and Life of Great American Cities. New York: Random House.

Jacobs, A. B. (1993) Great Streets / Allan B. Jacobs. Cambridge, Mass.: MIT Press.

Jones, P., Boujenko, N. and Marshall, S. (2007) *Link & place : a guide to street planning and design / Peter Jones, Natalya Boujenko, Stephen Marshall.* London: Local Transport Today.

Jukes, P. & Watkins, T. (1991) A shout in the street : an excursion into the modern city / written and compiled by Peter Jukes ; additional photographs by Teresa Watkins. Berkeley: University of California Press

Leicester Square (no date) *About Leicester Square London, Leicester Square*. Available at: https://www.leicestersquare.london/about/ (Accessed: 22 August 2022).

Maslow, A. H. (1943) "A theory of human motivation," *Psychological Review*, 50(4), pp. 370–396. doi: 10.1037/h0054346.

Mehta, V. (2013) The Street: A quintessential social public space. Routledge.

OpenStreetMap (n.d.). *Leicester Square*. Available at: https://www.openstreetmap.org/#map=17/51.51060/-0.12828 (Accessed: 23 July 2022).

OpenStreetMap (n.d.). *The Barbican*. Available at: https://www.openstreetmap.org/#map=17/51.51964/-0.09381 (Accessed: 23 July 2022).

OpenStreetMap (n.d.). South Bank Centre. Available at: https://www.openstreetmap.org/#map=17/51.50654/-0.11478 (Accessed: 23 July 2022). Project for Public Spaces, PPS (n.d.) *What Makes a Successful Place?* Available at: https://www.pps.org/article/grplacefeat (Accessed: 14 July 2022)

Rapoport, A. (1987) "Pedestrian Street Use: Culture and Perception," in Moudon, A. V. (ed.) *Public Streets for Public Use*. New York: Van Nostrand Reinhold Company.

Road Task Force (2013) *The vision and direction for London's streets and roads: Executive summary*. Available at: https://content.tfl.gov.uk/rtf-report-executive-summary.pdf (Accessed: 9 December 2021)

Tibbalds, F. (1992) Making people-friendly towns : improving the public environment in towns and cities / Francis Tibbalds. Harlow: Longman.

Transport for London, TfL (2017) *Healthy Streets for London*. Available at: https://content.tfl.gov.uk/healthy-streets-for-london.pdf (Accessed: 9 December 2021)

Transport for London (TfL) (2018) FOI Request Detail: Pedestrianisation of Oxford Street, Transport for London. Available at: https://tfl.gov.uk/corporate/transparency/freedom-of-information/foi-request-detail?referenceId=FOI-2803-1718 (Accessed: 2 April 2022).

Transport for London, TfL (2021) *Delivering the Mayor's Transport Strategy 2020/21* Available at: https://content.tfl.gov.uk/the-mayors-transport-strategy-update-2020-21-acc.pdf (Accessed: 23 June 2022)

UN-Habitat (2013) *Streets as Public Spaces and Drivers of Urban Prosperity*. Available at: https://mirror.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3513&AspxAutoDetectCookie Support=1 (Accessed: 1 April 2022).

Valentine, G. (2004) "Tell me about ... : using interviews as a research methodology," in Flowerdew, R. and Martin, D. (eds.) *Methods in Human Geography - A guide for students doing a research project*. 2nd Edition. London, England: Routledge, pp. 215–230.

Whyte, W. (1980) The Social Life of Small Urban Spaces. Washington, DC: Conservation Foundation.

Zaha Hadid Architects (2018) ZHA Walkable London, Issuu. Available at: https://issuu.com/walkablelondon/docs/zhawalkablelondon_issue (Accessed: 4 April 2022).

7.0 Appendix

No	Location	Label	Gender	Age
1		LS#1	F	0
2	are	LS#2	F	Y
3	Leicester Square	LS#3	Μ	Y
4		LS#4	Μ	0
5		LS#5	Μ	0
6		LS#6	Μ	Y
7		LS#7	F	Y
8		SB#1	F	Y
9		SB#2	Μ	Y
10		SB#3	Μ	Y
11	ž	SB#4	F	Y
12	South Bank	SB#5	Μ	0
13	uth	SB#5	F	0
14	So	SB#6	F	0
15		SB#6	Μ	0
16		SB#7	F	Y
17		SB#8	F	Y
18		TB#1	Μ	0
19		TB#2	Μ	0
20	<u> </u>	TB#3	F	Y
21	oica	TB#3	Μ	Y
22	The Barbican	TB#4	F	0
23	Je E	TB#5	F	Y
24	È	TB#6	F	Y
25		TB#7	Μ	Y
26		TB#8	Μ	Y

Table 1 - List of Interviewees

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Table 2 - List of Interview Questions

- 1. Can you tell me a bit on how you came to know of this place and how you arrived here?
- 2. Take a look around. What about this place that makes you want to come or spend time in here?
- 3. Can you tell me what you would do in this space (what will you see and do, where you will/will not go, spend time, avoid)? Why?
- 4. Is this space suitable for different types of pedestrians (e.g. children, the elderly, people with disabilities, females relative to males)? What else is required for different types of users?
- 5. On a scale of 1 to 5, how would you rate/perceive this street, overall? Do you like it / is it a good public space? Would you spend a lot of time here?
- 6. How do you feel being in this space? Do you have any issues with the space as it currently is? Would you have any suggestions on how to improve this public space?

Additional Photos of the Study Sites Leicester Square



Photo 1 - Playful Statue: One of Leicester Square's statue of iconic fictional characters, Charlie Chaplin, adds playfulness to the street as street users pose and play with the statue when they are on the street



Photo 2 - Accessible: With its gentle slopes and wide street, the streets of Leicester Square are suitable and comfortable for all ages and abilities, allowing them the opportunity to enjoy the street as well.



Photo 3 - Safe: While the presence of too many of the homeless may impose unsafe feelings for some, their presence can also mean that the place is safe – safe enough to sleep in, a state where people are most



Photo 4 - Wide Streets: The design of the streets at Leicester Square supports both its link and place functions well. Observed in this picture are people who uses the street for link activity as well as fleeting social activity such as watching the street performance and enduring social activity such street performing.

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Photo 5 - Orientating Oneself: Leicester Square is also used as a place to gather for tour groups, a fleeting social activity, as the streets are well-known and wide enough to accommodate group gatherings on the



Photo 6 - Photography: One of the famous angles for photography shots, with the Swiss Glockenspiel Clock, the Cantonal Tree Flags and Piccadilly Circus in same picture. Also observed here are the fleeting social activity of taking photographs and the enduring social activity of street artists setting up their place for drawing portraits.

South Bank



Photo 7 - Multi-level: The public space around South Bank Centre has several different levels connected by stairs, painted in bright yellow that contrasts well with the rest of the bare concrete. This helps able-bodied users identify connections between levels, but also makes it difficult for those who can't use stairs to find accessible options.



Photo 8 - Hidden Accessibility: As seen in the photo, stairs are designed to prominent, identified easily, while accessible options are hidden (in this photo, the ramp to go to the lower level is hidden below the train bridge)



Photo 9 - Gendered Activities: The Southbank Skatepark is a premier skateboarding site, a public space dedicated to play. While not explicitly gendered, the activity, hence space, is male dominated. In this picture, it can be observed that there are six males, but no females.



Photo 10 - Unwelcoming: Accessible options are available in South Bank, but some, such as this elevator that is provided for the access to the Festival Terrace and Golden Jubilee Bridges, are highly vandalized with graffiti, looks dirty and smells bad. The lack of cleanliness leads to people avoiding using this facility.



Photo 11 - Comfortable Seating: Public seats along the river are fully occupied by many different users, mainly performing passive social activities such as eating and reading. Also observed is a parent who is pushing a stroller comfortably, but it can be observed that parts of the pavement are undulating which may pose some discomfort and challenge for wheelchair users



Photo 12 - Safe Space: A regular sight at the South Bank during summer, where groups of school kids can be observed scattered along the Queens Walk. The safe and comfortable streets of South Bank make it an ideal place for school outings.

The Barbican



Photo 13 - A Public Space: This photo shows the Lakeside Terrace where observations and interviews were conducted – a space accessible to the public, but may not seem like it to those unfamiliar with the area due to its built-up design. Also captured in this photo is the lake, which was noted to be a "good contrast to the concrete."



Photo 14 - Pleasantly Lost: Wayfinding boards that were perceived as being located "too far apart", contributing to the sense of being lost in the area, which has been embraced as part of the experience in the Barbican.



Photo 15 - Green Efforts: Temporary green areas were introduced to further add to the greenery of the area. This effort received mixed reviews as some appreciates the additional "green" while some perceive it as a "flimsy effort" that does not go well with the "grandeur of the concrete."



Photo 16 - Hidden Public Areas: With a large collection of music and a children library, the public library on Level 2 of the Barbican Centre are some of the areas accessible to public which may only be known to those who are well-versed with the area.



Photo 17 - Beautiful Background: The streets at the Barbican are often used as settings for photoshoots such as this one due to the aesthetics of the built environment



Photo 18 - Place for Gathering: The wide design of the street, with low levels of link usage allows place activities to happen throughout the area. The picture above shows a gathering of tourists for an architectural tour visit of the Barbican, as many come to the area to know more about this built environment.

RISK ASSESSMENT FORM



FIELD / LOCATION WORK

DEPARTMENT/SECTION: BARTLETT SCHOOL OF PLANNING LOCATION(S): LONDON, UNITED KINGDOM PERSONS COVERED BY THE RISK ASSESSMENT: NUR HAZEERAH HASHIM

BRIEF DESCRIPTION OF FIELDWORK (including geographic location):

Fieldwork comprises of observational studies, questionnaire distribution and interviews at three different pedestrian spaces in London, namely Leicester Square, Southbank and Barbican Centre.

COVID-19 RELATED GENERIC RISK ASSESSMENT STATEMENT:

Coronavirus disease (COVID-19) is an infectious disease caused by coronavirus SARS-CoV-2. The virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. Droplets fall on people in the vicinity and can be directly inhaled or picked up on the hands and transferred when someone touches their face. This risk assessment documents key risks associated fieldwork during a pandemic, but it is not exhaustive and will not be able to cover all known risks, globally. This assessment outlines principles adopted by UCL at an institutional level and it is necessarily general. Please use the open text box 'Other' to indicate any contingent risk factors and control measures you might encounter during the course of your dissertation research and writing.

Please refer to the Dissertation in Planning Guidance Document (available on Moodle) to help you complete this form.

Hazard 1: Risk of Covid -19 infection during research related travel and research related interactions with others (when face-to-face is possible and/or unavoidable) Risk Level - Medium /Moderate

Hisk Level - Medium / Moderate

Existing Advisable Control Measures: Do not travel if you are unwell, particularly if you have COVID-19 symptoms. Self-isolate in line with NHS (or country-specific) guidance.

Avoid travelling and face-to-face interactions; if you need to travel and meet with others:

- If possible, avoid using public transport and cycle or walk instead.

- If you need to use public transport travel in off-peak times and follow transport provider's and governmental guidelines.

- Maintain (2 metre) social distancing where possible and where 2 metre social distancing is not achievable, wear face covering.

- Wear face covering at all times in enclosed or indoor spaces.
- Use hand sanitiser prior to and after journey.
- Avoid consuming food or drinks, if possible, during journey.
- Avoid, if possible, interchanges when travelling choose direct route.
- Face away from other persons. If you have to face a person ensure
- that the duration is as short as possible.

- Do not share any items i.e. stationary, tablets, laptops etc. If items need to be shared use

disinfectant wipes to disinfect items prior to and after sharing.

- If meeting in a group for research purposes ensure you are following current country specific guidance on face-to-face meetings (i.e rule of 6 etc.)

- If and when possible meet outside and when not possible meet in venues with good ventilation (e.g. open a window)

- If you feel unwell during or after a meeting with others, inform others you have interacted with, self-isolate and get tested for Covid-19

- Avoid high noise areas as this mean the need to shout which increases risk of aerosol transmission of the virus.

- Follow one way circulation systems, if in place. Make sure to check before you visit a building.

- Always read and follow the visitors policy for the organisation you will be visiting.
- Flush toilets with toilet lid closed.
- -'Other' Control Measures you will take (specify):

NOTE: The hazards and existing control measures above pertain to Covid-19 infection risks only. More generalised health and safety risk may exist due to remote field work activities and these are outlined in your Dissertation in Planning Guidance document. Please consider these as possible 'risk' factors in completing the remainder of this standard form. For more information also see: <u>Guidance Framework for Fieldwork in Taught and MRes Programmes, 2021-22</u>

Consider, in turn, each hazard (white on black). If **NO** hazard exists select **NO** and move to next hazard section.

If a hazard does exist select **YES** and assess the risks that could arise from that hazard in the risk assessment box.

Where risks are identified that are not adequately controlled they must be brought to the attention of your Departmental Management who should put temporary control measures in place or stop the work. Detail such risks in the final section.

ENVIRONMENT	The environment always represents a safety hazard. Use space below to identify and assess any risks associated with this hazard
e.g. location, climate, terrain, neighbourhood, in outside organizations, pollution, animals.	 Adverse weather such as weather too hot, or rainy. Risk of attack/abuse/personal injury while working in public Working within other establishments Risk of getting lost
	Risk Level: Low
	Examples of risk: adverse weather, illness, hypothermia, assault, getting lost. Is the risk high / medium / low ?
CONTROL MEASURES	Indicate which procedures are in place to control the identified risk
	porates Foreign Office advice ntres are used for rural field work
/ participants will we	ar appropriate clothing and footwear for the specified environment
/ refuge is available	
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implemented: 1. Check we	rganisations is subject to their having satisfactory H&S procedures in place DL MEASURES: please specify any other control measures you have wather forecast for the day before going out	
 Follow pre Study the Plan your 	n and not bring too much attention to yourself emises' guidelines while on the other establishments area before getting around route carefully and have secondary routes afety/emergency protocols if attacked/lost	
EMERGENCIES	Where emergencies may arise use space below to identify and assess	s an
e.g. fire, accidents	 risks 1. Loss of belonging / equipment in public 2. General health and safety precautions (health, fire, accidents can happe anytime, anywhere) 	en
	Risk Level: Low	
	Examples of risk: loss of property, loss of life	
CONTROL MEASURES	Indicate which procedures are in place to control the identified risk	
participants have	registered with LOCATE at http://www.fco.gov.uk/en/travel-and-living-abroad	/
	for emergency services are known to all participants	-
participants have	means of contacting emergency services	
a plan for rescue	has been formulated, all parties understand the procedure	
the plan for rescu	e /emergency has a reciprocal element	
	DL MEASURES: please specify any other control measures you have	
implemented:		
1. To keep a	n eye on belongings in public areas	
1. To keep a 2. Turn on lo	ocation services on phone when in conducting research	
1. To keep a 2. Turn on lo		
1. To keep a 2. Turn on lo	ocation services on phone when in conducting research	201
1. To keep a 2. Turn on lo 3. Have eme	ocation services on phone when in conducting research orgency numbers on standby for emergencies	201
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1. To keep a 2. Turn on lo 3. Have eme	ocation services on phone when in conducting research orgency numbers on standby for emergencies	[,] 201

EQUIPMENT	Is equipment used?	NO	If 'No' move to next hazard If 'Yes' use space below to identify and assess any risks
e.g. clothing, outboard motors.	Examples of risk: injury. Is the risk		iate, failure, insufficient training to use or repair,
CONTROL MEASURE	S Indicate which p	rocedures	s are in place to control the identified risk
participants ha all equipment l all users have special equipm	has been inspected, be been advised of correct nent is only issued to p	any nece efore issue ot use ersons tra	oment is followed ssary equipment appropriate for the work e, by a competent person ined in its use by a competent person fy any other control measures you have
LONE WORKING	Is lone working a possibility?	YES	If 'No' move to next hazard If 'Yes' use space below to identify and assess
			any
e.g. alone or in isolatio Ione interviews.		use/attack	risks nelp /personal safety
-	2. Risk of ab	use/attack	risks nelp /personal safety
-	 Risk of about the second second	use/attack travelling	risks nelp /personal safety
-	 Risk of about 3. Risk when Risk Level: Low Examples of risk: 	use/attack travelling difficult to	risks help /personal safety alone
CONTROL MEASURE / the departmen / lone or isolated / location, route / all workers have whistle	 2. Risk of abu 3. Risk when Risk Level: Low Examples of risk: S Indicate which point tal written Arrangement d working is not allowe and expected time of point 	use/attack travelling difficult to rocedures at for lone/ d return of lo g an alarm	risks help /personal safety alone summon help. Is the risk high / medium / low? sare in place to control the identified risk out of hours working for field work is followed one workers is logged daily before work commences in the event of an emergency, e.g. phone, flare,

OTHER CONTROL MEASURES: please specify any other control measures you have 1 implemented: 1. While working alone, must stay in public places where you can be seen by others 2. Have means or escape or asking for help in public 3. Travel during daylight or well-lit areas only 4. Plan journey in advance 5. Let people know where you are going and turn on location services on phone 6. Avoid rarely used / empty areas FIELDWORK 2 May 2010

	IEALTH				ays represents a safety hazard. Use space ony risks associated with this Hazard.					
perso	accident, illness, onal attack,	 Risk of personal health issues Dehydration 								
consid	ial personal iderations or	Risk level: low								
vulnei	erabilities.	Examples of risk: injury, asthma, allergies. Is the risk high / medium / low?								
	TROL SURES	Indicate which pro	cedures	s are	in place to control the identified risk					
	all participants	have had the necessa	ary inocu	Ilatic	ns/ carry appropriate prophylactics					
/	participants hav physically suite		e physica	al de	emands of the research and are deemed to be					
	participants have encounter	ve been adequate adv	vice on h	arm	ful plants, animals and substances they may					
	participants wh	o require medication	should c	arry	sufficient medication for their needs					
/	OTHER CONT implemented:	ROL MEASURES: ple	ease spe	ecify	ROL MEASURES: please specify any other control measures you have					
	will be c 2. Stop if f	done eeling unwell								
	will be c 2. Stop if f	done eeling unwell								
TRAN	will be c 2. Stop if f	done eeling unwell			al water bottle Move to next hazard Use space below to identify and assess any					
	will be c 2. Stop if f 3. Ensure	done eeling unwell well hydrated and to b Will transport be required	NO YES	rson / aris	al water bottle Move to next hazard					
e.g. h CON1	will be c 2. Stop if f 3. Ensure	done eeling unwell well hydrated and to b Will transport be required Examples of risk: a training Is the risk high / med	NO YES Accidents dium / lo	rsona / aris w?	al water bottle Move to next hazard Use space below to identify and assess any risks					
e.g. h CONT	will be c 2. Stop if f 3. Ensure NSPORT Mired vehicles TROL SURES Only public tran the vehicle will transport must drivers comply drivers have be there will be more rest periods sufficient spare p	 done done deeling unwell well hydrated and to be Will transport be required Examples of risk: a training Is the risk high / med Indicate which pro asport will be used be hired from a reputation be properly maintained with UCL Policy on D been trained and hold the ore than one driver to poarts carried to meet fore 	bring per NO YES Accidents dium / lo cedures able sup ed in com rivers ht he appro prevent eseeable	I aris aris w? s are plier nplia ttp:// opria drive eme	All water bottle Move to next hazard Use space below to identify and assess any risks ing from lack of maintenance, suitability or in place to control the identified risk ince with relevant national regulations www.ucl.ac.uk/hr/docs/college_drivers.php te licence er/operator fatigue, and there will be adequate					
e.g. h CON1	will be c 2. Stop if f 3. Ensure NSPORT ired vehicles TROL SURES only public tran the vehicle will transport must drivers comply drivers have be there will be more rest periods sufficient spare p OTHER CONT	 done done deeling unwell well hydrated and to be Will transport be required Examples of risk: a training Is the risk high / med Indicate which pro asport will be used be hired from a reputation be properly maintained with UCL Policy on D been trained and hold the ore than one driver to poarts carried to meet fore 	bring per NO YES Accidents dium / lo cedures able sup ed in com rivers ht he appro prevent eseeable	I aris aris w? s are plier nplia ttp:// opria drive eme	al water bottle Move to next hazard Use space below to identify and assess any risks ing from lack of maintenance, suitability or in place to control the identified risk ince with relevant national regulations www.ucl.ac.uk/hr/docs/college_drivers.php te licence er/operator fatigue, and there will be adequate rgencies					

PUBLI	IG WITH THE	Will people be dealing with public	YES	If 'No' move to next hazard If 'Yes' use space below to identify and any	assess	
				risks		
e.g. interviews, observing		 Risk of abuse/attack/personal safety. Risk of causing offence Aggressive behavior Risk Level: Low Examples of risk: personal attack, causing offence, being misinterpreted. Is the risk high / medium / low? 				
CONTF MEASL		Indicate which proc	edures a	re in place to control the identified risk		
/ /	participants do interviews are of OTHER CONTF implemented: 1. Vet throw 2. Conduct 3. Keep yo 4. Be awar	onducted at neutral lo ROL MEASURES: plea ugh questionnaires an interviews in public ur distance e of dangerous / defer	night cau: cations oi ase speci d intervie	se offence or attract unwanted attention r where neither party could be at risk fy any other control measures you have w questions before going on site		
	5. Keep U(6. Seek pe		d commur	nicate intention clearly		
FIELDV	6. Seek pe	rmission / consent and	d commu	nicate intention clearly	May 20	

WORKING ON OR	Will people work on	NO	If 'No' move to next hazard
NEAR WATER	or near water?		If 'Yes' use space below to identify and assess any risks
e.g. rivers, marshland sea.	Examples of risk: dro medium / low?	owning, n	nalaria, hepatitis A, parasites. Is the risk high /
CONTROL MEASURES	Indicate which proc	cedures	are in place to control the identified risk
prove a threat			akes place outside those times when tides could
coastguard infor prove a threat all participants a participants alwa boat is operated all boats are equiparticipants hav	are competent swimmer ays wear adequate prof l by a competent person uipped with an alternati e received any appropr	s ective ec n ve means iate inoci	akes place outside those times when tides could quipment, e.g. buoyancy aids, wellingtons s of propulsion e.g. oars
coastguard infor prove a threat all participants a participants alw boat is operated all boats are equiparticipants hav	are competent swimmer ays wear adequate prof l by a competent person uipped with an alternati e received any appropr ROL MEASURES: pleas	s ective ec n ve means iate inoci	akes place outside those times when tides could quipment, e.g. buoyancy aids, wellingtons s of propulsion e.g. oars ulations
Coastguard infor prove a threat all participants a participants alw boat is operated all boats are equ participants hav OTHER CONTR	are competent swimmer ays wear adequate prof by a competent person uipped with an alternative e received any appropr ROL MEASURES: pleas Do MH activities take place? Examples of risk: str	rs rective ec n ve means iate inocu se specify NO	akes place outside those times when tides could quipment, e.g. buoyancy aids, wellingtons s of propulsion e.g. oars ulations y any other control measures you have implemented: If 'No' move to next hazard If 'Yes' use space below to identify and assess any
coastguard infor prove a threat all participants a participants alwa boat is operated all boats are equiparticipants hav OTHER CONTR MANUAL HANDLING (MH) e.g. lifting, carrying, moving large or heavy equipment, physical unsuitability for the	are competent swimmer ays wear adequate prof by a competent person uipped with an alternative received any appropr ROL MEASURES: please Do MH activities take place? Examples of risk: str	s ective ec n ve means iate inocu se specify NO ain, cuts,	akes place outside those times when tides could quipment, e.g. buoyancy aids, wellingtons s of propulsion e.g. oars ulations y any other control measures you have implemented: If 'No' move to next hazard If 'Yes' use space below to identify and assess any risks

the departmental written Arrangement for MH is followed the supervisor has attended a MH risk assessment course all tasks are within reasonable limits, persons physically unsuited to the MH task are prohibited from such activities all persons performing MH tasks are adequately trained equipment components will be assembled on site any MH task outside the competence of staff will be done by contractors OTHER CONTROL MEASURES: please specify any other control measures you have implemented: 4

FIELDWORK

May 2010

SUBSTANCES	Will participants work with substances	NO	If 'No' move to next hazard If 'Yes' use space below to identify and assess any risks
e.g. plants, chemical, biohazard, waste			pisoning, infection, illness, burns, cuts. Is the risk
CONTROL MEASURES	Indicate which pro	cedures a	re in place to control the identified risk
all participants a they may encou participants who needs waste is dispose suitable contain	are given information, tr nter b have allergies have ac ed of in a responsible m ers are provided for haz	aining and dvised the nanner zardous wa	g with hazardous substances and waste are followed I protective equipment for hazardous substances leader of this and carry sufficient medication for their aste any other control measures you have implemented:
OTHER HAZARDS	Have you identified		If 'No' move to next section
	any other hazards?		If 'Yes' use space below to identify and assess any risks
e. any other hazards nust be noted and assessed here.	Hazard: Risk: is the risk		
CONTROL	Give details of con	trol meas	ures in place to control the identified risks
Have you identified a adequately controlle	any risks that are not d?	NO YES	Move to Declaration Use space below to identify the risk and what action was taken

DE	CLARATION	The work will be reassessed whenever there is a significant change and at le annually. Those participating in the work have read the assessment.	ast
	Select the appropr		
/		have assessed the activity and associated risks and declare that there is no	
1	I the undersigned controlled by	have assessed the activity and associated risks and declare that the risk will be	1
	the method(s) liste	ed above	
NU	R HAZEERAH HAS	SHIM	
NA	ME OF SUPERVISC	OR	

Ethical Clearance Pro Forma

It is important for you to include all relevant information about your research in this form, so that your supervisor can give you the best advice on how to proceed with your research.

You are advised to read though the relevant sections of UCL's Research Integrity guidance to learn more about your ethical obligations.

Please ensure to save a copy of your completed questionnaire BEFORE hitting 'submit' (you will not be able to access it later).

Page 1

Submission Details

Please select your programme of study.
Transport and City Planning
Please indicate the type of research work you are doing.
Dissertation in Planning (MSc)
Dissertation in City Planning (MPlan)
Major Research Project
Please provide the current working title of your research.
Differences in perspectives and usage of public spaces: case studies of pedestrian places in London
Please select your supervisor from the drop-down list.
Hickman, Robin
Research Details
Please indicate here which data collection methods you expect to use. Tick all that apply.
Please indicate here which data collection methods you expect to use. Tick all that apply.
Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions)
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial Intervention study (including changing environments)
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial Intervention study (including changing environments) Systematic review
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial Intervention study (including changing environments) Systematic review Secondary data analysis
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial Intervention study (including changing environments) Systematic review
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial Intervention study (including changing environments) Systematic review Secondary data analysis
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial Intervention study (including changing environments) Systematic review Secondary data analysis Advisory/consultation groups
 Please indicate here which data collection methods you expect to use. Tick all that apply. Interviews Focus Groups Questionnaires (including oral questions) Action research Observation / participant observation Documentary analysis (including use of personal records) Audio-visual recordings (including photographs) Collection/use of sensor or locational data Controlled trial Intervention study (including changing environments) Systematic review Secondary data analysis Advisory/consultation groups Please indicate where your research will take place.

App App 3 Will Persinfo This • A info This • A info • C d • S • C • C • C • C • C • C • C • C	 tricipants' means human participants and their data (including sensor/locational data and observational notes/images.) Yes O No propriate Safeguard, Data Storage and Security I your research involve the collection and/or use of personal data? sonal data is data which relates to a living individual who can be identified from that data or from the data and other romation that is either currently held, or will be held by the data controller (you, as the researcher). si includes: Any expression of opinion about the individual and any intentions of the data controller or any other person toward the individual. Sensor, location or visual data which may reveal information that enables the identification of a face, address etc. (some sosted scover only one property). Combinations of data which may reveal identifiable data, such as names, email/postal addresses, date of birth, ethnicity, descriptions of health diagnosis or conditions, computer IP address (of relating to a device with a single user). Yes No our research using or collecting: special category data as defined by the General Data Protection Regulation*, and/or data which might be considered sensitive in some countries, cultures or contexts?
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0	Yes No
	you confirm that all personal data will be stored and processed in compliance with the General Data Protection Regulation IPR 2018)?
	Yes
) No
C) I will not be working with any personal data
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11	confirm that:
	The information in this form is accurate to the best of my knowledge. I will continue to reflect on, and update these ethical considerations in consultation with my supervisor.
Y	ou <u>MUST</u> download a copy of your responses to submit with your proposal, and for your own reference.
Т	o do this, use the print screen function of your web browser, and print to PDF in order to save.
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FINAL GRADE

GENERAL COMMENTS

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